The importance of a quality college education in the American workplace cannot be understated. In our modern society, a college education continues to be a major contributor to financial opportunity for the American family. Pop culture references further lend importance to the college experience as a rite of passage for a burgeoning adult, filled with independence, social events, coffee shop study groups, and life-long friendships. Yet, research suggests more than 30% of American college students struggle to meet even basic needs as they pursue a better future. To ensure all students have the opportunity to pursue higher education and the benefits it provides to their personal lives, the American economy, and our democratic republic, colleges and universities must have the capacity to strategically address student basic needs.

Hunger Solutions Institute at Auburn University and partnering universities of the Alabama Campus Coalition for Basic Needs (ACCBN) to address college student food insecurity throughout the state of Alabama.

**College Student Food Insecurity Prevalence and Risk Factors**

While data on the prevalence of food insecurity in college students remains sparse, many researchers are working to develop common methods to measure food insecurity in the college student population. In a recent United States Government Accountability Office report\(^2\) that included a review of 31 studies, estimates of food insecurity among college students ranged from 9 percent to more than 50 percent. Twenty-two of the 31 studies indicated food insecurity rates of more than 30 percent, which translates to about 1 in 3 college students being food insecure.

Hunger Solutions Institute is supporting Alabama colleges and universities in utilizing common metrics and methods to determine the prevalence of food insecurity in college students throughout Alabama. A study aggregating food insecurity prevalence among nine Alabama four-year universities is underway and completed analyses of six individual universities reveal food insecurity prevalence ranging from 30% to 63% of responding students. The diverse results of these analyses imply that all universities have work to do to address basic needs and promote student success; a third of the student population facing food insecurity, at the very least, is far too many students struggling to juggle academic responsibilities with accessing adequate food resources.

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While data also is sparse on risk factors of college student food insecurity, researchers have found specific groups of students face food insecurity to a greater degree. Student groups facing food insecurity to a greater degree include first-generation college students, students receiving SNAP, being a single parent, being disabled, being homeless or at risk of homelessness, being a former foster youth, students of color, LGBTQ+ students, and students that were primary caretakers for children\textsuperscript{3} \textsuperscript{4} \textsuperscript{5} \textsuperscript{6}.

Hunger Solutions Institute also is supporting Alabama colleges and universities in determining target indicators of food insecurity in college students throughout Alabama. Preliminary data in four-year universities indicate that student demographics and food insecurity risk factors vary substantially, even among universities within the same state. Although aggregate data has not been fully analyzed at the time of this report, initial results from three Alabama universities suggested interesting trends among student responses: Food insecurity was higher among younger students, Black students, individuals enrolled full-time, and students working more than one job. Individuals facing higher levels of food insecurity were more likely to receive at least one form of public assistance (such as SNAP, TANF, housing assistance, etc.).

The Food-Insecure College Experience

In addition to broadening understanding of the prevalence and target indicators of college students facing food insecurity, Hunger Solutions Institute and the Alabama Campus Coalition for Basic Needs (ACCBN) seeks to give a voice to students experiencing food insecurity on Alabama college campuses. With the expertise of qualitative researcher Dr. Crystal Garcia, professor of Educational Administration at University of Nebraska, Lincoln, Hunger Solutions Institute and ACCBN desire to bring awareness to the unique struggles of students who are food insecure while trying to obtain a higher education. Experiences of these students humanize statistics presented in this paper and contemporary research on this topic; every number has a name.

A full-time undergraduate student at a typical four-year university in Alabama attends 12 to 18 hours of class each week, and university policy states this assumes approximately 2 to 2.5 hours of work outside of instruction per course credit, totaling between 34 and 60 hours per week of class attendance and related study. One interviewed student highlighted the impact of food insecurity on her ability to complete her studies, noting, “Food was impacting my ability to go to class and perform because I'd be in these three-hour classes where I had to focus for those three hours. I couldn't because I was hungry, and I didn't have anything to eat. I just didn’t.” Even the most diligent student may struggle to meet requirements of their academic responsibilities when experiencing food insecurity.

Hunger Solutions Institute and ACCBN’s recent qualitative research further demonstrated that students who independently attempt to fund living expenses while pursuing their studies face difficult decisions about paying bills and buying food. One student mentioned,
“It's an overall issue of students only being able to work [on campus] a maximum of 20 hours, and they're not the highest paying jobs and you know, students have to live as well. And sometimes it came with harder choices, paying for rent and for school related things over having something to eat.”

It was encouraging to hear the availability of campus food aid has a profound impact on student success. Students remarked that having reliable access to food was “life changing,” that it was “something to keep you going,” and “one less thing to have to tackle” from an overwhelming list of responsibilities. Poignantly, one student remarked, “I would not have been able to hold on if food was not, if that did not keep me going. I know that sounds like really, that doesn't sound that great, but that's just the truth of what it is. During those times I had mental health resources. I had food resources. All of my basic needs were pretty much covered. So I was able to continue to prioritize education.” One thing highlighted from speaking directly with college students who struggle with food insecurity is that assistance from their institution of higher learning can essentially be a deciding factor if a degree is within reach.

**Contributing Factors to Campus Food Insecurity**

Americans who attain college degrees are more likely to make higher wages\(^7\)\(^8\), experience healthier lives\(^9\)\(^10\), are less likely to experience poverty\(^11\), and contribute positively

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\(^8\) Trostel, P.A., (2015). It’s not just the money: The benefits of college education to individuals and to society.. *Government & Civic Life, 4*.


to the social and economic well-being of society\textsuperscript{12}. Yet, as the desire for higher education and college enrollment has increased, the attainment of a college degree has become less affordable; American families incur more debt, work longer hours, and spend a larger percentage of their income on a college education than ever before\textsuperscript{13}. This notably impacts students within lower socio-economic households more than their middle-class and affluent counterparts, with financial barriers hindering their opportunity to leave behind generational poverty and participate as a contributing member of the American economy.

Students who benefit from public assistance throughout K-12 education, such as the National School Lunch Program, become vulnerable to food insecurity as they pursue higher education. The expansion of SNAP eligibility to college students under the Consolidated Appropriations Act of 2021 made public food assistance available to an estimated 3 million college students\textsuperscript{14}, but when these temporary adjustments expire, these students will return to the familiar experience of choosing between paying for their studies, paying bills, and accessing food. Research suggests many food insecure college students experienced hunger prior to matriculation (Forman, Managing, Dong, Hernandez and Fingerman 2018; Martinex, Maynard, and Ritchie 2016), and reduced access to public assistance programs compounds food insecurity as students pursue higher education.


\textsuperscript{13} National Center for Public Policy and Higher Education (2002). *Losing ground: A national status report on the affordability of American higher education*. National Center for Public Policy and Higher Education.

Minimal information available to students for accessing food resources and stigma that may accompany accessing assistance further exacerbates college student food insecurity (King 2017, Twill, Bergdahl and Fensler 2016; Henry 2017). A key aspect of Hunger Solutions Institute and ACCBN-led research is to assist universities in identifying campus policies, practices, and culture that may impede students’ ability to address food insecurity. Utilizing the Campus Food-Aid Self-Assessment Tool (C-FAST), ACCBN partnering universities conduct a comprehensive evaluation of student supports, campus awareness and advocacy, and education about food insecurity on each individual campus. Awareness of institutional shortcomings addressing students’ basic needs is key to effectively reducing college student food insecurity.

**Broadening Capacity to Address College Student Food Insecurity**

In 2019, the Hunger Solutions Institute, in partnership with the Auburn University Nutrition, Dietetics, and Hospitality Management Department launched the Alabama Campus Coalition for Basic Needs (ACCBN). Initially, ACCBN was made up of 12 four-year universities in Alabama, including three Historically Black Colleges and Universities. In 2021, ACCBN expanded to include the Alabama Community College System and its corresponding 27 community colleges. The mission of ACCBN is to unify college campuses throughout Alabama to ensure

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student basic needs are met, thereby empowering all students to succeed in school, earn their degrees, and open doors to opportunity. ACCBN is focusing its initial efforts on college student food insecurity.¹⁹

ACCBN serves as a statewide network of Alabama colleges, universities, and key stakeholders seeking to eliminate college student food insecurity. Additionally, ACCBN strives to increase awareness of college student food insecurity; make college student food security a priority on college campuses; and support strategies to ensure access to healthy, affordable, and culturally appropriate foods on Alabama college campuses, at universities, and in surrounding communities. Hunger Solutions Institute supports capacity building and collaborative research at each college and among all university partners to assist ACCBN in realizing its goals.

Collaborative Hunger Solutions Institute and ACCBN research efforts confirmed there is no “silver bullet” solution to addressing college student food insecurity at every college/university; the diversity of our nation is reflected in the variety of higher education institutions across the United States. Rather, the Hunger Solutions Institute posits the solution for each college or university rests in a careful assessment of strengths and challenges at each institution, led by a coalition of passionate and diverse advocates for student needs. Recognizing and respecting the diverse demographic make-up and unique campus culture of each institution, each ACCBN partnering university follows a six-step process to address student food insecurity:

¹⁹ See Addendum A for more detailed information on ACCBN.
● ENGAGE a coalition of passionate and diverse stakeholders throughout the college setting and surrounding community.

● ASSESS the prevalence of student food insecurity and elements of campus culture that may be improved to reduce college student food insecurity.

● IMPLEMENT a plan with measurable goals, based on the collected data, to address the needs and target indicators.

● EVALUATE the impact of the intervention(s), assessing the direct effect on students and including post-intervention measures of food insecurity prevalence and campus culture.

● CELEBRATE successes throughout the process, recognizing progress and sharing lessons with others to replicate throughout colleges and universities within the United States and abroad.

The Hunger Solutions Institute supports ACCBN in systematically addressing college student food insecurity throughout the state of Alabama in data-driven ways. A comprehensive investigation of the prevalence of student food insecurity, target indicators of students facing food insecurity, and campus culture and resources available to address student food insecurity informs a deliberate plan aligning with the university’s strategic plan and maximizes use of available human and financial resources. The Hunger Solutions Institute emphasizes that supporting data-driven, innovative solutions specific to each college is critical in addressing college student food insecurity.

20 See Addendum B for a brief sample report and Addendum C for a detailed sample report HSI provides Alabama colleges and universities following the comprehensive assessment and supporting development of the deliberate plan.
Although current endeavors to guide Alabama colleges through the capacity building and collaborative research process are currently funded by private foundations, opportunities remain for federal and state governments to facilitate this kind of targeted, long-term change on campuses nationwide. The Hunger Solutions Institute at Auburn University urges each member Congress to carefully examine legislation that may provide universities the opportunity to address the critical issue of college student food insecurity and appropriate funds accordingly. The collaboration of financial and legislative support from the federal government, and the prioritization of colleges and universities to this crucial issue, will inevitably promote opportunities for all Americans - regardless of humble beginnings or unexpected obstacles - to become educated and engaged citizens.
Addendum A
Alabama Campus Coalition for Basic Needs Overview
The Auburn University Hunger Solutions Institute (HSI) leverages collective efforts of postsecondary education institutions to promote adoption and advancement of best practices to address food and nutrition insecurity. In 2019, HSI in partnership with the Auburn University nutrition, dietetics and hospitality management department established Alabama Campus Coalition for Basic Needs (ACCBN), made up of 12 Alabama four-year universities and 13 Alabama community colleges:

- Alabama A&M University
- Alabama State University
- Auburn University
- Jacksonville State University
- Troy University
- Tuskegee University
- University of Alabama
- University of Alabama at Birmingham
- University of Montevallo
- University of North Alabama
- University of South Alabama
- University of West Alabama
- Bishop State Community College
- Calhoun Community College
- Central Alabama Community College
- Coastal Alabama Community College
- Drake State Community and Technical College
- Lawson State Community College
- Northeast Alabama Community College
- Northwest-Shoals Community College
- Shelton State Community College
- Snead State Community College
- Trenholm State Community College
- Wallace Community College
- Wallace State Community College

ACCBN focused its initial efforts on food insecurity. Through support of ECMC and Ichigo Foundation grants, each partner university engages a campus coalition to lead student food security efforts and identifies a campus champion to serve as a liaison between the campus coalition and ACCBN. The universities also complete assessments measuring student food insecurity prevalence and target student indicators as well as campus food aid resources and culture.

Mission

The Alabama Campus Coalition for Basic Needs seeks to unify colleges and universities throughout Alabama to ensure student basic needs are met, thereby empowering all students to succeed in school, earn degrees and open doors to opportunity.

Goals

- Increase awareness of college student hunger at colleges, universities and throughout Alabama.
- Cultivate a strong statewide network of Alabama colleges, universities and key stakeholders seeking to eliminate college student hunger.
- Strive to make college student hunger a priority on college campuses, in surrounding communities and throughout Alabama.
- Support strategies to ensure access to healthy, affordable and culturally appropriate foods on Alabama college campuses, at universities and in surrounding communities.
Addendum B
Brief Sample Report
Executive Summary

The Auburn University Hunger Solutions Institute (HSI) leverages collective efforts of postsecondary education institutions to promote adoption and advancement of best practices to address food and nutrition insecurity. In 2019, HSI in partnership with the Auburn University Department of Nutrition, Dietetics and Hospitality Management established Alabama Campus Coalition for Basic Needs (ACCBN), made up of 12 Alabama four-year universities and 13 Alabama community colleges:

- Alabama A&M University
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- Auburn University
- Jacksonville State University
- Troy University
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- University of Alabama
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2. Cultivate a strong statewide network of Alabama colleges, universities and key stakeholders seeking to eliminate college student hunger.

3. Strive to make campus food security a priority on college campuses, in surrounding communities and throughout Alabama.

4. Support strategies to ensure access to healthy, affordable and culturally appropriate foods on Alabama college campuses, at universities and in surrounding communities.
Student Food Insecurity Prevalence and Target Student Indicators

A total of 25% of responding students indicated the highest level of food insecurity, 12% of responding students indicated marginal food insecurity and 63% indicated food security.

As adverse experiences students reported during college increased, so did their food insecurity prevalence. A moderate, direct correlation ($r=0.56, p<.05$) was noted between the total number of adverse life events identified and total food insecurity score.

As supportive personal relationships students reported experiencing increased, their food insecurity prevalence decreased. A weak, indirect correlation ($r=-0.12, p<.05$) was noted between total number of indicated social-emotional supports and total food insecurity score.

Campus Food Aid Resources and Culture

A series of indicators were used to measure the university’s performance in student food security support across six dimensions: (1) student services and supports, (2) involvement, (3) advocacy, (4) campus culture and awareness of food insecurity, (5) education and training and (6) research, scholarship and creative works.

Campus performance was scored on a scale from 1.00 (early action stages) to 4.00 (best practice achieved). The university scored highest in campus culture and awareness of food insecurity, achieving the best practice in all associated indicators (mean score = 4.00). The university also scored highly in student services and supports with a mean score of 3.67 for both fall 2019 and fall 2020. The mean score for involvement was 3.00 followed by a 2.75 in advocacy. The university showed the greatest opportunity for improvement in education and training (mean score = 1.00) and research, scholarship and creative works (mean score = 1.00).

Recommendations for Next Steps

1. Establish an experiential learning curriculum in hunger/food insecurity for undergraduate and/or graduate students.
2. Create an opportunity for student-faculty research collaboration on hunger/food insecurity issues.
3. Develop opportunities for students currently engaged in student food insecurity activities to formalize involvement through establishment of a student organization addressing basic needs.
Addendum C
Detailed Sample Report
Data collection and analysis by Malerie Goodman and Sara Rains, Hunger Solutions Institute graduate research assistants, in collaboration with the _________ University.
To protect the privacy of ACCBN partner institutions, all information identifying the university featured in this report has been removed.
Thank You from the Hunger Solutions Institute

The prevalence of college student food insecurity is alarming. Even more alarming is the impact of college student food insecurity on student persistence, academic performance and course attendance. Action must be taken to optimize college student success for all.

Alabama colleges and universities are taking action using a data-driven, systematic approach focused on improving a broad array of campus resources and culture. Through collaborative efforts of the Alabama Campus Coalition for Basic Needs (ACCBN), Alabama students will succeed in school, earn their degrees and open doors to opportunity. Universities partnering with ACCBN must be commended for their leadership and action in addressing student basic needs collectively and on their own campuses. Alabama college and university administrators, faculty, staff and students also must be commended in swiftly acting to ensure students’ most basic needs are met. Funding partners, like the ECMC and Ichigo Foundations, must be applauded as their funding support inspires and facilitates improvements in educational outcomes – especially among underserved populations – through evidence-based innovation.

I am honored to co-facilitate ACCBN and support its associated colleges and universities as we all seek to ensure Alabama thrives in the 21st century.

Sincerely,
Alicia Powers
Managing Director, Hunger Solutions Institute
The Auburn University **Hunger Solutions Institute** (HSI) leverages collective efforts of postsecondary education institutions to promote adoption and advancement of best practices to address food and nutrition insecurity. HSI serves as secretariat for **Universities Fighting World Hunger** (UFWH) and **Presidents United to Solve Hunger** (PUSH). UFWH began in 2004 through a partnership with the UN World Food Programme. To date, UFWH has engaged more than 300 postsecondary student groups dedicated to producing graduates who are globally aware and socially engaged. PUSH is a global consortium of more than 100 two-and four-year colleges and universities whose presidents have prioritized food and nutrition security through teaching, research, outreach and student engagement.

HSI launched **End Child Hunger in Alabama** (ECHA) in 2013. ECHA’s network has grown to include more than 50 key state leaders from government, nonprofit, faith-based communities, education and the private sector and has supported successes involving child nutrition programs, state legislation, public campaigns and many others. In 2019, HSI in partnership with the Auburn University nutrition, dietetics and hospitality management department established **Alabama Campus Coalition for Basic Needs** (ACCBN), made up of 12 Alabama universities:

- Alabama A&M University
- Alabama State University
- Auburn University
- Jacksonville State University
- Montevallo University
- Troy University
- Tuskegee University
- University of Alabama
- University of Alabama at Birmingham
- University of North Alabama
- University of South Alabama
- University of West Alabama

ACCBN focused its initial efforts on food insecurity. Through support of ECMC and Ichigo Foundation grants, each partner university engaged a campus coalition to lead student food security efforts and identified a campus champion to serve as a liaison between the campus coalition and ACCBN. The universities also completed assessments measuring student food insecurity prevalence and target student indicators as well as campus food aid resources and culture. This report provides assessment findings along with evidence-based recommendations for next steps.
Mission

The Alabama Campus Coalition for Basic Needs seeks to **unify** colleges and universities throughout Alabama to ensure student basic needs are met, thereby **empowering** all students to succeed in school, earn degrees and open doors to opportunity.

Goals

1. Increase **awareness** of college student hunger at colleges, universities and throughout Alabama.

2. Cultivate a **strong** statewide **network** of Alabama colleges, universities and key stakeholders seeking to eliminate college student hunger.

3. Strive to make college student hunger a **priority** on college campuses, in surrounding communities and throughout Alabama.

4. Support strategies to ensure **access** to healthy, affordable and culturally appropriate foods on Alabama college campuses, at universities and in surrounding communities.
Based on a survey administered fall 2020, 30% of responding students experienced food insecurity within the past 30 days. The mean total food insecurity score was 1.40 (± 2.14) on the United States Department of Agriculture (USDA) Household Food Security Survey scale of 0 to 6 with scores of 0 to 1.99 indicating no/marginal food insecurity, 2 to 4.99 indicating moderate food insecurity, and 5 to 6 indicating high food insecurity.

Roughly 35% of respondents indicated they accessed food resources on campus, in the community or from personal networks in the past 12 months.

Students who did not receive public financial assistance were at lower risk for food insecurity than those who had received public assistance since the COVID-19 pandemic began. Students who used a job, Pell Grant, other government grants, university scholarships, student loans, savings, credit cards, and/or family and friends to fund their education demonstrated higher mean food insecurity scores than those who did not.

Campus Food Aid Resources and Culture

A series of indicators were used to measure institutional performance in student food security support across six dimensions: (1) student services and supports, (2) involvement, (3) advocacy, (4) campus culture and awareness of food insecurity, (5) education and training, and (6) research, scholarship and creative works.

Campus performance was scored on a scale from 1.00 (early action stages) to 4.00 (best practice achieved). The university scored highest in student services and supports, achieving the best practice in five associated indicators (mean score = 3.56). The university also scored highly in advocacy, achieving best practices in two associated indicators (mean score = 3.50). The mean score for campus culture and awareness was 3.00 followed by involvement (mean score = 2.67), and research, scholarship and creative works (mean score = 2.67). The university showed the greatest opportunity for improvement in education and training with a mean score of 1.50.
Recommendations for Next Steps

1. Establish an experiential learning curriculum in hunger/food insecurity for undergraduate and/or graduate students.

2. Build and strengthen campus relationships through the establishment of a campus food security coalition.

3. Encourage and/or incentivize student-faculty research collaboration on hunger/food insecurity issues.
Prevalence and Target Indicators

The university administered an 82-item survey to measure basic needs of attending students. Leaders administered the online survey in November 2020. Staff solicited survey responses from a stratified random sample of 50% undergraduate students, 50% graduate students and 50% professional students who were enrolled in both spring and fall 2020. A total of 7,551 students were contacted to participate in the survey. Participating students were offered the opportunity to register for a drawing for a $100 Amazon gift card. A sample of 2,011 students responded to the survey, a response rate of 26.6%.

Survey questions addressed demographic information (gender, relationship status and enrollment status), resources available to the student (public assistance, financial aid) and adverse experiences impacting the student’s college experience. Questions regarding basic needs included inquiries about financial hardship, housing and food insecurity.

The survey included the six-question version of the USDA Household Food Security Survey (2012) to gauge the prevalence of food insecurity among attending students. The survey inquired about food insecurity experiences during the fall 2019 and spring 2020 semesters as well as within the last 30 days (as specified by the USDA Household Food Security Survey [2012]). Participant responses regarding current food insecurity were used in the following analysis.

This survey was conducted during the novel coronavirus pandemic, which may significantly impact student responses. The survey included a number of items that compared the respondent’s current experience to pre-COVID-19 conditions or previous semesters.

Demographics of Survey Respondents

The majority of survey respondents were female (69%), full-time students (81.9%) and undergraduate students (62%). Approximately 62% of the respondents were White. Three-quarters of participating students currently live in on-campus housing. Of the students who responded, 12% utilize a Pell Grant to assist with tuition expenses, and 46% have accessed public assistance (such as TANF, SNAP, WIC, etc.) since the beginning of the COVID-19 pandemic.
Student Food Insecurity Prevalence

Food security was determined using scoring procedures prescribed by the USDA (2012). Responses to questions addressing food insecurity were scored as binary variables (0 or 1). Responses of Sometimes True or Often True were scored affirmative (1), and when indicating how often food insecurity was experienced in the last 30 days, responses of three days or more were scored affirmative (1). Affirmative responses were summed to provide an overall measure of food security. Total raw food security scores ranged from 0 to 6. Total raw scores are defined by the USDA (2012) as follows: 0 to 1, high or marginal food security; 2 to 4, low food security; 5 to 6, very low food security. For the purposes of this report, a score of 0.00 to 1.99 will be defined as food secure and a score of 2.00-6.00 will be defined as food insecure.

Based on results of the survey, 30% of responding students indicated food insecurity. The mean total food insecurity score was 1.40 (±2.14).

Holding all else constant within a statistical regression, student indication that they had accessed assistance for food resources in the past calendar year was associated with a food insecurity score more than two points higher than those who had not (p<.05). Roughly 35% of respondents indicated they had accessed the campus food pantry, a community food bank, a soup kitchen, a dumpster, a charity or church, and/or a family/friend for food assistance in the past 12 months.

Students who did not receive any public financial assistance (TANF, SNAP, WIC, SSI, SSDI, Medicaid, CMA, unemployment, aid for utilities, housing, transportation, tax refunds or veteran benefits) were at lower risk for food insecurity than those who had received public assistance since the COVID-19 pandemic began. Holding all else constant within a statistical regression, student indication that they had not received public assistance during the COVID-19 pandemic was associated with a lower food insecurity score of approximately 0.3 points (p<.05).

1 TANF – Temporary Aid for Needy Families; SNAP – Supplemental Nutrition Assistance Program; WIC – Women, Infants and Children Program; SSI – Supplemental Security Income; SSDI – Social Security Disability Insurance; CMA – Childcare Management Assistance program
Students experienced a number of adverse circumstances that negatively impacted their food security in the 30 days preceding the survey. Students who had to underpay rent \( (W=32114, \ p<.05) \), experienced a rent increase \( (W=61812, \ p<.05) \), had to underpay utilities \( (W=59716, \ p<.05) \), moved homes \( (W=12150, \ p<.05) \), moved in with others \( (W=39570, \ p<.05) \), lived in situations that exceeded housing capacities \( (W=20854, \ p<.05) \), had received calls from debt collections \( (W=34227, \ p<.05) \), or had to remain in an unsafe living environment \( (W=17830, \ p<.05) \) in the past 30 days reported significantly higher mean food insecurity scores than those who did not. Students living on campus indicated a higher mean food insecurity score than students living off campus \( (W=68046, \ p<.05) \).

Interestingly, students who had a job since the COVID-19 pandemic began indicated higher mean food insecurity scores than those who did not \( (W=316993, \ p<.05) \). Students working more than one job demonstrated the highest mean score of food insecurity \( (M=2.736) \). Individuals who reported they were looking for work at the time of the survey also indicated a higher mean food insecurity score than those who were not \( (W=39947, \ p<.05) \).
Students who used a job, Pell Grant, other government grants, university scholarships, student loans, savings, credit cards and/or family/friends to fund their education demonstrated higher mean food insecurity scores than those who did not. Holding all else constant, students utilizing a Pell Grant or student loans to fund their education was associated with greater food insecurity (0.53 and 0.27 points higher, respectively, \(p<.05\)).

A variety of Ordinary Least Squares (OLS) regression models were explored to identify reliable risk factors for food insecurity among the student sample. A model including student access of food assistance in the past 12 months (binary variable), student access of government assistance since the COVID-19 pandemic began (binary variable), student using the Pell Grant to fund their education, student utilizing student loans to fund their education, sexual orientation (heterosexual or not), and gender (female or not) explained approximately 36% of the variance among food insecurity scores (\(R^2=0.3557\)). All variables in the model were statistically significant (\(p<.05\)).
Target Student Indicators
The following student characteristics may suggest a heightened level of risk for food insecurity as indicated by analysis of data:

**Students who sought out food resources within the past 12 months.**

**Students who accessed public assistance since the beginning of COVID-19:**
- TANF, SNAP, WIC, Medicaid, CMA, unemployment insurance, utilities assistance, housing assistance, transportation assistance, tax refunds/incentives and/or veterans benefits

**Students who do not identify as heterosexual.**

**Students who use the Pell Grant and/or student loans to fund their education.**

**Students who recently experienced adverse circumstances such as:**
- Experiencing an increase in rent
- Underpaying utilities or rent
- Moving or moving in with others
- Living in an unsafe environment or in an environment beyond its typical housing capacity
- Receiving calls from debt collectors

**Students living in public housing.**

**Students living on campus.**

**Students who are working or looking for work.**

**Students who participate in extracurricular activities.**

**Students who are no longer considered dependents of their parents.**

**Students who are not American citizens.**

**Students who have transferred from another university.**

**Students who do not live with a partner.**
Representatives of the university submitted the **Campus Food Aid Self-Assessment Tool (C-FAST)** in fall 2020. C-FAST is a survey-based tool designed to gauge college campus performance in six dimensions: (1) student services and supports, (2) involvement, (3) advocacy, (4) campus culture and awareness of food insecurity, (5) education and training, and (6) research, scholarship and creative works. Campus representatives rated the institution’s performance in each dimension using a series of indicators defined within the tool.

**Campus Overview**

Campus performance was scored on a scale from 1.00 (early action stages) to 4.00 (best practice achieved). The university scored highest in student services and supports, achieving best practice in five associated indicators (mean score = 3.56). The university also scored high in advocacy, achieving best practices in two associated indicators (mean score = 3.50). The mean score for campus culture and awareness was 3.00, followed by involvement (mean score = 2.67), and research, scholarship and creative works (mean score = 2.67). The university showed the greatest opportunity for improvement in education and training opportunities with a mean score of 1.50.

**Student Services and Supports**

Providing emergency and long-term food and financial services are imperative to reducing student food insecurity and among the most common actions taken by colleges and universities to support students experiencing food insecurity. Locations and methods of aid distribution are important factors ensuring students can access needed aid. In C-FAST, student services and supports were defined as aid available to serve immediate and long-term food security needs of students, which may come in the form of food, financial or other direct aid. Aid distribution included processes for distribution, audiences to whom aid was distributed and effectiveness of distribution methods.

**The university achieved best practice in the majority of indicators relating to student services and supports.**

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): **3.56**
### MEAN C-FAST SCORE

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<th>C-FAST Dimensions</th>
<th>C-FAST Score</th>
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<tr>
<td>Involvement</td>
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<tr>
<td>Advocacy</td>
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<td>Awareness and Culture</td>
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<tr>
<td>Educating and Training Opportunities</td>
<td>1.50</td>
</tr>
<tr>
<td>Research, Scholarship and Creative Works</td>
<td>2.67</td>
</tr>
</tbody>
</table>
**Best Practices Achieved**

Emergency and long-term services and/or supports for students facing food insecurity are:

- Consistently available
- Sufficient to serve all students facing food insecurity
- Single, clear and easy to follow (process) for access
- Broadly advertised to students on campus using methods of communication that reach all students on a regular basis
- Provided by one or more faculty and/or staff members with these responsibilities included in their job description as a primary job responsibility

**Opportunities for Improvement**

**Current Status:** Emergency and/or long-term services and/or supports for food insecure students are available during all hours of university operations.

**Next Steps:** Partner with campus departments/offices that are active even when the university is not in session to increase accessibility to services and/or supports.

**Best Practice:** Emergency and/or long-term services are available during all hours of operation and when the university is not in session. Times of availability do not hinder student access.

**Current Status:** Multiple services and supports for students facing food insecurity are available at differing locations on campus.

**Next Steps:** Centralize student services and supports so students can access all resources with a single visit.

**Best Practice:** Multiple services and/or supports for students facing food insecurity are available at a single location on campus.

**Current Status:** Services and/or supports for food insecure students are advertised broadly to faculty and/or staff on campus but are not communicated via a method that reaches all faculty and/or staff on a regular basis (hiring orientation materials, campus-wide emails, etc.).

**Next Steps:** Work with offices that communicate with all faculty and staff to find opportunities to include support information in faculty/staff communication.

**Best Practice:** Services and/or supports are advertised broadly to faculty/staff using methods that reach all faculty and/or staff on a regular basis such as orientation materials, campus-wide emails or other methods.

**Current Status:** Available services and/or supports make it possible for students facing food insecurity to meet most of their nutritional needs.

**Next Steps:** Develop services and/or supports to meet all nutritional needs of students facing food insecurity.

**Best Practice:** Available services and/or supports make it possible for food insecure students to meet all nutritional needs.
Involvement

Increased involvement from a variety of campus constituents can aid greatly in the effort to minimize student food insecurity. In this study, involvement is defined as individuals and/or groups taking action and the extent to which they are acting to reduce student food insecurity. A strong group of actors from diverse backgrounds on campus can make an effective impact on minimizing student food insecurity.

The university has made progress in multiple areas relating to campus involvement but has not achieved best practices for indicators. Opportunities exist to develop efforts toward the achievement of best practices.

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): 2.67

**Opportunity for Improvement**

**Current Status:** A formal group(s) of students with a limited impact is involved in addressing student food insecurity.

**Next Steps:** Support the student group(s) in expanding their impact through partnerships with other organizations, departments or offices across campus.

**Best Practice:** A formal group(s) of students with a campus-wide impact is involved in addressing student food insecurity.

**Opportunity for Improvement**

**Current Status:** Only individual faculty, staff and/or administrators, or an informal group(s) of faculty, staff and/or administrators, are involved in addressing student food insecurity.

**Next Steps:** Identify faculty, staff and/or administrators currently involved in addressing student food insecurity and present opportunities for them to formalize their involvement.

**Best Practice:** A formal group(s) of faculty, staff and/or administrators with a campus-wide impact is involved in addressing student food insecurity.

**Opportunity for Improvement**

**Current Status:** Individuals and/or groups on campus are working together cohesively to coordinate efforts to address student food insecurity.

**Next Steps:** Institute a campus policy appointing leadership of student food insecurity efforts to ensure long-term collaboration among involved parties.

**Best Practice:** An individual, office or other entity is mandated to lead collaboration, and individuals and/or other groups are working cohesively.
Advocacy

Research indicates the importance of having students, faculty, staff and administrators at multiple levels and positions who are aware of student food insecurity and advocate on behalf of student basic needs.

In this study, advocacy is defined as the presence of diverse campus actors who promote awareness and encourage policies/practices to support students facing food insecurity.

The university has achieved best practices in advocacy processes and policies. Opportunities for growth exist relating to the impact of advocacy groups on campus.

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): 3.50

Best Practices Achieved
Processes and/or policies on campus (1) support student advocacy, and they are utilized by students across campus and (2) support faculty, staff and/or administrator advocacy, and they are utilized by faculty staff and/or administrators across campus.

Opportunity for Improvement

Current Status: A formal group(s) of students with a limited impact is involved in advocacy for student food security issues.

Next Steps: Seek opportunities to increase the impact of student advocacy through partnerships and campus-wide platforms.

Best Practice: A formal group(s) of students with campus-wide impact is involved in advocacy for student food security issues.

Opportunity for Improvement

Current Status: A formal group(s) of faculty, staff and/or administrators with a limited impact is involved in advocacy for student food security issues.

Next Steps: Seek opportunities to increase impact of faculty, staff and/or administrator advocacy through partnerships and campus-wide platforms.

Best Practice: A formal group(s) of faculty, staff and/or administrators with a campus-wide impact is involved in advocacy for student food security issues.
Campus Culture and Awareness of Student Food Insecurity

Stigma has been recognized as one of the greatest barriers to serving and reaching students facing food insecurity. Creating a culture that accepts and normalizes student needs can help reduce the stigma students face. Additionally, increased campus awareness can be a key element in creating and improving programs for students facing food insecurity. In this study, campus culture indicators determined the extent of actions taken by the campus to improve the pervasive attitudes and beliefs held by those on campus toward students, student food insecurity and food insecurity supports. Indicators also determined the extent of actions taken by the campus to increase awareness of the issue of student food insecurity.

The university has made great strides in multiple areas relating to campus culture and awareness but has not achieved best practices for indicators. Opportunities exist to develop efforts toward the achievement of best practices.

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): 3.00

Opportunities for Improvement

**Current Status:** Efforts or programs to increase student awareness of food insecurity are promoted/run regularly on campus but are shared using methods that do not reach all students.

**Next Steps:** Identify ways to increase reach of student awareness campaigns through campus partnerships and creative avenues of communication.

**Best Practice:** Efforts or programs to increase student awareness of food insecurity are promoted regularly on campus and shared using methods that reach all students.

**Current Status:** Efforts or programs to increase faculty/staff/administrator awareness of food insecurity are promoted/run regularly on campus but are shared using methods that do not reach all faculty/staff/administrators.

**Next Steps:** Identify ways to increase reach of faculty/staff/administrator awareness campaigns through campus partnerships and creative avenues of communication.

**Best Practice:** Efforts or programs to increase faculty/staff/administrator awareness of food insecurity are promoted regularly on campus and are shared using methods that reach all students.

**Current Status:** Efforts or programs to reduce stigma of food insecurity and normalize the need for food assistance are promoted/run regularly on campus but are shared using methods that do not reach all students.

**Next Steps:** Identify ways to increase reach of efforts to reduce food insecurity stigma and normalize the need for food assistance through campus partnerships and creative avenues of communication.

**Best Practice:** Efforts or programs to reduce the stigma of food insecurity and normalize the need for food assistance are promoted regularly on campus and are shared using methods that reach all students.

**Current Status:** Efforts to reduce the stigma of services and/or supports for food insecurity are promoted/run regularly on campus but are shared using methods that do not reach all students.

**Next Steps:** Identify ways to increase reach of efforts to reduce the stigma of food insecurity services and/or supports through campus partnerships and creative avenues of communication.

**Best Practice:** Efforts or programs to reduce the stigma of services and/or supports for food insecurity are promoted regularly on campus and shared using methods that reach all students.
Education and Training

Education and training of administrators, faculty, staff and students on issues relating to food insecurity have been shown to improve academic outcomes for students facing food insecurity. In this study, education and training indicators encompassed a strong curriculum in hunger and/or food insecurity to help inform students, faculty and staff, as well as call students to action and reduce stigmas and misconceptions regarding hunger and/or food insecurity. Education and training opportunities include academic curriculum, professional development and other non-curricular learning opportunities for administrators, faculty, staff and students.

**Opportunity for Improvement**

**Current Status**: An undergraduate course on hunger/food insecurity is not offered.

**Next Steps**: Incorporate information on hunger/food insecurity in an undergraduate course already taught on campus.

**Best Practice**: An undergraduate course(s) is offered regularly on a scale that meets demand within institutional constraints.

**Opportunity for Improvement**

**Current Status**: A hunger/food insecurity minor is not offered.

**Next Steps**: Formally or informally incorporate hunger/food insecurity information in a minor already offered on campus.

**Best Practice**: A hunger/food insecurity minor is offered to undergraduate students.

**Opportunity for Improvement**

**Current Status**: A graduate course on hunger/food insecurity is not offered.

**Next Steps**: Incorporate information on hunger/food insecurity in a graduate course already taught on campus.

**Best Practice**: A graduate course(s) on hunger/food insecurity is offered regularly on a scale that meets demand within institutional constraints.
The university has many opportunities for growth in education and training relating to food insecurity.

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): **1.50**

**Opportunity for Improvement**

**Current Status:** A hunger/food insecurity graduate certificate is not offered.

**Next Steps:** Formally or informally incorporate hunger/food insecurity information in a graduate certificate already offered on campus.

**Best Practice:** A hunger/food insecurity graduate certificate is offered.

**Opportunity for Improvement**

**Current Status:** Student education and/or skills training to manage food insecurity are offered but not regularly and/or are only offered to a limited number of students.

**Next Steps:** Identify resources needed to expand student education and/or skills training in order to meet institutional demands.

**Best Practice:** Student education or skills training to manage food insecurity offered on a scale that meets demand within institutional constraints.

**Opportunity for Improvement**

**Current Status:** Faculty, staff and/or administrator continuing education or professional development offerings on campus food insecurity are available but only taught as part of continuing education or professional development offering on another subject/topic area.

**Next Steps:** Develop continuing education or professional development offering focused on college student food insecurity, and identify ways to share with faculty, staff and/or administrators.

**Best Practice:** Continuing education or professional development is offered that meets demand within institutional constraints.
Research, Scholarship and Creative Works

Research, scholarship and/or creative works are primary functions of higher education institutions. By examining food security issues, colleges and universities contribute to the growing body of knowledge aimed to improve awareness, practices and policies addressing food insecurity.

C-FAST indicators included the conduct of research, scholarship and/or creative works relating to food insecurity to add to the body of knowledge on food insecurity and bring attention to the issue through presentations, publications and conversations prompted by research.

The university has made great strides in multiple areas relating to research, scholarship and creative works but has not achieved best practices for indicators. Opportunities exist to develop efforts toward the achievement of best practices.

Fall 2020 mean C-FAST score (on a scale of 1.00-4.00): **2.67**

**Opportunity for Improvement**

**Current Status**: Undergraduate research, scholarship and/or creative works on food insecurity engages students in multiple departments and/or disciplines, but there is little collaboration among different departments/disciplines for this work.

**Next Steps**: Identify a leader in research collaboration on campus, and partner to develop an opportunity for undergraduate research collaboration on food insecurity.

**Best Practice**: Undergraduate research, scholarship and/or creative works occur in multiple disciplines with interdisciplinary collaboration.

**Opportunity for Improvement**

**Current Status**: Graduate research, scholarship and/or creative works on food insecurity engages students in multiple departments/disciplines, but there is little collaboration among different departments/disciplines for this work.

**Next Steps**: Identify a leader in research collaboration on campus, and partner to develop an opportunity for graduate research collaboration on food insecurity.

**Best Practice**: Graduate research, scholarship and/or creative works occur in multiple disciplines with interdisciplinary collaboration.

**Opportunity for Improvement**

**Current Status**: Faculty and/or staff research, scholarship and/or creative works on food insecurity engages one or more faculty and/or staff but is isolated to a single department or discipline on campus.

**Next Steps**: Identify or develop an incentive for research collaboration on food insecurity issues, and share with relevant faculty and/or staff.

**Best Practice**: Faculty and/or staff research, scholarship and/or creative works occur in multiple disciplines with interdisciplinary collaboration.
Recommendations for Next Steps

The university’s Strategic Plan presents a framework for progress in its mission to (removed to maintain confidentiality). The following recommendations align the evidence-based findings of the college student food insecurity prevalence survey and C-FAST with the goals and objectives of the university’s strategic plan.

University Goal – (removed to maintain confidentiality)
Strategic Goal: (removed to maintain confidentiality)

Evidence-Based Recommendation for Next Step
Establish an experiential learning curriculum in hunger/food insecurity for undergraduate and/or graduate students. This can begin with the modification of an existing course to address food insecurity in its course content. Over time, efforts can progress to develop a full course and even an undergraduate minor or graduate certificate.

Example: The Auburn University Hunger Studies Minor emphasizes problem-based learning to engage students representing every discipline – from agriculture to marketing, from finance to design – to apply their major studies in cross-disciplinary classes and interactive coursework to study and address the causes, consequences and responses to hunger. The Hunger Solutions Institute at Auburn University will openly share curriculum information to support the adaptation of a Hunger Studies course and/or minor on new campuses. See appendix for more information.

University Goals – (removed to maintain confidentiality)
Strategic Goal: (removed to maintain confidentiality)
Strategic Goal: (removed to maintain confidentiality)
University Goal – (removed to maintain confidentiality), cont.

Evidence-Based Recommendation for Next Step

Build and strengthen campus relationships through the establishment of a campus food security coalition. Identify faculty, staff and administrators with influence and/or interest in food security issues, and invite them to form a coalition on food security and basic needs. Once a core group has been identified, determine an appropriate route to formalize the coalition within the university’s framework to establish and strengthen the influence of the coalition. The development and implementation of a campus action plan can serve as an excellent opportunity to establish member commitment and engagement.

Example: The University of North Alabama (UNA) established a diverse and active coalition to address campus basic needs. Members include representatives from the Office of Student Engagement, the Campus Food Pantry, Dining Services, Housing and Residence Life, Financial Aid, Disability Support Services, Military and Veterans’ Services, faculty, a community member, a recent alumnus and a student resident advisor. Regular action items for coalition members have promoted commitment and sustained engagement from members. See appendix for more information.

University Goal – (removed to maintain confidentiality)

Strategic Goal: (removed to maintain confidentiality)

Evidence-Based Recommendation for Next Step

Encourage and/or incentivize student-faculty research collaboration on hunger/food insecurity issues. This research could follow up on student food insecurity issues identified in this report or expand locally, statewide, nationwide or globally. Aim to establish annual support for continued research collaborations.

Example: The Deaton Scholars Program (DSP) engages students from every college and discipline at the University of Missouri in the fight against global poverty and hunger. As DSP participants, students join diverse teams and delve head-first into creative problem solving. With the help of program leaders, students gain hands-on experience proposing, funding and implementing their own solutions. See appendix for information.
Appendix of Resources

Experiential Learning Curriculum (Hunger Studies Course and Minor)
Dr. Alicia Powers
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Enhancing Faculty Awareness and Support (UNA Red Folder)
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Food Security Research Opportunities (Deaton Scholars Program)
Summer LaRose
Deaton Scholars Program Director
Brady and Anne Deaton Institute for University Leadership in International Development
University of Missouri
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The Hunger Solutions Institute was established by the College of Human Sciences and the Alabama Agricultural Experiment Station at Auburn University to further Auburn’s nationally recognized efforts in food security domestically and globally. Auburn University is an equal opportunity educational institution/employer. hungrysolutionsinstitute.org