

State of Student Food Security

Fall 2022 – Spring 2024



MONTCLAIR

STATE UNIVERSITY

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Acknowledgments

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We also thank the many offices, departments, groups, and entities at Montclair State University who partner to eliminate student food insecurity. These include (listed alphabetically):

- Auxiliary Services
- Food Recovery Network
- Gourmet Dining
- Hunger Free Campus Taskforce
- Office of the Dean of Students
- PSEG Institute for Sustainability Studies
- Red Hawk Pantry
- Residence Life
- Student Development and Campus Life
- University Facilities

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Executive Summary

Consistent access to sufficient, safe, and nutritious food—known as food security—is critical to student health, well-being, and academic success. Yet food insecurity (lack of reliable access to adequate food) remains a significant issue on college campuses. This report examines the state of food security among students at Montclair State University during the **Fall 2022**, **Spring 2023**, and **Spring 2024** semesters.

Methods

To assess food security, we utilized an anonymous, online, cross-sectional survey conducted via Qualtrics. Surveying started 30 days after the semester began and continued until the last day of classes. All enrolled students were invited to participate though participation rates varied by semester, with 12.1% of enrolled students responding to the survey in Fall 2022, 10.1% in Spring 2023, and 5.9% in Spring 2024. The survey included demographic questions and the United States Department of Agriculture's (USDA) 18-item household food security measure. Descriptive statistics and logistic regressions were used to determine the prevalence and predictors of food insecurity each semester.

Key Findings

Survey participants largely consisted of students aged 18-23 years, with a majority identifying as female and White or Latino/a/x. About half of participants were employed, many working 20+ hours per week.

Across the three semesters, **food insecurity affected nearly half of students surveyed (Figure 1)**. Food insecurity includes both low food security and very low food security, the latter of which is the most severe. At Montclair, **very low food security was consistently reported by over a quarter of participants**. These levels greatly exceed national averages (in 2023, 13.5% of U.S. households were food insecure).

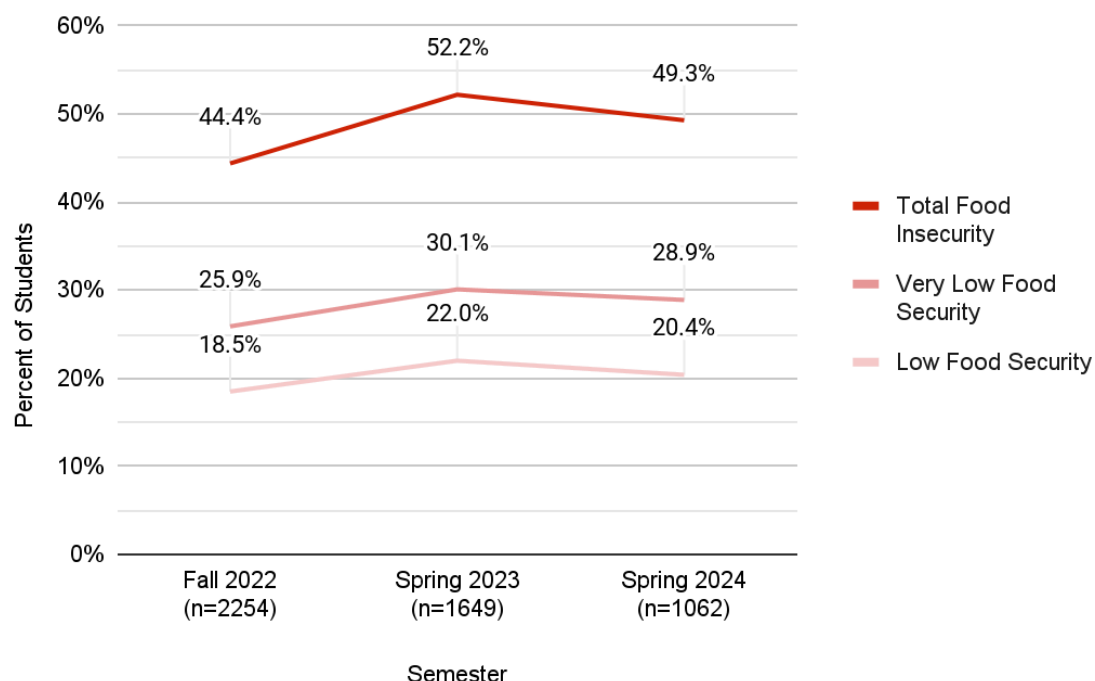


Figure 1. Food insecurity levels in the past 30 days among survey participants, by semester

Students at the **highest risk** of food insecurity consistently identify as **genderqueer, Black or African American, first-generation college student, or report not having enough time to eat before class**.

Additionally, **students living at home with a parent or guardian** were at **lower risk** of food insecurity across all three semesters.

Food Insecurity Solutions at Montclair

Montclair State University has implemented several initiatives to combat food insecurity, including:

- **Hunger-Free Campus Task Force:** A collaborative campus effort to address student food insecurity
- **Red Hawk Pantry:** Supplies food and personal care items to students, faculty, and staff in need
- **Food Champion Program:** Alerts participants of surplus food from catered meetings and events
- **Food Recovery Network:** Recovers excess food from campus dining and provides to the Pantry
- **Swipe Out Hunger:** Allows students to donate two meal swipes to peers facing food insecurity
- **Supplemental Nutrition Assistance Program (SNAP):** On-campus assistance with SNAP enrollment
- **Supermarket Shuttle:** Free transportation from campus to local supermarkets that accept SNAP

Recommendations for Additional Efforts

Food insecurity remains a pervasive issue at Montclair State University, affecting a substantial portion of the student body. High rates of food insecurity, especially very low food security, highlight the need for continued and enhanced efforts. The association between student food insecurity and various demographic and socioeconomic factors suggests that interventions must be targeted and multifaceted.

1. **Increase Awareness:** Utilize multiple communication channels, including social media, university platforms, and information sessions to raise awareness about available food security resources.
2. **Targeted Support:** Develop programs specifically designed for high-risk groups, such as genderqueer students, Black or African American students, and first-generation college students
3. **Expand Food Access:** Implement mobile pantries and satellite locations across campus to increase food assistance accessibility
4. **Financial Literacy and Meal Planning:** Offer workshops to help students manage their resources effectively and make health and informed food choices
5. **Cultural Sensitivity:** Collaborate with local community organizations to provide culturally-appropriate food options for international and minority students

Next Steps

The ongoing prevalence of food insecurity at Montclair State University calls for a sustained and integrated approach, ensuring all students have access to the resources necessary for a healthy and successful academic career. Food insecurity trends will continue to be monitored through regular surveys, with consideration of expanding data collection efforts to include more qualitative insights into students' experiences. Collaboration with other institutions to adopt innovative food security initiatives could also enhance the effectiveness of current programs. Additionally, Montclair should explore further funding opportunities and partnerships to support new and ongoing food security efforts.

By implementing recommendations detailed in this report and learning from other campuses, Montclair can make significant strides in reducing food insecurity and improving the well-being of its students.

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Introduction

Food security is the access to sufficient, safe, and nutritious food that meets dietary needs and preferences for an active and healthy life. This concept is based on the 1996 World Food Summit, which concluded that food security is achieved when everyone has consistent physical and economic access to adequate, safe, and nutritious food.¹

In contrast, food insecurity refers to the lack of consistent access to enough food for an active, healthy life. It is often associated with limited or uncertain availability of nutritionally adequate foods.² The reality of food insecurity encompasses a range of experiences, from reduced quality and variety of food to disrupted eating patterns and reduced food intake. It can significantly impact physical and mental health.³

The prevalence of food insecurity varies globally, but it is a critical issue in both developing and developed countries. Research indicates that about 10.5% of U.S. households (roughly 13.8 million households including 5.6 million households with children) experienced food insecurity at some point during 2020.⁴

College students are also affected by food insecurity, at even higher rates than the nation as a whole. According to the National Center for Education Statistics, 22.6% of undergraduate college students and 12.2% of graduate students experienced food insecurity in 2020.⁵⁻⁷ Rates are higher for Hispanic-serving institutions (HSIs); 24.3% of undergraduate students attending HSIs were food insecure in 2020.⁸

Food security is a critical aspect of student well-being on university campuses. This report presents a comprehensive analysis of student food security during the 2022-2023 and 2023-2024 academic years at Montclair State University, designated as a Hunger-Free Campus by the State of New Jersey (NJ) Office of the Secretary of Higher Education (OSHE) in 2021. By exploring the relationship between food security and student attributes, we seek to provide actionable insights and recommendations to enhance the University's food-related policies and services, ultimately contributing to a healthier, more productive campus community.



Background

Basic needs are the fundamental requirements that individuals must meet to maintain their well-being. These include air, water, food, shelter, sleep, warmth, and safety. Meeting these needs is considered essential for a minimum standard of living. A person whose basic needs are not met will likely experience difficulties in achieving psychological and self-fulfillment needs, such as intimate relationships, friendships, self-esteem, and self-actualization.⁹

As a basic need, food security is the “access by all people at all times to enough food for an active, healthy life.”³ Conversely, food insecurity refers to “the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways.”³ Although related, food insecurity is not synonymous with hunger. Hunger is the physical sensation—often uncomfortable or painful—caused by not eating enough food. Food insecurity is an economic, social, and psychological condition of limited access to food,^{10,11} and more recently labeled as a toxic stressor.¹² While hunger can be caused by food insecurity, not all individuals experiencing food insecurity feel hunger.

Household food security is measured annually by the U.S. Department of Agriculture (USDA) using an 18-item food security survey, which asks questions about a household’s behaviors and experiences in meeting food needs. Based on the number of affirmative responses to the survey questions, respondents are classified along a continuum from high food security to very low food security (**Table 1**). Households experiencing high or marginal food security are categorized as food secure, whereas those with low or very low food security as food insecure. **Low food security** is defined as a reduced quality, desirability, or diversity of the diet, but with little or no reduction in food intake. **Very low food security**—the most severe form of food insecurity—is evidenced by reduced food intake and different signals of disrupted eating patterns.³

Table 1. Number of affirmative questions on the USDA 18-item food security survey corresponding to each level of food security

Household Type	Food Security		Food Insecurity	
	High Food Security	Marginal Food Security	Low Food Security	Very Low Food Security
Households with child(ren)	0	1-2	3-7	8-18
Households with no child(ren)	0	1-2	3-5	6-10

Research at individual colleges and universities indicates an association between food insecurity and reporting poor or fair health, being employed, living off campus, having an income of less than \$15,000, demonstrating poorer academic performance, and identifying as non-white.¹³⁻¹⁵

History of Food Insecurity at Montclair State University

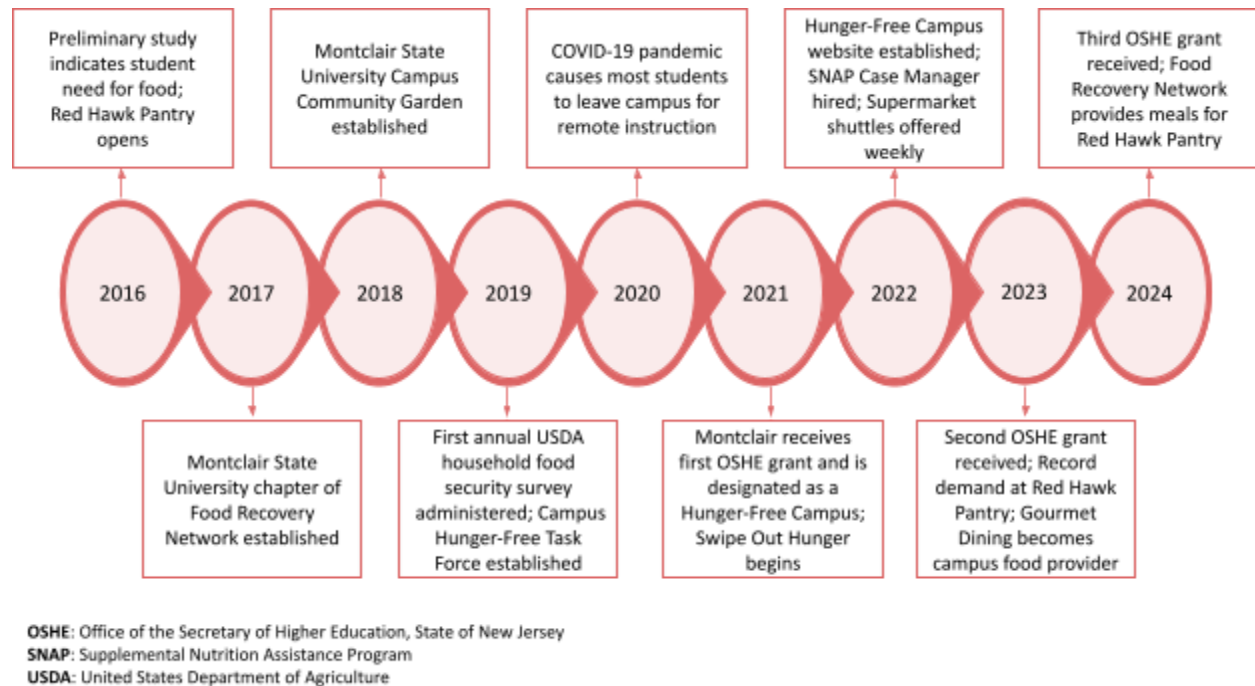


Figure 2. Timeline of food insecurity efforts at Montclair State University

Montclair State University has been actively working to combat food insecurity for the past decade (**Figure 2**). Student food insecurity was first measured in 2016 with a preliminary student-led survey that identified a notable student need for food and other household necessities. As a result, the University established the Red Hawk Pantry the same year, becoming the first four-year institution of higher education in NJ to open an on-campus food pantry. In 2017 and under the guidance of Dr. Lauren Dinour, five students in the Department of Nutrition and Food Studies founded Montclair's chapter of the Food Recovery Network as an effort to reduce food insecurity and food waste on campus. By 2018, the Montclair State University Campus Community Garden was established, led by Mr. Chris Snyder as garden coordinator.

To more comprehensively determine the scope of food insecurity, Dinour and Snyder administered the USDA household food security survey. All enrolled students were invited to participate, and results indicated that 44% of respondents were experiencing food insecurity during the Spring 2019 semester. Later that year, the campus established the Hunger-Free Task Force, composed of representatives from Dining Services, Student Development & Campus Life, Dean of Students Office, faculty, and students.

The COVID-19 pandemic significantly impacted student life during the Spring 2020 semester, leading to the closure of campus and the transition to remote learning for nearly all courses. Only about 500 students remained in campus dormitories at this time, with limited options for dining and food purchasing. Still, annual food insecurity surveys indicated rates of 28% during AY 2019-2020 and 24% in AY 2020-2021 (**Figure 3**).

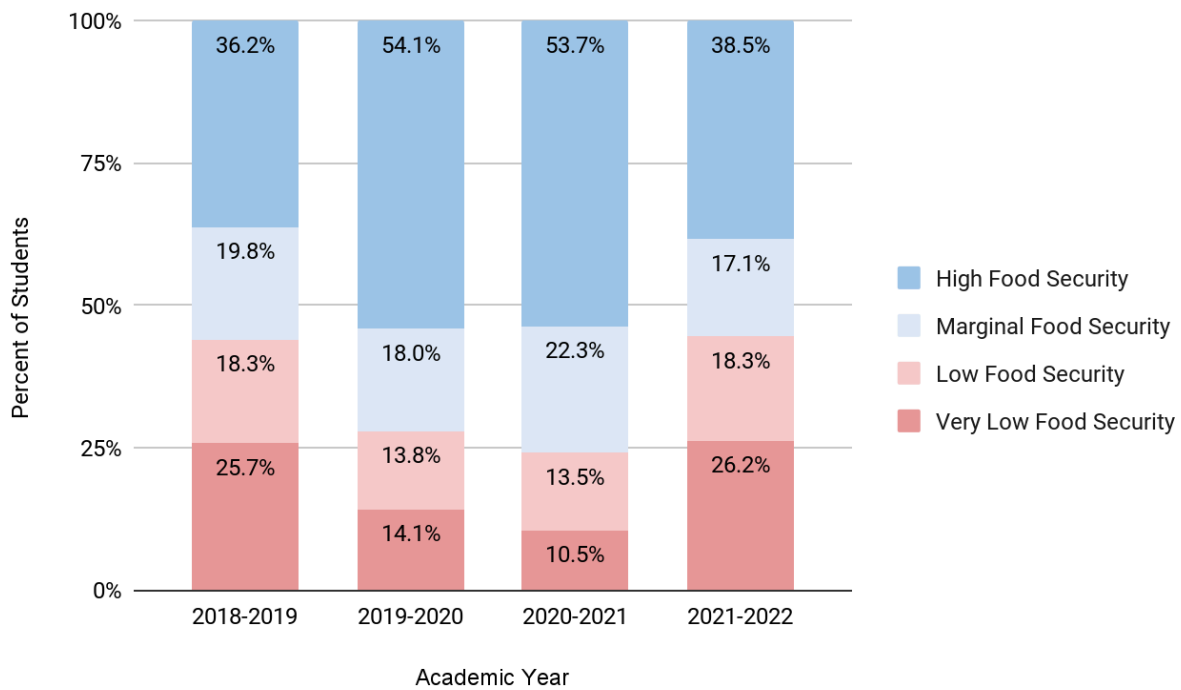


Figure 3. Student food security status over time, AY 2018-2019 through AY 2021-2022

These declines in food insecurity during the early COVID period were likely related to students returning home or living with others, allowing shared foods and costs. Students may have relied more heavily on alternative food sources, such as food pantries and other emergency food providers. Additionally, access to unemployment and other benefits may have increased the amount of money students had for food.

In 2021, Montclair was designated as a Hunger-Free Campus by NJ OSHE and received its first grant from OSHE to expand hunger-fighting efforts. As part of the grant, Swipe Out Hunger was introduced on campus, allowing students enrolled in a dining block meal plan to donate up to two block swipes per semester to support other students struggling with food insecurity. Further efforts rolled out in 2022, such as the establishment of a Hunger-Free Campus website, hiring of a case manager to assist students in applying for NJ's Supplemental Nutrition Assistance Program (NJ SNAP), and provision of weekly shuttles to and from local supermarkets. Still, by AY 2021-2022, student reports of food insecurity rose to 45% (**Figure 3**).

Record numbers of students accessed the Red Hawk Food Pantry in AY 2023-2024. OSHE grants were received for fiscal years 2023 and 2024 to further support campus-based food security programs and provide students with financial incentives to participate in continued food security surveillance. Additionally, Montclair's new campus food provider—Gourmet Dining—partnered with the Food Recovery Network to pilot a food recovery program that provided prepared meals for distribution through the Red Hawk Pantry. The pilot was successful with plans to continue in Fall 2024.

Methodology

1. Sample and Recruitment

Survey invitations sent via email to all enrolled students

Survey recruitment involved sending an email invitation to all enrolled students. **Table 2** lists the number of enrolled students in Fall 2022, Spring 2023, and Spring 2024 along with the number and percentage of students who participated in the survey.

Table 2. Total enrolled students and participants, by semester

Semester	Total Enrolled Students	Total Survey Participants
Fall 2022	21,784 ¹⁶	2,640 (12.1% of enrolled)
Spring 2023	20,448 ¹⁷	2,060 (10.1% of enrolled)
Spring 2024	21,401 ¹⁸	1,280 (5.9% of enrolled)

2. Survey Tool

Anonymous, online, cross-sectional survey

An anonymous, cross-sectional online survey was conducted via Qualtrics to quantify the prevalence and predictors of food insecurity among students. **Table 3** summarizes the survey measures. The complete survey tool can be found in the **Appendix**.

Table 3. Survey measures

Demography	<ul style="list-style-type: none">● Gender identity● Race and ethnicity● First-generation student● Year of study● Grade point average (GPA)● Employment information		<ul style="list-style-type: none">● Part-time or full-time student● Funding sources for college● Receipt of government assistance● Additional financial assistance● Living situation, including living with children <18 years	
	18-item USDA food security measure, which categorizes students based on the number of affirmative responses:			
Food Security	<ul style="list-style-type: none">● High food security● Marginal food security		<ul style="list-style-type: none">● Low food security● Very low food security	
Food Access	<ul style="list-style-type: none">● Food preparation● Food storage● Food purchasing and costs		<ul style="list-style-type: none">● Campus dining● Meal timing and scheduling● Attending events with free food	

Demographic questions included a screener for the presence of children in the household to contextualize food security status. To measure food security, we utilized the USDA's validated 18-item food security measure.¹⁹ Food security questions were framed within a 30-day reference period as recommended by OSHE.²⁰ Questions regarding food access utilized a Likert scale (strongly disagree to strongly agree) and focused on the ease of preparing and storing food at home, the reliance on campus dining services, the purchasing power of individuals in relation to food, and other topics. This study received Institutional Review Board approval from Montclair State University (IRB # FY18-19-1235), and participating students provided informed consent.

3. Data collection

Surveying began on day 30 of each semester; incentives provided

Survey collection commenced 30 days after each semester began and remained open until the last day of classes. On average, the survey took 8 minutes to complete. The first 1200 students to complete the survey received one meal swipe equivalent, valued at \$8.35. Additionally, in Fall 2022 and Spring 2023, all respondents were eligible to enter a raffle for one of four Fitbit watches, valued at up to \$100.



(Montclair State University, 2024, <https://www.montclair.edu/id-card/>)



(Fitbit, 2024, <https://www.fitbit.com/global/us/products/trackers/inspire3?sku=424BKBK>)

4. Data analysis

Descriptive statistics and logistic regressions

Data were analyzed with SPSS (IBM, Version 28.0.1.1, 2015). Descriptive statistics were used to summarize the data and determine differences between food security groups. Logistic regression was used to determine the predictors of food insecurity.

Based on the *USDA Guide to Measuring Household Food Security*,¹⁹ two methods were used to account for incomplete data. The observed method analyzes data based on reported responses and assumes missing values are negative. The imputed method assigns responses for missing items based on answers provided by the same household to other scale items. After imputation, households are scored using the same methods as those with complete responses, ensuring consistency in the evaluation of food security levels.¹⁹ Here, we report the observed data to provide a more conservative analysis and allow for comparison with previous survey iterations. Data based on the imputed method are available in the **Appendix**. Although numbers differ, findings show similar patterns. Actual food insecurity rates likely lie in between the two sets of data.

Results

Description of the Study Sample

Generally, most participants were between 18-23 years old and identified as female, white or Latino/a/x race, non-Hispanic ethnicity, single, and without dependent children. Students most often resided on campus or at home with a parent or guardian. About half of participants were employed at the time of the survey, and of those who were employed, 41% worked at least 20 hours per week. Only about one-third of students indicated that their parents paid for their college tuition, and a similar amount reported receiving any kind of social service assistance in the previous 12 months, such as food, housing, transportation, childcare, or medical assistance programs. When participants were in high school, between 34%-45% received free or reduced price lunch.

Just under half of participants were first generation college students (i.e., neither parent earned a college degree from a 4-year institution), and about two-thirds had been in school for more than a year. Most students reported that their grade point average (GPA) was at least 3.0 on a 4.0 scale (equivalent to a B average). Additionally, one of every four to five participants indicated that they did not have enough time to eat before class. **Table 4** presents the demographic characteristics of survey participants by semester.

Table 4. Study participant characteristics, by semester

Variable		Fall 2022 (N=2640) % (n)	Spring 2023 (N=2060) % (n)	Spring 2024 (N=1280) % (n)
Age	18-19 years	45.4 (1199)	20.6 (424)	16.6 (213)
	20-23 years	39.8 (1051)	61.0 (1256)	58.0 (743)
	24-27 years	5.9 (156)	8.0 (165)	10.0 (128)
	28 years or older	4.2 (110)	4.0 (83)	7.7 (99)
Gender	Female	63.3 (1671)	58.8 (1212)	64.1 (820)
	Male	30.2 (798)	32.2 (663)	26.5 (339)
	Genderqueer	4.4 (115)	5.1 (106)	5.2 (66)
Race	White or Caucasian	39.8 (1050)	40.1 (826)	35.0 (448)
	Black or African American	17.7 (468)	16.2 (333)	16.2 (207)
	Latino/a/x	22.7 (600)	21.7 (446)	21.3 (272)
	Asian or Pacific Islander	9.1 (239)	9.2 (190)	14.1 (180)
	Multiracial	4.3 (113)	4.0 (83)	4.3 (55)
	Other	3.0 (78)	3.3 (67)	3.6 (46)
Ethnicity	Hispanic	31.3 (826)	31.0 (638)	31.5 (403)
	Non-Hispanic	65.2 (1721)	63.3 (1305)	62.7 (803)
Relationship Status	Single	62.0 (1637)	58.6 (1207)	57.1 (731)
	In a relationship	32.0 (846)	33.3 (687)	33.4 (427)
	Married or domestic partnership	2.3 (62)	2.2 (46)	3.4 (44)
	Divorced or widowed	0.2 (5)	0.3 (7)	0.2 (3)

Variable		Fall 2022 (N=2640) % (n)	Spring 2023 (N=2060) % (n)	Spring 2024 (N=1280) % (n)
Has Dependent Children	Yes	1.6 (41)	1.2 (24)	1.5 (19)
	No	82.3 (2173)	77.3 (1593)	78.0 (999)
Place of Residence	University housing	41.9 (1105)	44.5 (917)	36.9 (473)
	Home with parent/guardian	38.6 (1018)	33.2 (683)	37.2 (476)
	Off-campus	8.6 (227)	8.5 (176)	12.9 (165)
	With friends	0.7 (18)	0.6 (13)	0.8 (10)
	Houseless	0.1 (3)	0.0 (0)	0.0 (0)
Employment Status	Yes currently employed [Works 20+ hours/week]	49.2 (1300) [20.2 (533)]	49.3 (1016) [20.2 (417)]	51.5 (659) [21.4 (274)]
	No, I am unemployed	41.1 (1085)	38.6 (796)	36.8 (471)
Parent Pays for College	Yes	31.8 (839)	31.7 (653)	28.9 (370)
	No	67.0 (1770)	67.3 (1386)	69.8 (894)
Receives Any Social Assistance	Yes	33.7 (890)	31.6 (650)	36.4 (466)
	No	54.5 (1438)	53.8 (1109)	51.0 (653)
Received Free/Reduced Lunch	Yes	44.5 (1176)	41.9 (863)	34.0 (435)
	No	52.0 (1374)	52.7 (1086)	49.8 (638)
First Generation College Student	Yes	45.2 (1192)	43.8 (903)	47.5 (608)
	No	49.5 (1308)	48.7 (1004)	45.2 (578)
First Year College Student	Yes	32.9 (868)	29.5 (608)	23.8 (304)
	No	62.4 (1647)	63.6 (1310)	69.0 (883)
Current GPA is at Least 3.0	Yes	60.9 (1607)	69.7 (1435)	73.6 (942)
	No	34.4 (907)	23.3 (479)	19.1 (244)
Not Enough Time to Eat Before Class	Yes	20.0 (528)	24.4 (502)	18.8 (241)
	No	61.2 (1616)	52.5 (1081)	60.2 (771)

Note: Percentages are based on the total N for the semester and do not add up to 100% due to missing data.

Prevalence and Trends of Food Security

On average, only 52% of Montclair students who responded to the survey during Fall 2022, Spring 2023, and Spring 2024 were food secure in the 30 days prior to taking the survey (**Table 5**). Conversely, food insecurity affected just under half (48%) of students, with rates fluctuating between a low of 44% in Fall 2022 to a high of 52% the following semester, Spring 2023. Of most concern, more than one-in-four students (28%) experienced very low food security, the most severe form of food insecurity that includes reduced food intake and disrupted eating patterns because of limited money and other resources for food. Such rates far exceed averages for U.S. households during the same time (12.8% food insecurity, 5.1% very low food security in 2022).²¹ Additionally, these rates meet or exceed prior levels at Montclair State University (**Figure 2**), suggesting that reported food insecurity may be increasing over time.

Table 5. Food security levels in the past 30 days among survey participants, by semester and overall

Semester	High Food Security	Marginal Food Security	Total Food Secure	Low Food Security	Very Low Food Security	Total Food Insecure
Fall 2022 (n=2254)	36.5% (823)	19.1% (431)	55.6% (1254)	18.5% (416)	25.9% (584)	44.4% (1000)
Spring 2023 (n=1649)	30.7% (507)	17.1% (282)	47.8% (789)	22.0% (363)	30.1% (497)	52.2% (860)
Spring 2024 (n=1062)	30.1% (320)	20.5% (218)	50.7% (538)	20.4% (217)	28.9% (307)	49.3% (524)
Overall (n=4965)	33.2% (1650)	18.8% (931)	52.0% (2581)	20.1% (996)	28.0% (1388)	48.0% (2384)

Who Is Most At Risk of Food Insecurity at Montclair State University?

Logistic regression was used to determine which students are most at risk of food insecurity and very low food security. Although there were differences across semesters, several predictors remained consistent from Fall 2022, Spring 2023, and Spring 2024. Of note, students identifying as genderqueer, Black or African American, first generation college student, and not having enough time to eat before class were significantly more likely to be food insecure and experience very low food security compared to their peers. In several cases, the odds of experiencing food insecurity and/or very low food security were double or more (indicated by an odds ratio (OR) ≥ 2.0 and highlighted in the darker green shading in **Table 6**).

Conversely, students who lived at home with a parent or guardian had a 42%-64% lower odds of being food insecure during the three semesters, and 39%-50% lower odds of experiencing very low food security in Spring 2023 or Spring 2024, compared to their peers who did not live at home. Other protective factors of food insecurity and/or very low food security include having dependent children, having a parent pay for college, being a first year college student, and having a GPA of at least 3.0. In a few instances, the odds of experiencing food insecurity and/or very low food security were half or less (indicated by an OR ≤ 0.5 and highlighted in the darker orange shading).

Montclair students **most at risk for food insecurity** and at **highest risk for very low food security** identify as:

- Genderqueer
- Black or African American
- Multiracial
- Received free/ reduced price lunch in high school
- First generation college student
- Not having enough time to eat before class

Table 6. Predictors of student food insecurity (i.e., low + very low food security) and very low food security in the past 30 days, by semester

Respondent Characteristic	Fall 2022 (n=1861)		Spring 2023 (n=1312)		Spring 2024 (n=846)	
	Low + Very Low Food Security	Very Low Food Security	Low + Very Low Food Security	Very Low Food Security	Low + Very Low Food Security	Very Low Food Security
Under 24 years	1.012	1.155	0.992	1.117	0.842	0.786
Woman	1.313*	1.207	1.370*	1.692***	1.002	0.945
Genderqueer	1.798*	2.265**	2.013**	2.335**	4.524***	2.807**
Black or African American	1.859***	1.734**	1.629**	1.465*	2.277**	2.088**
Latino/a/x	1.266	1.493*	1.408*	1.493*	1.482	1.402
Asian or Pacific Islander	1.417	1.232	1.273	0.823	1.665*	1.401
Multiracial	1.393	1.642	1.331	1.366	2.132*	2.088*
Other race	0.837	0.888	0.997	1.161	0.994	1.684
In a relationship	1.125	1.295*	1.566***	1.515**	0.994	1.090
Has dependent children	0.317**	0.406	0.265*	0.303	0.502	0.275
Lives at home with parent/guardian	0.576***	0.792	0.577***	0.612***	0.364***	0.500***
Currently employed	1.092	0.961	0.894	0.880	1.394	0.706
Currently working 20+ hours/week	1.238	1.280	1.178	1.107	0.782	1.166
Parent pays for college	0.637***	0.744*	0.767*	0.697*	0.830	0.844
Receives any social service assistance	1.206***	1.182***	1.123*	1.049	1.106	1.014
Received free/reduced price lunch	1.670***	1.537**	1.355*	1.270	1.234	1.650*
First generation college student	1.530***	1.504**	1.648***	1.364*	2.097***	1.770**
First year college student	0.579***	0.680**	0.647**	0.578***	1.125	1.039
Current GPA is at least 3.0	0.869	0.974	0.816	0.780	0.643*	0.706
Not enough time to eat before class	1.982***	2.068***	1.950***	1.776***	2.230***	1.755**
Nagelkerke R Square	0.191	0.146	0.151	0.130	0.215	0.151

*p<0.05, **p<0.01, ***p<0.001

Note: Numbers indicate odds ratios (OR). Reference category for gender is 'Man' and for race is 'White.' Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Discussion

Food security is essential for a healthy and active life, and is defined by access to safe, sufficient, and nutritious food that meets individuals' dietary needs. This comprehensive analysis reviews the state of food security among students at Montclair State University, with a specific focus on the academic years of 2022-2023 and 2023-2024. Understanding the prevalence and risk factors for food insecurity is crucial, especially in the context of higher education settings where food insecurity rates exceed national averages.

Food insecurity at Montclair State University remains a significant challenge. Surveys conducted in Fall 2022, Spring 2023, and Spring 2024 reveal that food insecurity affects 48% of participating students. Even more concerning is that 28% of survey participants experienced very low food security. These rates are notably higher than the national averages in 2022, with 12.8% of U.S. households considered food insecure and 5.1% experiencing very low food security. Likewise, comparisons to prior surveys at Montclair suggest that reported food insecurity may be increasing over time. These findings underscore the continued need for communicating and enhancing existing support systems on campus.

The analysis also demonstrates a significant relationship between food insecurity and various socioeconomic factors. Notably, food insecurity is most prevalent among students identifying as genderqueer, Black or African-American, multi-racial, having received free or reduced price lunch in high school, first-generation college students, and not having enough time to eat before class. Targeted interventions should be geared towards these students, who may be experiencing several basic needs insecurities—food, housing, income, etc.—simultaneously.

It is important to note that although all students were invited to participate in the survey, only between 6%-12% participated each semester. Thus, the findings described in this report may not be representative of all Montclair students. In other words, the actual food insecurity rate across all Montclair students may be higher or lower. This factor should be considered when evaluating the extent of food insecurity and trends over time. Nevertheless, across the three semesters, there were nearly 2400 reports of food insecurity. For these students, the effects of food insecurity may include unhealthy eating habits, poor overall health, difficulty concentrating, depression, anxiety, disordered eating, and stress.²²⁻²⁵

At Montclair State University, various offices and groups have initiated efforts to address food insecurity. These are described in more detail in the next section. There is also much to learn from other colleges and universities across the U.S., many of whom have developed creative and effective strategies that are reproducible on other campuses. A selection of these innovations, along with recommendations from other campus food security reports, are also highlighted below. The continued high incidence of food insecurity among Montclair students calls for a comprehensive and integrated approach to ensure all students have access to the necessary resources for a healthy and productive academic and personal life.

Campus Resources

Montclair State University has implemented various initiatives to combat food insecurity among its students, as well as to normalize and destigmatize food assistance. These efforts are described below.

The [Hunger Free Campus Task Force](#) is a collaborative university effort to address student hunger through innovative solutions, including the introduction of affordable dining options, an enhanced food pantry, and the establishment of the Montclair State Campus Community Garden. The task force was established in 2019 and comprises university administrators, faculty, staff, students, and representatives from Montclair's food service provider. Members convene at least three times per academic year to pursue goals such as acting as a community outreach hub, developing educational programs on food security, and creating a communication plan to raise public awareness and gather resources on hunger-related issues.

Hunger Free Campus Task Force



The [Red Hawk Pantry](#) at Montclair State University was established in 2016 by Student Development and Campus Life to address food insecurity within its community. The pantry aims to become self-sustaining, extending its service hours, and expanding its offerings to include food items, health and personal care products, school supplies, and tableware/utensils for students, faculty, and staff in need. Donations of goods are greatly appreciated and can be made in person at the pantry (Blanton Hall Room 1200) or online through an Amazon Wish List, ensuring that community members have access to essential items. Financial gifts are also accepted online at <https://crowdfund.montclair.edu/project/10549>

Red Hawk Pantry



The [Food Champion Program](#) alerts participants of surplus food from catered meetings and events on campus. This innovative program aims to reduce food insecurity and minimize food waste. Registration is free and simple through the Canvas learning management software. Once enrolled, students receive push notifications through Canvas about the time, location, and types of food available (even over the summer!). Food is available for a limited time on a first-come, first-served basis. Students can self-register at <https://montclair.instructure.com/enroll/FX3DYP>

Food Champion Program



Food Recovery Network



The [Food Recovery Network](#) is a national organization of student-run campus chapters with dual missions of reducing hunger and fighting against climate change. Each week during the semester, surplus hot and prepared foods from Montclair's dining halls are recovered, portioned, packaged, and provided to the Red Hawk Pantry for distribution. Founded in 2017, Montclair State University's Food Recovery Network chapter has recovered over 16,000 pounds of food to date that has been donated to local hunger-fighting organizations.

Swipe Out Hunger



[Swipe Out Hunger](#) is a national initiative that aims to combat student hunger and food insecurity. At Montclair State University, this program operates through partnerships with Montclair State Dining, Student Development and Campus Life, and the Office of the Dean of Students. The program enables students with block meal plans to donate up to two meal swipes each semester to aid peers facing food challenges. To facilitate this, Montclair organizes two donation drives annually, one per semester.

New Jersey Supplemental Nutrition Assistance Program Enrollment Support



The [New Jersey Supplemental Nutrition Assistance Program \(NJ SNAP\)](#) offers financial support to low-income households, enabling them to purchase groceries with a benefits card accepted at numerous food retailers and select farmers' markets. SNAP helps recipients extend their food budget to afford healthy and nutritious meals for themselves and their families. Students between 18-49 years old who are enrolled at least half-time in college may be eligible for SNAP, so long as other criteria are met. A screening tool is available to determine eligibility at <https://www.njhelps.gov>. Students can also contact Arian Craig, Student Support Services Case Manager (craig@montclair.edu), for assistance with SNAP enrollment.

Supermarket Shuttle



Montclair State University offers a free [Supermarket Shuttle Service](#) on Wednesdays from 12pm-4pm. This transportation between Red Hawk Deck and ShopRite Little Falls ensures students can use their SNAP benefits to purchase groceries, addressing the limitation of not being able to utilize these benefits on campus. Another shuttle is offered on Saturdays from 11am-11pm between Red Hawk Deck, Target, and Stop & Shop in Clifton. Schedules for both shuttles can be found at <https://www.montclair.edu/facilities/our-services/shuttle-services/off-campus-shuttle-service/>

Across campus, residence halls have [Community Kitchens](#) where students can prepare meals, fostering a sense of community. Community Kitchens contribute to students' well-being and academic success by ensuring that students do not have to skip a meal due to a lack of access to cooking facilities. Students who do not have a kitchen in their dorm can use the Community Kitchen at Blanton Hall.

Community Kitchens



The [Teaching Kitchen](#) initiative is a program focused on enhancing culinary abilities and understanding of nutrition. It features interactive cooking sessions, workshops, and live food demonstrations conducted by expert chefs and the Campus Registered Dietitians. The objective is to equip individuals with the knowledge and practical skills required for making better food selections and boosting their confidence in preparing meals. Students can participate in these workshops at Freeman Hall by signing up on the [Engage](#) website.

Teaching Kitchen @ Freeman



The [Campus Registered Dietitians](#) offer a variety of support options to enhance the well-being of students and employees. Services include dietary guidance, no-cost individual and group nutritional counseling, dining location tours, nutrition workshops, and more. For anyone managing food allergies, sensitivities, or dietary preferences, the Campus Dietitians can assist in creating tailored meal plans, highlighting dining locations, and answering questions to resolve culinary uncertainties.

Campus Registered Dietitians



The [Montclair State University Community Garden](#) (MSUCG) was established in 2018 and aims to promote sustainable agriculture and community engagement. This initiative revitalized unused campus spaces, creating 20 raised garden beds for sustainable cultivation and educational opportunities. The garden supports the Red Hawk Pantry by donating fresh produce to help students facing food insecurity, while also extending its outreach beyond the growing season to raise awareness about food needs on campus. Additionally, the garden collaborates with Montclair Community Farm, a local community partner, to provide fresh produce to the elderly.

Montclair State University Community Garden



Additional On-Campus Resources (Non-Food)

Rocky's Closet



As a sister program to the Red Hawk Pantry, [Rocky's Closet](#) offers new and gently used professional clothing, shoes, and accessories to assist students in need of business attire. All donated clothes are dry-cleaned so that they are ready to wear. Available items range from blazers and professional blouses to dress shoes and ties, catering to the diverse needs of Montclair State University's students, staff, and faculty. Gender-inclusive and casual options, as well as monetary donations, are accepted. To access or donate to Rocky's Closet, interested parties can email RockysCloset@montclair.edu to schedule appointments.

Office of the Dean of Students



The [Office of the Dean of Students](#) offers various support services to students, including assistance to independent/emancipated/homeless students, book scholarships, interest-free emergency loans, lactation rooms and pregnancy support, medical withdrawals, and on-campus shuttle services for Persons with Disabilities. Additionally, the Office of the Dean of Students can connect students to community and governmental resources, such as affordable and accessible housing, domestic violence services, energy assistance, financial resources, low- or no-cost health insurance, and more.

Off-Campus Resources



Programs to bolster food security are available off-campus, including:

- [Community FoodBank of New Jersey \(CFBNJ\)](#), which offers a directory of food pantries, soup kitchens, and shelters in 11 NJ counties.
- [Feeding America](#), which provides a directory of local food banks throughout the country, searchable by zip code.
- [New Jersey Department of Agriculture \(NJDA\)](#), which administers various food distribution and child nutrition programs such as the National School Lunch Program, School Breakfast Program, and Summer Food Service Program for school-aged children.
- [New Jersey Department of Health \(NJDOH\)](#), which oversees the Supplemental Nutrition Program for Women, Infants, and Children (WIC). WIC offers nutritious foods, nutrition counseling, and health referrals to financially eligible women during pregnancy and postpartum periods, as well as to infants and children up to age five.
- [New Jersey Department of Human Services \(NJ DHS\)](#), which manages NJ SNAP (see page 13 for more information).
- [U.S. Department of Agriculture](#), which maintains several food directories to find local foods within a community (e.g., community-supported agriculture, farmers markets, food hubs).

Recommendations to Further Enhance Food Security

Despite the resources currently dedicated to supporting Montclair State University students, food insecurity remains a reality for many. Peer institutions across the country are experiencing similarly high rates of student food insecurity and have developed and implemented even more programs and policies to address this issue. **Figure 4** summarizes eight recommendations made by universities and hunger-fighting organizations that can be adopted by Montclair State University. Additional innovative and noteworthy student food security promotion strategies are further described on pages 17 and 18.

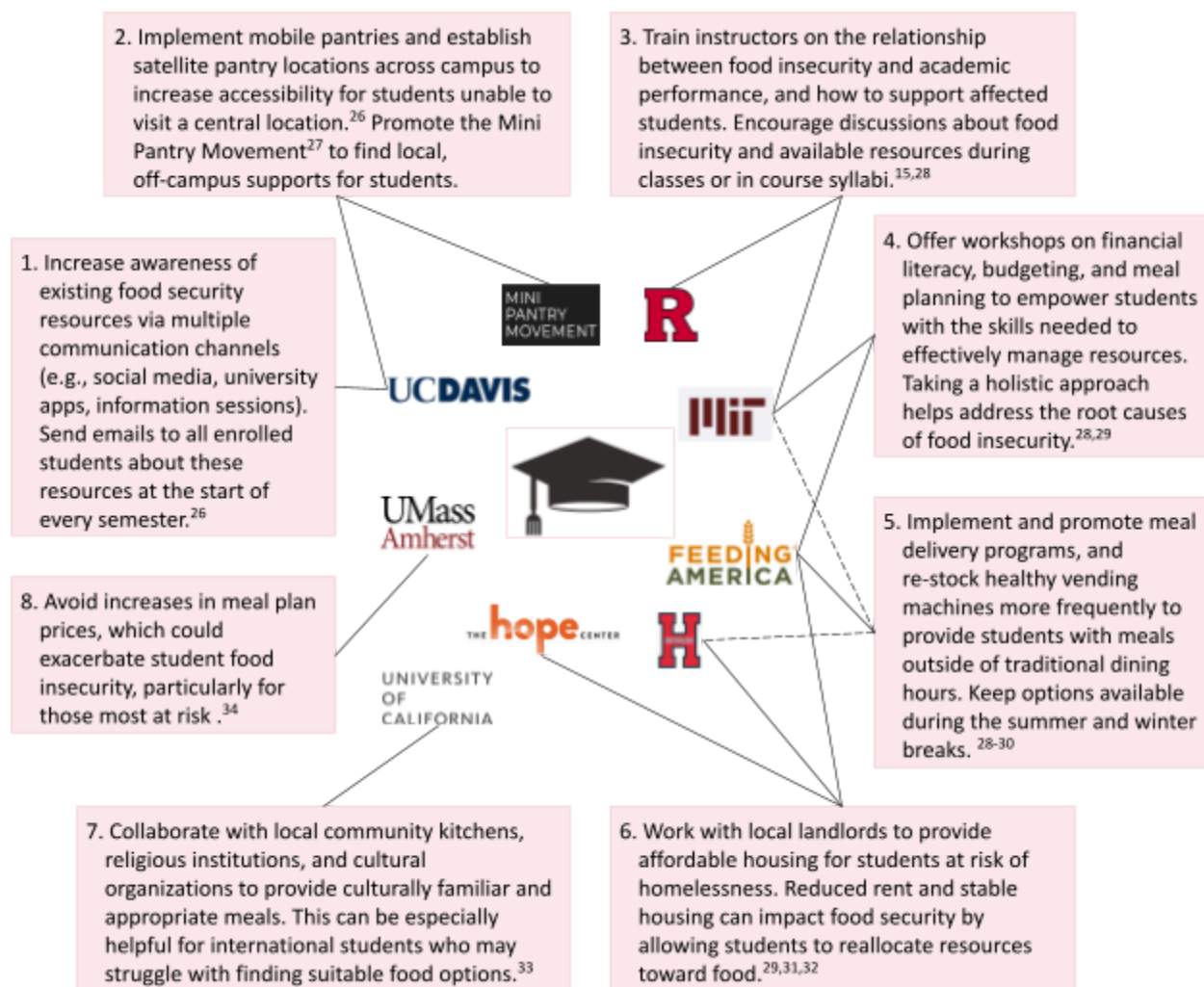


Figure 4. Eight recommendations drawn from other universities and hunger-fighting organizations to further enhance food security at Montclair State University

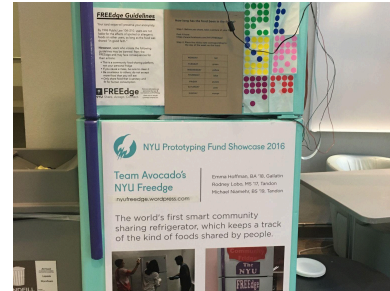
Innovative Food Security Initiatives At Other College Campuses



Refrigerated Smart Pantry

Hunter College, City University of New York

- Refrigerated vending machine stocked with fresh fruits and vegetables, sandwiches, soups, salads, etc.
 - Students scan a QR code for access
 - Smart Pantry app monitors data on the time, place, and items received
- <https://hunter.cuny.edu/news/hunter-food-policy-center-and-share-meals-debut-smart-pantry-at-silberman/>



FREEdge

New York University

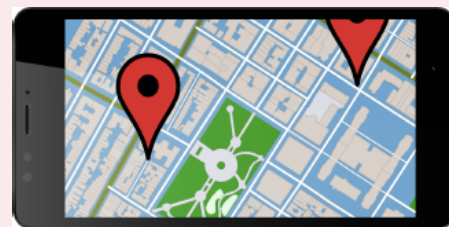
- Community refrigerator that allows sharing and taking of leftovers and extra food
 - Those that share food put a color-coded sticker on the container to indicate the day of the week the food was added (e.g., Monday = Red, Tuesday = Green, etc.)
 - Technology added to keep track of the kinds of foods shared and number of users
- <https://nyufreeedge.wordpress.com/>



Winter Break Bridge Meal Program

Massachusetts Institute of Technology

- Meal vouchers can be used at various off-campus vendors during winter break
 - Vending machines on campus remain accessible and restocked
 - TechCASH can be used at multiple local food businesses
 - Shuttles are available to Costco, Target, Trader Joe's, Whole Foods Market, and other food retailers
- <https://doingwell.mit.edu/winterresources/>



Share Meals

New York University

- Students can share extra meal swipes or post leftover food from events on a free digital platform
 - The app only allows students to interact with others from the same institution once they create an account using their university email address
 - Everything is posted on the app in real time and is based on one's current location
- <https://sharemeals.org/>



Little Free Pantry Luther College

- Three-foot shelf containing non-perishable food and snacks to take when needed
 - Pantry is restocked weekly with donated items
 - Accessible 24/7 by campus community members
- <https://www.lutherchips.com/9741/features/little-free-pantry-provides-free-food-for-the-luther-community/#>



JBJ Soul Kitchen Community Restaurant Rutgers University | Newark

- On-campus restaurant that provides healthy, chef-created, three-course meals
 - Anyone can dine and pay it forward with a minimum donation or meal plan swipe
 - Students can also volunteer their time in the restaurant or other campus dining locations to cover the cost of their meal
- <https://dineoncampus.com/rutgersnewark/jbj-soul-kitchen>



Food Pantry Cooking Classes Butler University

- In partnership with the campus dining services company, the campus food pantry offers cooking classes and food demonstrations highlighting pantry-friendly recipes
- <https://www.butler.edu/student-life/volunteer/butler-food-pantry/>



MacShare Macalester College

- Student-run food co-op that brings fresh, local food to students on campus each week at an affordable price
 - Works with local partners to purchase produce and bulk goods at wholesale prices and sell to students at cost
 - Campus catering company buys all leftover food for zero waste
- <https://www.macalester.edu/news/2023/07/macshare-brings-food-justice-to-campus>

Conclusion

The findings of this report indicate that during Fall 2022, Spring 2023, and Spring 2024, food insecurity was a persistent and critical issue for students at Montclair State University. Despite ongoing efforts and initiatives aimed at alleviating this challenge, nearly half of the surveyed students reported experiencing food insecurity, with a significant portion facing very low food security. This situation mirrors and exceeds national averages, highlighting the urgency of addressing campus food insecurity more comprehensively.

The analysis has shown that food insecurity disproportionately affects students identifying as genderqueer, Black or African American, first-generation college students, and those with limited time to eat before class. These findings suggest that targeted interventions and support mechanisms are essential to address the multifaceted nature of food insecurity and its impact on student well-being, academic performance, and overall quality of life.

As Montclair State University continues to strive toward creating a hunger-free campus, the recommendations provided in this report, along with the innovative strategies observed at other institutions, offer a roadmap for enhancing food security efforts. By fostering a comprehensive and inclusive approach, the university can ensure that all students have consistent access to the resources necessary for a healthy and successful academic journey.



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Figure A1. Montclair State University Survey Tool, Spring 2024

You are invited to participate in a study of food security at Montclair State University. We hope to learn about students' experiences with food on campus, in order to guide the development of services at Montclair State University.

If you decide to participate, please complete the following set of questions. The survey is designed to help us learn about student experiences with food. It will take about 15 minutes to complete. You will be asked to answer questions about the food you eat, and the food available on campus. You may not directly benefit from this research. However, we hope this research will result in identifying the needs and concerns of students who are in need of food assistance.

Any discomfort or inconvenience to you may include talking about experiences with hunger. Data will be collected using the Internet. There are no guarantees on the security of data sent on the Internet. Confidentiality will be kept to the degree permitted by the technology used. Any responses that you provide will be kept anonymous, and will be reported in aggregate. No identifiable information will be shared with anyone outside of our research team. If you decide to participate, you are free to stop at any time. You may skip questions you do not want to answer.

The first 1,500 students to take the survey will receive \$8.35 Flex Dollars, to spend on campus. At the end of the survey, you will be redirected to a separate form where you will be asked for your CWID and MSU Email Address to distribute the Flex Dollars. This information is **not connected** to any answers that you provide in the survey below.

Please feel free to ask questions regarding this study. You may contact us if you have additional questions at: Dr. Lauren Dinour, Associate Professor in Nutrition & Food Studies: dinourl@montclair.edu. Any questions about your rights as a research participant may be directed to Dr. Dana Levitt, Chair of the Institutional Review Board at Montclair State University at: reviewboard@mail.montclair.edu or 973-655-2097. This study has been approved by the Montclair State University Institutional Review Board, MSU IRB # FY18-19-1235.

Thank you for your time.

Sincerely,
Dr. Lauren Dinour

★ By clicking the link below, I confirm that I have read this form and will participate in the project described. Its general purposes, the particulars of involvement, and possible risks and inconveniences have been explained to my satisfaction. I understand that I can discontinue participation at any time. My consent also indicates that I am over 18 years of age.

- ☐ Yes, I consent and would like to participate in this survey.
- ☐ No, I do not consent, and would not like to participate in this survey.

★ May we use your responses in future studies?

- ☐ Yes, I give permission to the research team to use my responses in future studies.
- ☐ No, I do not give permission to the research team to use my responses in future studies.

The following questions will ask for some information about you.

1. What year were you born? _____
2. What is your gender identity / identities? Please select all that apply.
 - ☐ Man
 - ☐ Woman
 - ☐ Gender Queer/Gender Variant
 - ☐ Transgender
 - ☐ Non Binary
 - ☐ Other _____
3. How do you describe your race?
 - ☐ White or Caucasian
 - ☐ Black or African American
 - ☐ Latino/a/x
 - ☐ Asian or Pacific Islander
 - ☐ American Indian, Alaskan Native, or Native American
 - ☐ Biracial or Multiracial
 - ☐ Other _____
4. Are you Hispanic or Latino?
 - ☐ Yes
 - ☐ No
5. How would you describe your current relationship status?
 - ☐ Single
 - ☐ In a relationship
 - ☐ Married or domestic partnership
 - ☐ Divorced
 - ☐ Widowed
6. Have you ever served in the U.S. Armed Forces, Military Reserves, or National Guard?
 - ☐ Yes
 - ☐ No
7. Did you receive free or reduced price lunch in high school?
 - ☐ Yes, I received free lunch
 - ☐ Yes, I received reduced price lunch
 - ☐ No, I did not receive free or reduced price lunch

The following questions will ask some information about you as a university student.

8. Are you a first-generation college student? *As a reminder, you would be a first-generation college student if neither of your parents have a college degree from a 4-year institution.*

- ☐ Yes, I am a first-generation college student
- ☐ No, I am not a first-generation college student

9. What is your year in school?

- ☐ 1st year undergraduate
- ☐ 2nd year undergraduate
- ☐ 3rd year undergraduate
- ☐ 4th year undergraduate
- ☐ 5th year or more undergraduate
- ☐ Graduate or Professional
- ☐ Not seeking a degree
- ☐ Other, please specify _____

10. What is your major? _____

11. What is your current GPA?

- ☐ Between 3.500 and 4.000
- ☐ Between 3.000 and 3.499
- ☐ Between 2.500 and 2.999
- ☐ Between 2.000 and 2.499
- ☐ Below 2.000
- ☐ I do not know my current GPA

12. Are you currently a full-time or part-time student? *As a reminder: full time status is 12 or more credits per semester for undergraduate students, and 9 or more credits per semester for graduate students.*

- ☐ Full-time Student
- ☐ Part-time Student

The following questions will ask some information about your current employment status.

13. Are you currently employed?

- ☐ Yes, I am employed
- ☐ No, I am unemployed (*skip to question 16*)

14. Are you currently working at your place of employment, or remotely?

- ☐ I currently work on-site, or at my place of employment
- ☐ I currently work remotely, or at my home

15. How many hours are you currently working each week? *If you are employed at multiple jobs, please use the total number of hours that you work each week.*

- ☐ 1-4 hours
- ☐ 5-9 hours
- ☐ 10-14 hours
- ☐ 15-19 hours
- ☐ 20-24 hours
- ☐ 25-29 hours
- ☐ 30-34 hours
- ☐ 35-39 hours
- ☐ 40 hours or more

16. How do you currently pay for the expenses associated with attending college? *Expenses can include tuition, fees, textbooks, school supplies, living expenses, or food. Please check all that apply.*

- ☐ I have a Federal Grant(s) or Scholarship(s)
- ☐ I have Federal Student Loan(s)
- ☐ I have a State Grant(s) or Scholarship(s)
- ☐ I have an Institutional Grant(s) or Scholarship(s)
- ☐ I have an Outside Grant(s) or Scholarship(s)
- ☐ I have a HESAA Loan(s) (aka NJCLASS)
- ☐ I have an Outside Private Loan(s)
- ☐ I use my own Money
- ☐ I use my own Credit Card(s)
- ☐ I use my parent's Money
- ☐ I use my parent's Credit Card(s)
- ☐ I have Employer Tuition Remission
- ☐ Other, please specify _____

17. During the last 12 months, have you received support from any of the following programs? *Please check all programs that you have received support from.*

	I received assistance from this program for myself	I received assistance from this program for myself and other members of my household	I did not receive assistance from this program
SNAP (food stamps)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WIC (nutritional assistance for pregnant women and children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TANF (public cash assistance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SSI (supplemental security income)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SSDI (supplemental security disability income)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medicaid (NJFamilyCare or public health insurance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Child Care Assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	I received assistance from this program for myself	I received assistance from this program for myself and other members of my household	I did not receive assistance from this program
Unemployment compensation / insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility assistance (e.g., assistance paying for heat or water)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation assistance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tax refunds (including EITC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Veterans Administration benefits (including serviceman's, widow's, or survivor's pension, service disability, or the GI Bill)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The following questions will ask some information about where you are currently living.

18. Where do you currently live?

- ☐ Campus residence hall
- ☐ Other university housing
- ☐ Parent's / Guardian's home
- ☐ Other off-campus housing
- ☐ With a friend/s until I find other housing
- ☐ Houseless
- ☐ Other, please specify _____

19. Are you currently living with other people?

- ☐ Yes, I live with other people
- ☐ No, I do not live with other people (*skip to question 21*)

20. Who are you currently living with? *Please check all that apply.*

- ☐ Roommate(s) or friend(s)
- ☐ Parent(s) or guardian(s)
- ☐ Sibling(s)
- ☐ Your own child(ren), or dependent child(ren)
- ☐ Another person's child(ren)
- ☐ Spouse, significant other, or partner
- ☐ Extended family (e.g., a grandparent or cousin)
- ☐ Other, please specify _____

The following questions will ask about the **previous 30 days**.

21. Which of the following places have your meals come from during the **previous 30 days**? *Please check all that apply.*

- ☐ In Person Visit to Supermarket or Grocery Store
- ☐ In Person Visit to Convenience or Corner Store
- ☐ In Person Visit to Big Box Store (i.e., Wal Mart, Target, etc.)
- ☐ In Person Visit to Membership-Only Big Box Store (i.e., Costco, BJ's, etc.)
- ☐ In Person Visit to Specialty Food Store (i.e., fishmonger, butcher, bakery, etc.)
- ☐ Online Delivery from a Supermarket, Convenience Store, Grocery Store, Big Box Store, or Specialty Food Store
- ☐ Take-out or Delivery from a Restaurant
- ☐ Soup Kitchen
- ☐ Food Pantry
- ☐ MSU Dining Services, or On-Campus Store
- ☐ Personal or Community Garden
- ☐ Meal Kit Delivery Subscription Service
- ☐ Food from your Household Pantry
- ☐ Friends, Family, Relatives, or Neighbors
- ☐ Other, please specify _____

22. Which of these statements best describes the food that you ate during the **previous 30 days**?

- ☐ Enough of the kinds of food I want to eat
- ☐ Enough but not always the kinds of food I want to eat
- ☐ Sometimes not enough to eat
- ☐ Often not enough to eat
- ☐ I prefer not to say

For the following statements, please indicate whether the statement was often true, sometimes true, or never true for you during the **previous 30 days**.

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

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

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

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

25. "I couldn't afford to eat balanced meals."

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

The following questions will be about the previous 30 days.

26. During the **previous 30 days**, did you ever cut the size of your meals or skip meals because you didn't have enough money, or meal swipes, for food?

- ☐ Yes
- ☐ No (*skip to question 28*)
- ☐ I don't know (*skip to question 28*)

27. How often did this happen in the **previous 30 days**? (*enter 0-30*) _____

28. During the **previous 30 days**, did you ever eat less than you felt you should because you didn't have enough money, or meal swipes, for food?

- ☐ Yes
- ☐ No
- ☐ I don't know

29. During the **previous 30 days**, were you ever hungry but didn't eat because you didn't have enough money, or meal swipes, for food?

- ☐ Yes
- ☐ No
- ☐ I don't know

30. During the **previous 30 days**, did you lose weight because you didn't have enough money, or meal swipes, for food?

- ☐ Yes
- ☐ No
- ☐ I don't know

31. During the **previous 30 days**, did you ever not eat for a whole day because you didn't have enough money, or meal swipes, for food?

- ☐ Yes
- ☐ No (*skip to question 33*)
- ☐ I don't know (*skip to question 33*)

32. How often did this happen in the **previous 30 days**? (*enter 0-30*) _____

For the following statements, please indicate whether the statement was often true, sometimes true, or never true for you during the previous 30 days.

33. "We relied on only a few kinds of low-cost food to feed our child(ren) because we were running out of money to buy food."

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

34. "We couldn't feed our child(ren) a balanced meal, because we couldn't afford that."

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

35. "Our child(ren) were not eating enough because we just couldn't afford enough food."

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ I prefer not to say

The following questions will be about the previous 30 days.

36. During the **previous 30 days**, did you ever cut the size of your child(ren)'s meals because you didn't have enough money for food?

- ☐ Yes
- ☐ No
- ☐ I don't know

37. During the **previous 30 days**, was your child(ren) ever hungry, but you just couldn't afford more food?

- ☐ Yes
- ☐ No
- ☐ I don't know

38. During the **previous 30 days**, did your child(ren) ever skip meals because you didn't have enough money for food?

- ☐ Yes
- ☐ No (*skip to question 40*)
- ☐ I don't know (*skip to question 40*)

39. How often did this happen in the **previous 30 days**? (*enter 0-30*) _____

40. During the **previous 30 days**, did your child(ren) ever not eat for a whole day because you didn't have enough money for food?

- ☐ Yes
☐ No
☐ I don't know

41. Please indicate how you feel about the following statements over the **previous 30 days**.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
It is easy for me to prepare food to eat at home. <i>For example, having access to a kitchen, pots, pans, or appliances, to prepare a meal to eat at home.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy for me to store enough food for my household to last for two weeks. <i>For example, being able to purchase, and having enough pantry, shelf, or refrigerator space to safely store food.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy for me to prepare food to eat on campus. <i>For example, preparing a bagged lunch or other food that you made yourself, to eat on campus.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy for me to purchase food off campus to eat on campus. <i>For example, purchasing a hot meal or prepackaged food from an off-campus vendor.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is easy for me to purchase food to eat on campus. <i>For example, using either meal swipes, flex dollars, or cash to purchase food on campus.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I rely on campus dining services, or use my meal plan, for most of my meals each week.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I eat most of my meals each week on campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have enough time to eat breakfast before class in the morning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have enough time to eat lunch between classes in the afternoon.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have enough time to eat dinner before class in the evening.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not need to eat during class time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I attend events on campus mostly for the free food that they might have.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with the variety of food available for purchase on campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with the quality of food available for purchase on campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am satisfied with the price of food available for purchase on campus.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

42. What, if anything, could the University do to be helpful for you and your household to ensure that you have access to food and other household necessities?

43. Is there anything else that you would like to share with us about your experiences with food on campus?

Table A1. Predictors of student food insecurity and very low food security in the past 30 days, Fall 2022 (observed data)

Respondent Characteristic	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Is Under 24 Years	0.012	0.186	0.004	1	0.948	1.012	0.144	0.205	0.494	1	0.482	1.155
Woman	0.272	0.113	5.823	1	0.016	1.313	0.189	0.127	2.194	1	0.139	1.207
Gender Queer	0.587	0.247	5.639	1	0.018	1.798	0.818	0.255	10.286	1	0.001	2.265
Black or African American	0.620	0.154	16.231	1	0.000	1.859	0.550	0.167	10.821	1	0.001	1.734
Latino/a/x Ethnicity	0.236	0.143	2.712	1	0.100	1.266	0.401	0.157	6.545	1	0.011	1.493
Asian or Pacific Islander	0.349	0.186	3.495	1	0.062	1.417	0.209	0.217	0.928	1	0.335	1.232
Multiracial	0.332	0.256	1.683	1	0.195	1.393	0.496	0.270	3.360	1	0.067	1.642
Other Race/Ethnicity	-0.178	0.344	0.267	1	0.605	0.837	-0.119	0.394	0.091	1	0.763	0.888
In a Relationship	0.117	0.108	1.186	1	0.276	1.125	0.258	0.118	4.790	1	0.029	1.295
Received Free/Reduced Price Lunch	0.513	0.120	18.256	1	0.000	1.670	0.430	0.132	10.567	1	0.001	1.537
First Generation College Student	0.425	0.110	14.934	1	0.000	1.530	0.408	0.122	11.200	1	0.001	1.504
First Year College Student	-0.546	0.122	20.056	1	0.000	0.579	-0.385	0.136	8.013	1	0.005	0.680
Current GPA is at Least 3.0	-0.140	0.115	1.496	1	0.221	0.869	-0.026	0.126	0.043	1	0.836	0.974
Currently Employed	0.088	0.120	0.538	1	0.463	1.092	-0.039	0.134	0.086	1	0.769	0.961
Currently Working 20+ Hours/Week	0.213	0.144	2.184	1	0.139	1.238	0.247	0.155	2.534	1	0.111	1.280
Received Any Social Service Assistance	0.188	0.047	15.919	1	0.000	1.206	0.167	0.045	13.976	1	0.000	1.182
Has Dependent Children	-1.150	0.424	7.345	1	0.007	0.317	-0.902	0.474	3.627	1	0.057	0.406
Lives at Home with Parent/Guardian	-0.551	0.112	24.209	1	0.000	0.576	-0.233	0.122	3.635	1	0.057	0.792
Parent Pays for College	-0.452	0.113	15.996	1	0.000	0.637	-0.296	0.129	5.262	1	0.022	0.744
Not Enough Time to Eat Before Class	0.684	0.120	32.271	1	0.000	1.982	0.727	0.124	34.115	1	0.000	2.068
Constant	-0.859	0.240	12.762	1	0.000	0.424	-2.116	0.275	59.047	1	0.000	0.120
Cox & Snell R Square	0.142						0.100					
Nagelkerke R Square	0.191						0.146					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 1,861. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Table A2. Predictors of student food insecurity and very low food security in the past 30 days, Fall 2022 (imputed data)

Respondent Characteristic	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Is Under 24 Years	-0.059	0.195	0.092	1	0.762	0.943	0.151	0.188	0.641	1	0.423	1.163
Woman	0.303	0.112	7.292	1	0.007	1.354	0.272	0.115	5.622	1	0.018	1.312
Gender Queer	0.575	0.258	4.985	1	0.026	1.777	0.654	0.247	7.039	1	0.008	1.924
Black or African American	0.537	0.162	10.999	1	0.001	1.711	0.553	0.154	12.915	1	0.000	1.739
Latino/a/x Ethnicity	0.133	0.146	0.832	1	0.362	1.142	0.353	0.144	5.975	1	0.015	1.423
Asian or Pacific Islander	0.328	0.186	3.119	1	0.077	1.388	0.353	0.189	3.480	1	0.062	1.424
Multiracial	0.054	0.261	0.043	1	0.835	1.056	0.413	0.255	2.613	1	0.106	1.511
Other Race/Ethnicity	-0.184	0.334	0.303	1	0.582	0.832	0.037	0.341	0.012	1	0.913	1.038
In a Relationship	0.156	0.110	2.003	1	0.157	1.168	0.031	0.109	0.082	1	0.774	1.032
Received Free/Reduced Price Lunch	0.671	0.124	29.498	1	0.000	1.956	0.449	0.121	13.869	1	0.000	1.567
First Generation College Student	0.450	0.113	15.953	1	0.000	1.569	0.360	0.111	10.474	1	0.001	1.433
First Year College Student	-0.436	0.122	12.846	1	0.000	0.647	-0.447	0.123	13.168	1	0.000	0.640
Current GPA is at Least 3.0	-0.033	0.116	0.082	1	0.774	0.967	-0.173	0.115	2.248	1	0.134	0.841
Currently Employed	0.158	0.121	1.695	1	0.193	1.171	0.010	0.121	0.007	1	0.932	1.010
Currently Working 20+ Hours/Week	0.085	0.150	0.326	1	0.568	1.089	0.324	0.145	5.010	1	0.025	1.382
Received Any Social Service Assistance	0.214	0.054	15.770	1	0.000	1.239	0.145	0.045	10.557	1	0.001	1.157
Has Dependent Children	-1.214	0.429	8.002	1	0.005	0.297	-0.814	0.426	3.643	1	0.056	0.443
Lives at Home with Parent/Guardian	-0.740	0.114	42.345	1	0.000	0.477	-0.442	0.113	15.354	1	0.000	0.643
Parent Pays for College	-0.404	0.112	13.025	1	0.000	0.668	-0.432	0.115	14.081	1	0.000	0.649
Not Enough Time to Eat Before Class	0.763	0.131	34.170	1	0.000	2.144	0.821	0.119	47.507	1	0.000	2.272
Constant	-0.255	0.243	1.101	1	0.294	0.775	-1.202	0.245	24.043	1	0.000	0.301
Cox & Snell R Square	0.151						0.128					
Nagelkerke R Square	0.204						0.173					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 1,861. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Table A3. Predictors of student food insecurity and very low food security in the past 30 days, Spring 2023 (observed data)

Respondent Characteristics	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Under 24 Years	-0.008	0.203	0.002	1	0.969	0.992	0.111	0.216	0.264	1	0.608	1.117
Woman	0.315	0.127	6.107	1	0.013	1.370	0.526	0.142	13.626	1	0.000	1.692
Gender Queer	0.700	0.263	7.089	1	0.008	2.013	0.848	0.261	10.574	1	0.001	2.335
Black or African American	0.488	0.183	7.120	1	0.008	1.629	0.382	0.191	3.985	1	0.046	1.465
Latino/a/x Ethnicity	0.342	0.168	4.134	1	0.042	1.408	0.401	0.178	5.097	1	0.024	1.493
Asian or Pacific Islander	0.241	0.213	1.284	1	0.257	1.273	-0.195	0.252	0.598	1	0.439	0.823
Multiracial	0.286	0.300	0.904	1	0.342	1.331	0.312	0.316	0.971	1	0.324	1.366
Other Race/Ethnicity	-0.003	0.400	0.000	1	0.994	0.997	0.149	0.434	0.118	1	0.731	1.161
In a Relationship	0.448	0.126	12.559	1	0.000	1.566	0.415	0.134	9.598	1	0.002	1.515
Received Free/Reduced Price Lunch	0.304	0.140	4.727	1	0.030	1.355	0.239	0.150	2.549	1	0.110	1.270
First Generation College Student	0.500	0.130	14.841	1	0.000	1.648	0.311	0.140	4.912	1	0.027	1.364
First Year College Student	-0.435	0.137	10.098	1	0.001	0.647	-0.547	0.152	12.948	1	0.000	0.578
Current GPA is at Least 3.0	-0.204	0.143	2.019	1	0.155	0.816	-0.249	0.150	2.749	1	0.097	0.780
Currently Employed	-0.112	0.138	0.655	1	0.418	0.894	-0.128	0.150	0.728	1	0.394	0.880
Currently Working 20+ Hours/Week	0.164	0.168	0.952	1	0.329	1.178	0.102	0.175	0.338	1	0.561	1.107
Received Any Social Service Assistance	0.116	0.058	4.048	1	0.044	1.123	0.048	0.057	0.716	1	0.397	1.049
Has Dependent Children	-1.327	0.581	5.218	1	0.022	0.265	-1.194	0.694	2.961	1	0.085	0.303
Live at Home with Parent/Guardian	-0.550	0.131	17.682	1	0.000	0.577	-0.492	0.141	12.176	1	0.000	0.612
Parent Pays for College	-0.265	0.127	4.372	1	0.037	0.767	-0.362	0.140	6.675	1	0.010	0.697
Not Enough Time to Eat Before Class	0.668	0.133	25.174	1	0.000	1.950	0.575	0.136	17.772	1	0.000	1.776
Constant	-0.476	0.275	2.993	1	0.084	0.621	-1.430	0.298	23.082	1	0.000	0.239
Cox & Snell R Square	0.113						0.092					
Nagelkerke R Square	0.151						0.130					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 1,312. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Table A4. Predictors of student food insecurity and very low food security in the past 30 days, Spring 2023 (imputed data)

Respondent Characteristics	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Under 24 Years	-0.354	0.225	2.475	1	0.116	0.702	0.105	0.202	0.271	1	0.602	1.111
Woman	0.381	0.132	8.343	1	0.004	1.464	0.453	0.129	12.418	1	0.000	1.573
Gender Queer	0.729	0.289	6.370	1	0.012	2.073	0.747	0.257	8.428	1	0.004	2.111
Black or African American	0.419	0.200	4.394	1	0.036	1.520	0.442	0.181	5.986	1	0.014	1.556
Latino/a/x Ethnicity	0.082	0.177	0.215	1	0.643	1.086	0.297	0.167	3.163	1	0.075	1.346
Asian or Pacific Islander	-0.159	0.218	0.531	1	0.466	0.853	0.182	0.214	0.720	1	0.396	1.199
Multiracial	0.137	0.317	0.187	1	0.665	1.147	0.069	0.301	0.053	1	0.818	1.072
Other Race/Ethnicity	-0.328	0.409	0.645	1	0.422	0.720	0.135	0.401	0.113	1	0.736	1.145
In a Relationship	0.336	0.133	6.361	1	0.012	1.400	0.397	0.126	9.921	1	0.002	1.487
Received Free/Reduced Price Lunch	0.359	0.149	5.816	1	0.016	1.432	0.234	0.139	2.823	1	0.093	1.264
First Generation College Student	0.454	0.138	10.835	1	0.001	1.575	0.439	0.129	11.473	1	0.001	1.550
First Year College Student	-0.353	0.141	6.278	1	0.012	0.703	-0.298	0.137	4.713	1	0.030	0.742
Current GPA is at Least 3.0	-0.186	0.152	1.492	1	0.222	0.830	-0.327	0.142	5.323	1	0.021	0.721
Currently Employed	-0.086	0.143	0.364	1	0.547	0.917	-0.188	0.139	1.842	1	0.175	0.829
Currently Working 20+ Hours/Week	0.166	0.180	0.854	1	0.355	1.181	0.116	0.167	0.484	1	0.486	1.123
Received Any Social Service Assistance	0.069	0.061	1.260	1	0.262	1.071	0.111	0.056	3.869	1	0.049	1.117
Has Dependent Children	-1.815	0.574	9.995	1	0.002	0.163	-1.196	0.602	3.949	1	0.047	0.302
Live at Home with Parent/Guardian	-0.640	0.136	22.005	1	0.000	0.527	-0.403	0.130	9.576	1	0.002	0.669
Parent Pays for College	-0.283	0.132	4.591	1	0.032	0.754	-0.332	0.128	6.797	1	0.009	0.717
Not Enough Time to Eat Before Class	0.700	0.146	22.871	1	0.000	2.013	0.745	0.131	32.569	1	0.000	2.107
Constant	0.597	0.295	4.092	1	0.043	1.816	-0.801	0.275	8.475	1	0.004	0.449
Cox & Snell R Square	0.101						0.108					
Nagelkerke R Square	0.139						0.145					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 1,312. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Table A5. Predictors of student food insecurity and very low food security in the past 30 days, Spring 2024 (observed data)

Respondent Characteristics	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Under 24 Years	-0.172	0.222	0.600	1	0.439	0.842	-0.240	0.237	1.031	1	0.310	0.786
Woman	0.002	0.171	0.000	1	0.992	1.002	-0.057	0.184	0.096	1	0.757	0.945
Gender Queer	1.509	0.399	14.287	1	0.000	4.524	1.032	0.350	8.699	1	0.003	2.807
Black or African American	0.823	0.243	11.459	1	0.001	2.277	0.736	0.254	8.389	1	0.004	2.088
Latino/a/x Ethnicity	0.393	0.226	3.036	1	0.081	1.482	0.338	0.245	1.905	1	0.167	1.402
Asian or Pacific Islander	0.510	0.241	4.493	1	0.034	1.665	0.337	0.268	1.579	1	0.209	1.401
Multiracial	0.757	0.380	3.974	1	0.046	2.132	0.736	0.374	3.879	1	0.049	2.088
Other Race/Ethnicity	-0.006	0.472	0.000	1	0.989	0.994	0.521	0.489	1.136	1	0.287	1.684
In a Relationship	-0.006	0.160	0.001	1	0.972	0.994	0.086	0.173	0.248	1	0.618	1.090
Received Free/Reduced Price Lunch	0.210	0.189	1.236	1	0.266	1.234	0.501	0.204	6.052	1	0.014	1.650
First Generation College Student	0.741	0.172	18.618	1	0.000	2.097	0.571	0.187	9.359	1	0.002	1.770
First Year College Student	0.118	0.188	0.394	1	0.530	1.125	0.039	0.203	0.036	1	0.849	1.039
Current GPA is at Least 3.0	-0.441	0.196	5.078	1	0.024	0.643	-0.349	0.200	3.053	1	0.081	0.706
Currently Employed	0.332	0.180	3.413	1	0.065	1.394	0.154	0.196	0.620	1	0.431	1.166
Currently Working 20+ Hours/Week	-0.246	0.208	1.396	1	0.237	0.782	0.232	0.220	1.109	1	0.292	1.261
Received Any Social Service Assistance	0.100	0.063	2.549	1	0.110	1.106	0.014	0.055	0.062	1	0.804	1.014
Has Dependent Children	-0.688	0.619	1.236	1	0.266	0.502	-1.291	0.814	2.516	1	0.113	0.275
Live at Home with Parent/Guardian	-1.010	0.166	36.922	1	0.000	0.364	-0.694	0.179	14.989	1	0.000	0.500
Parent Pays for College	-0.187	0.169	1.227	1	0.268	0.830	-0.169	0.185	0.835	1	0.361	0.844
Not Enough Time to Eat Before Class	0.802	0.184	19.079	1	0.000	2.230	0.563	0.186	9.172	1	0.002	1.755
Constant	-0.416	0.329	1.599	1	0.206	0.659	-1.383	0.357	15.020	1	0.000	0.251
Cox & Snell R Square	0.161						0.105					
Nagelkerke R Square	0.215						0.151					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 846. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

Table A6. Predictors of student food insecurity and very low food security in the past 30 days, Spring 2024 (imputed data)

Respondent Characteristics	Food Insecurity (Low + Very Low Food Security)						Very Low Food Security					
	B	S.E.	Wald	df	Sig.	OR	B	S.E.	Wald	df	Sig.	OR
Under 24 Years	0.264	0.230	1.322	1	0.250	1.302	0.068	0.228	0.088	1	0.767	1.070
Woman	0.095	0.178	0.286	1	0.593	1.100	0.094	0.174	0.291	1	0.590	1.099
Gender Queer	1.200	0.443	7.331	1	0.007	3.319	1.395	0.381	13.431	1	0.000	4.034
Black or African American	0.450	0.255	3.133	1	0.077	1.569	0.713	0.245	8.493	1	0.004	2.041
Latino/a/x Ethnicity	0.241	0.236	1.048	1	0.306	1.273	0.466	0.230	4.096	1	0.043	1.593
Asian or Pacific Islander	0.881	0.258	11.642	1	0.001	2.413	0.765	0.245	9.763	1	0.002	2.150
Multiracial	0.672	0.428	2.462	1	0.117	1.957	0.942	0.380	6.131	1	0.013	2.564
Other Race/Ethnicity	-0.015	0.480	0.001	1	0.975	0.985	0.272	0.478	0.324	1	0.569	1.312
In a Relationship	0.057	0.167	0.118	1	0.731	1.059	-0.057	0.163	0.124	1	0.725	0.944
Received Free/Reduced Price Lunch	0.398	0.200	3.971	1	0.046	1.489	0.145	0.192	0.573	1	0.449	1.156
First Generation College Student	0.753	0.179	17.659	1	0.000	2.123	0.743	0.175	18.084	1	0.000	2.103
First Year College Student	-0.384	0.194	3.895	1	0.048	0.681	0.092	0.191	0.235	1	0.628	1.097
Current GPA is at Least 3.0	-0.337	0.214	2.473	1	0.116	0.714	-0.518	0.196	6.992	1	0.008	0.596
Currently Employed	0.445	0.189	5.518	1	0.019	1.560	0.264	0.183	2.089	1	0.148	1.302
Currently Working 20+ Hours/Week	-0.417	0.218	3.651	1	0.056	0.659	-0.066	0.211	0.098	1	0.754	0.936
Received Any Social Service Assistance	0.165	0.080	4.260	1	0.039	1.179	0.076	0.060	1.581	1	0.209	1.078
Has Dependent Children	-1.223	0.624	3.836	1	0.050	0.294	-0.654	0.634	1.061	1	0.303	0.520
Live at Home with Parent/Guardian	-0.952	0.172	30.807	1	0.000	0.386	-0.999	0.170	34.614	1	0.000	0.368
Parent Pays for College	-0.469	0.173	7.347	1	0.007	0.625	-0.275	0.172	2.557	1	0.110	0.759
Not Enough Time to Eat Before Class	0.707	0.205	11.903	1	0.001	2.028	1.103	0.185	35.611	1	0.000	3.013
Constant	0.016	0.344	0.002	1	0.962	1.017	-0.856	0.337	6.455	1	0.011	0.425
Cox & Snell R Square	0.156						0.172					
Nagelkerke R Square	0.214						0.231					

Note: OR, odds ratio. Logistic regression coefficients and standard errors. Reference category for gender is 'Man'. Reference category for race/ethnicity is 'White'. N of respondents with complete data on all covariates = 846. Significant positive predictors are highlighted in green and negative (i.e., protective) predictors in orange. Darker shades indicate significant predictors with ORs ≥ 2 or ≤ 0.5 .

