

Feeding our food banks: ASU helps pantries better serve the state

A student-designed tool will dramatically improve how Arizona's largest food banks fight hunger

By Dolores Tropiano, ASU News
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Leaders from the state's largest food banks gathered in a small, packed room at St. Mary's Food Bank on Feb. 9 to learn about a tool that will dramatically expand their capacity to fight hunger throughout Arizona.

Created through a partnership between Arizona State University and St. Mary's Food Bank, the Arizona Food Insecurity Dashboard is a geospatial and demographic tool that will help food banks track areas where food insecurity¹ is most concentrated and make more informed, data-driven decisions about how to allocate scarce resources more effectively.

The workshop was hosted by St. Mary's and sponsored by the Arizona Board of Regents.

According to [Feeding America](#), about 1,067,000 Arizonans, or 14.4% of the population, experienced food insecurity in 2023. That's an increase from 10% in 2022, driven by lingering pandemic effects, reductions in federal nutrition assistance and inflation, according to the organization.

Staff from St. Mary's Food Bank, United Food Bank, Community Food Bank of Southern Arizona and Yuma Community Food Bank took part in the training. Additional partners, including St. Vincent de Paul, were also there.

"The training represents a major coordination effort among the food bank networks and ASU to fight food insecurity in the state," said [Connor Sheehan](#), associate professor in the [T. Denny Sanford School of Social and Family Dynamics](#) and co-founder of the [Data Devils Lab](#).

Sheehan is a faculty co-lead on the project, alongside fellow Data Devils co-founder [Aaron Flores](#), an assistant professor in the [School of Geographical Sciences and Urban Planning](#).

ASU graduate and undergraduate students in the Data Devils Lab helped lead the training, demonstrating how to use the dashboard's features and guiding participants through hands-on activities to identify insights for their service areas.

“Food banks already work hard to reach the communities that need them,” Sheehan said. “This tool gives them a way to quickly visualize where gaps might exist, direct mobile pantries, consider new distribution sites or tailor outreach to specific populations.

“Over time, that potentially means more families reached and less waste. It also gives food banks stronger empirical evidence for grant applications and advocacy efforts.”

“It’s going to level up our game,” said Jessica Herbert, public policy manager for the Arizona Food Bank Network, who was among the 25 people who attended the training.

The dashboard brings together multiple data sources, including census demographics, food insecurity estimates, SNAP participation rates, vehicle access and facts about the neighborhood, such as the number of older adults or children.

“Instead of pulling disparate spreadsheets, emailing back and forth with partners or searching multiple websites, they can quickly answer questions like: ‘Where might we be underserving? Where could a new distribution site make sense? How can we tailor our methods to the needs of specific neighborhoods?’” Sheehan said.

“You would implement a program for older adults differently than one for children, or one for an area with low vehicle access, and the dashboard lets them see that almost instantly.”

The dashboard can also highlight how food shortages affect communities differently across Arizona — particularly in rural and Indigenous areas, such as the Navajo Nation in northeastern Arizona.

By layering tribal land data with other factors like vehicle ownership, it can point out challenges residents face in accessing food and help guide resources to where they are needed most.

“The main thing for us is that it is going beyond food insecurity,” said Marcos Gaucin, chief programs officer at St. Mary’s Food Bank, which serves about 300,000 meals daily across Arizona.

Gaucin said prior to now, the food bank only had information on the county and zip codes. “It didn’t go beyond that,” he said.

The Data Devils Lab partners ASU students with Arizona nonprofits for data analysis projects for mutual benefit. Students in the program get opportunities to apply what they’re learning in the classroom to real-world challenges, and nonprofits are able to benefit from their insights and contributions.

“Universities have a social contract to do more than publish findings,” said [Christina Ngo](#), assistant vice president for social embeddedness at ASU, who helped coordinate the workshop. “They have an obligation to be useful to the communities that sustain them.”

ASU student Alexi Vogel played a major role in building the dashboard and conducting the workshop². It took nearly 18 months to create the geospatial tool.

“I hope it will inspire them to think about new concepts and how to make data-driven decisions,” said Vogel, a graduate student studying geographic information science in the School of Geographical Sciences and Urban Planning and a community engagement spatial data analyst

within ASU's [Office of University Affairs](#).

As for her own participation?

"It is so rewarding to feel that I am making a difference in the community."

This story originally appeared on [ASU News](#).

¹ Food insecurity is when people don't have enough to eat and don't know where their next meal will come from, according to the USDA.

² Students Sophia Ruger and Sofia Ricci also participated in the workshop.

Main image



St. Mary's Food Bank employees Lauren Tomlinson-Handwerk (left), a senior program manager, and Michele Eaves, a mobile distribution supervisor, learn to use a new ASU-created data analytics tool that will help integrate geospatial and demographic data to help community food banks better serve their residents. Photo by Charlie Leight/ASU News

Text image(s)



Marcos Gaucin, St. Mary's Food Bank chief programs officer, speaks during the dashboard training workshop where participants from Arizona's largest food banks learned how to use an ASU-created data analytics tool that will help them fight food insecurity. Photo by Charlie Leight/ASU News



Assistant Professor Aaron Flores, with the School of Geographical Sciences and Urban Planning, leads a section of the workshop. Photo by Charlie Leight/ASU News



St. Mary's Food Bank partner advocacy supervisor Ashley Rojas (left) listens as Alexi Vogel, a graduate student in the School of Geographical Sciences and Urban Planning, demonstrates how to navigate a new ASU-designed analytics dashboard. Photo by Charlie Leight/ASU News