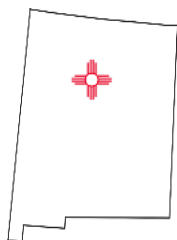


Redefining Support: Addressing Food Insecurity with Tech

University of New Mexico's Basic Needs Project and LoboEats App

BACKGROUND



University of New Mexico (UNM)

Albuquerque, New Mexico

- Flagship state institution
- Hispanic-serving designation (HSI)
- 24,507 students (15,329 undergraduates)
- 70% of students are BILPOC
- 9% Native students—highest # at an R1 university in the nation

The state of New Mexico has the **second-highest rate of food insecurity in the country**, according to the U.S. Department of Agriculture. Despite this, there has been a lack of comprehensive knowledge regarding the food security status of students at the UNM and other colleges and universities throughout the state. Until now, insights into whether these students have reliable access to nutritious food while engaged in their studies were predominantly based on anecdotal evidence. Food is at the foundation of human well-being and mental health. As a country, we have yet to put in place policies and practices that can support students and people more broadly when they lack a basic need. In higher education we know its' effects on students' mental health and college progression and more recently its effects on our colleagues, especially adjunct faculty and staff.

The UNM Basic Needs Project (UNM BP) suspected that the issue of food security extended beyond the student population impacting staff and faculty as well. For the statewide study, they invited everyone working in colleges and universities to participate in their survey.



AT A GLANCE

CHALLENGES

- Lack of data on food insecurity among campus groups
- Known food waste on campus
- Limitations of traditional assistance programs

SOLUTIONS

- Conduct a comprehensive food and housing insecurity survey
- Cross-institution collaboration
- App development to support food access and notification
- State policy advocacy

THE BASIC NEEDS SURVEY

Food and Housing Insecurity



~10,000
students surveyed
across 27 institutions

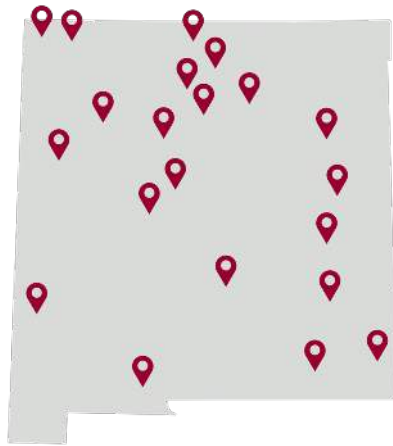
17 two-year institutions

7 four-year institutions

3 tribal institutions

Institutions

- Central New Mexico Community College
- Clovis Community College
- Diné College
- Don Ana Community College
- Eastern New Mexico University
 - Portales
 - Roswell
 - Ruidoso
- Institute of American Indian Arts
- Luna Community College
- Mesalands Community College
- Navajo Technical University, Crownpoint
- New Mexico Highlands University
- New Mexico Junior College
- New Mexico Institute of Mining & Technology
- Northern New Mexico College
- New Mexico State University
 - Alamogordo
 - Grants
 - Las Cruces
- San Juan College
- Santa Fe Community College
- Southeast New Mexico College
- University of New Mexico
 - Albuquerque
 - Gallup
 - Los Alamos
 - Taos
 - Valencia
- Western New Mexico University



In 2020, for the first time and after numerous requests from [the HOPE Center](#) and other researchers and practitioners, the U.S. government [asked students](#) about their food insecurity, giving federal policymakers access to national data. Yet the absence of state or institutional data left many colleges, including UNM, with little information to advocate for and suggest changes in policy and practice.

Around the same time, two UNM faculty members in the Honors College wanted to find out what students were experiencing at UNM since New Mexico is a highly food-insecure state.

Using the #RealCollege survey guide, the UNM BNP designed a basic needs survey. They deployed it twice at UNM in 2020 and 2021 and then they were invited to do a statewide study in 2023.

More than 13,837 people across New Mexico, including **nearly 10,000 students**, and **nearly 4,000 faculty and staff**, participated in the study across the 27 participating institutions.



“Being a father to small children makes me feel unworthy not having enough money to ensure healthy meals for my family even though I have a full-time job and attend school full-time. The rising prices for utilities, housing, and food make it almost impossible to sustain life.”

- Student survey respondent

The survey findings weren’t surprising but were unsettling; in the last 12 months, 1 in 3 faculty and staff and 58% of students were food insecure. The causes are numerous and systemic, as higher education often over-relies on adjunct faculty. Nationwide, students often find themselves forced to discontinue their studies due to increasing out-of-pocket costs (textbooks, campus holds and fees, food, housing, and childcare), the complexity of Supplemental Nutrition Assistance Program (SNAP) eligibility, and for many, their aid, especially Pell Grants, aren’t enough.

In 2023, the [Healthy Minds survey](#) revealed that over 60% of college students nationwide are experiencing at least one mental health issue. At UNM, among the food-insecure student population, anxiety affects 36%, and depression 38%. Notably, 22% of UNM's faculty and staff also face mental health challenges. UNM researchers, using comprehensive data-gathering and analysis, have deepened their understanding of food insecurity's scope. This integration of mental health statistics highlights the necessity for a unified institutional response that addresses the needs of students, faculty, and staff alike.

58%

of students in New Mexico are food insecure, 2023

1 in 3

Faculty and staff in New Mexico are food insecure, 2023

38%

Of food insecure students in New Mexico suffer from depression

Data source: <https://basicneeds.unm.edu/nm-higher-ed-basic-needs-report.pdf>

“Without having eaten a decent meal in the past few days, I failed one of my final exams and couldn't show up to take another because I also could not afford gas.”

- Student survey respondent



DEVELOPING A SOLUTION

Faculty and Students Raise Concerns About Campus Waste and Food Insecurity

Student-Pitched Food Recovery App Aims to Address Dual Food Issues

Food waste is the most common material Americans incinerate and send to dumps, according to the Environmental Protection Agency (EPA). With 22 million pounds annual food waste among colleges and universities, many schools are looking for innovative solutions to address local and regional needs. While [some colleges](#) have opted to make compost from their campus waste to support local agriculture, the UNM team needed to identify ways to supplement students' basic food needs, feeding hungry people, as stated in the EPA Food Recovery Hierarchy, or UNM's terms, feeding hungry Lobos.

[Dr. Sarita Cargas](#), a basic needs researcher and associate professor at UNM, recognized the connection between food waste on campus and the insights on the prevalence of food insecurity on college campuses in New Mexico. She had an idea for an app she took to her project-based undergraduate class, "The Human Rights of College Students."

A group of students in the class chose to work on the app, led by the technical skills of Biraj Siwal, a junior at the time and a computer science major. With the input of three students, the team informed and refined the design and development of the **LoboEats** app, named after the school's mascot, the Lobo, meaning wolf.



[The Wasted Food Scale](#) (2024), formerly the EPA Food Recovery Hierarchy

As the students prepared the app for launch, the IT team at UNM connected with student developers to significantly enhance the mobile platform by incorporating a suite of new features and fortifying the existing framework to elevate security, accessibility, and reliability. They adeptly integrated a cloud infrastructure that enables the delivery of push notifications directly to users' mobile devices. In addition, they established a centralized remote database to efficiently manage food items inventory. By integrating the application with UNM's single-sign-on authentication system, they streamlined the login process, allowing users to access the application with their official UNM credentials. The team undertook a meticulous refactoring of the code to align with the industry's best practices, coupled with a thoughtful revision of the user interface and overall usability to enrich the user experience.

These strategic enhancements have not only tailored the application to meet the dynamic needs of its users but have also positioned UNM IT to provide sustained, long-term support for the platform.

The app was launched to the campus community in the spring of 2024 through the efforts of a cross-collaborative team and became part of the university's strategic plan. It was immediately recognized for its alignment with UNM's research agenda of addressing important issues within the state through innovative means.

In recognition of its innovation in development, the LoboEats app was selected as the winner of the 9th Annual UNM App Content for its dual approach to addressing food waste and feeding hungry UNM community members.

A Campus Tech Solution That Helps Humans and Reinforces Earth Citizenry

Through a rare faculty, student, and staff collaboration UNM launched the LoboEats app at the main campus. Although the app is only available at UNM's main campus, the team hopes to provide it to other colleges so they can adapt it at little to no cost.



Food App Team & Campus Collaborators

- Information Technology
- Food Service Staff
- Institutional Support Services
- Faculty and students, Honors College
- Computer Science Department

The app is available for use on Android and iPhones.

LoboEats Food App Key Features

- Accessible to UNM students, faculty, and staff
- All departments and recognized campus organizations can post available food
- All food adheres to a 20-minute window to ensure food safety standards
- Offers dietary notes (tags) to ensure users can safely consume the food provided
- Location address and a link to directions are provided to ensure ease of access

FOOD APP MEETING AN UNMET BASIC (TECH) NEED

Although over 800 colleges report having an on-campus food pantry, most cause students to endure social discomfort in accessing resources, lack information on how to use or what's available, and have inconvenient hours. Alongside an accessible pantry, colleges should devise a food recovery and sharing system to address campus waste, a contributor to climate concerns, a topic students want to address now alongside human rights issues such as food insecurity.

The success of this app creation was due to the combined efforts of the office of UNM Food, UNM IT, faculty and students.



WORK ALONGSIDE ESTABLISHED NORMS

Students are more comfortable and used to grabbing food after an ended campus event than from an established pantry.

Article 25 of the United Nations Universal Declaration of Human Rights lists adequate access to food as a basic human right.

481

*downloads of the app
since Feb '23 launch*

267+

*lbs. of campus food
recovered < month*

47%

*conversion rate, compared to
ed-tech avg. of 33%*



"As someone who has experienced a lot of food insecurity growing up and even in college, I actually dropped out of college because of food and basic needs issues. It's important to get numbers and data on why this is happening. It feels impossible to succeed when you're struggling with this. You can't study, you can't focus, or do anything."

- UNM undergraduate student

FEDERAL AND STATE POLICY PRIORITIES

To meet the basic needs of college students and campus communities, college and university leaders must know what they are facing and make systemic shifts in how they devise and create support. Faculty, staff, and student leaders who reside or work within impacted communities know having a firm grasp of the issues, relationships, data, and knowledge is crucial to developing innovative solutions that increase connection, community, and agency among those they are looking to serve. UNM is working within and across institutions and the state to address food insecurity. CCA is working nationally to support states, systems, and campuses in meeting the basic needs of students working toward college completion.

CCA'S BASIC NEED POLICY RECOMMENDATIONS

To address basic needs support of postsecondary students nationwide, increasing their chance of college completion and economic opportunity, CCA encourages state and Federal policymakers to:

- ❑ **Expand SNAP benefits and support the EATS Act**, ensuring students can focus on their learning. Urge House and Senate leaders to develop a Farm Bill to protect and strengthen SNAP.
- ❑ **Increase funding for college completion**, expand Basic Needs Support, and ensure students can access support services to graduate on time.
- ❑ **Fund recurring appropriation** to support a college's ability to address basic needs directly, including funds for direct service and college personnel.



“Together with the New Mexico Higher Education Department, we are forming these partnerships to fill those gaps that will make New Mexico a national leader in addressing college hunger.”

*- Dr. Sarita Cargas, Associate Professor of Human Rights
Director of the NM Basic Needs Consortium, Co-Creator LoboEats*

For more information about the UNM Basic Needs Consortium, visit www.basicneeds.unm.edu.

JOIN THE MOVEMENT. CONNECT WITH US TODAY.