MCURC Collective Impact Initiative

Progress Report 2024

5 Years of Impact & Insights

MCURC
THE MENUS OF CHANGE
UNIVERSITY RESEARCH COLLABORATIVE

Stanford
FOOD INSTITUTE
Residential & Dining Enterprises

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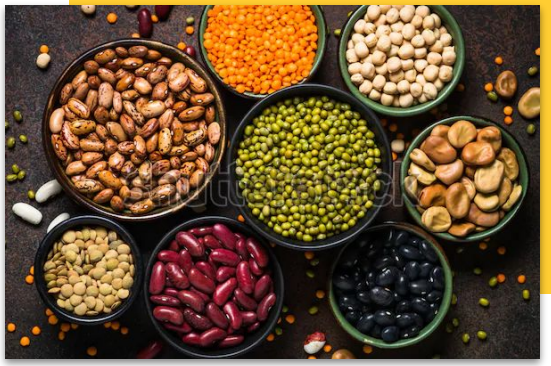
The Menus of Change University Research Collaborative (MCURC) is a global network of 80+ colleges and universities that are accelerating efforts to move diners toward healthier, more sustainable, delicious food choices.

MCURC is co-founded and jointly led by Stanford University Residential & Dining Enterprises, Stanford Prevention Research Center, and The Culinary Institute of America (CIA) as an extension of the groundbreaking Menus of Change initiative presented by the CIA and Harvard T.H. Chan School of Public Health, Department of Nutrition.

Collective Impact Overview



MCURC Collective Impact (CI) is a strategic initiative of **data collection and impact analysis** that empowers members by enhancing the understanding of their institutions' protein portfolios and the collective impact of the MCURC's combined protein purchases. The initiative is led by the **R&DE Stanford Food Institute (SFI),** whose experts collect, analyze, and communicate findings annually.

Protein has been determined by the Menus of Change initiative and related platforms to be the **single most important area of change** with respect to advancing healthier, more sustainable menus.

The opportunities for reimagining our institutions' protein portfolios translate to **tremendous potential for collective impact** across the MCURC. Some schools go beyond protein to provide data on their total food purchases, which get reflected in the individualized reports each institution receives from SFI This *MCURC Collective Impact Progress Report* reflects only protein purchases, however, because many institutions do not have the capacity to collect data for every category of food purchased. And, importantly, the data is clear that protein purchases reflect the highest areas of opportunity given their outsize impact on both human and planetary health.

Our Goals

- Understand the scale of the health and environmental impact of our collective purchases.
- Establish metrics and collective targets to measure that impact.
- Test, iterate, and share solutions to accelerate progress and inspire other organizations to take similar actions to reduce food-related greenhouse gas emissions.
- Create annual reports and case studies to highlight successes of member institutions that can be replicated by other institutions and other foodservice operations.

Introduction

This report highlights key learnings, strategies, and success stories from the first five years of the MCURC Collective Impact initiative, as we work collectively towards our ambitious target of a 40% reduction in food-related greenhouse-gas (GHG) emissions by 2030.

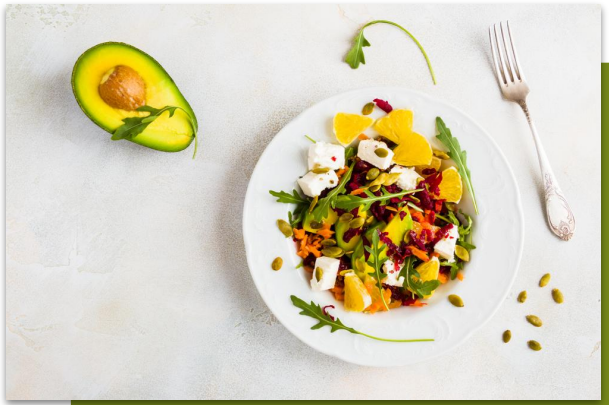
It was developed thanks to the invaluable input submitted by the nearly 40 institutions who have participated in the initiative year over year.

Altogether, these institutions' combined food purchases amount to over 93 million pounds of food. **Since the initiative began in 2019, we have reduced our collective food-related emissions by 23%.**

This 23% reduction equates to 38 million tons of CO2 equivalent* -- if all 70 MCURC universities achieved a 23% reduction, the potential impact could equal 81 million kg of CO2, comparable to avoiding 129,000 cross-country flights, removing 17,680 cars from the road for a year, or the carbon emissions of 1,700 U.S. households for a year.

*Based on 2023 cohort's data

Introduction



This reduction also results in sizable co-benefits for human health, diner satisfaction, or cost savings, and menu innovations.

So, how exactly are we achieving these reductions?

- What is working to move the needle most?
- What's not working as well as we expected?
- What are the biggest pain points of shifting to healthier, more sustainable, more plant-forward food purchases, and what aspects of making these shifts have been easier than others?

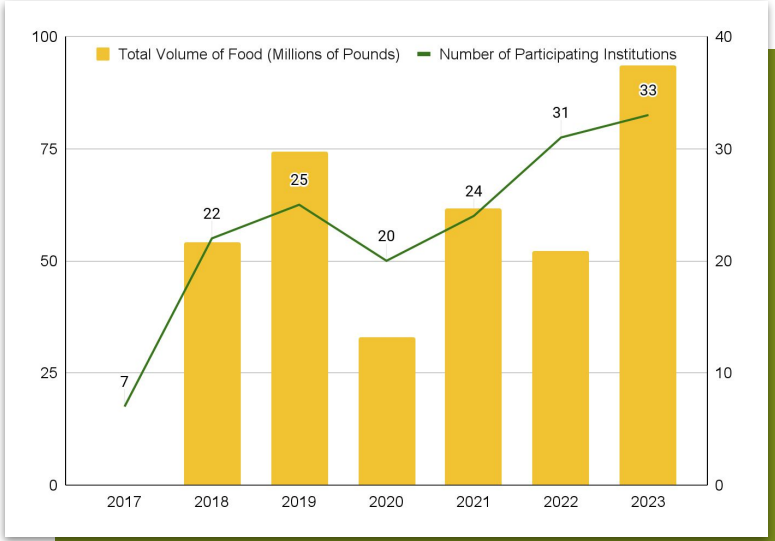
This report seeks to answer these critical questions, offering a framework for understanding our progress and accelerating our journey towards meeting the collective target.

Collective Impact Participation
A Growing Movement

Over the past several years, there has been a remarkable increase in participation and engagement among universities committed to reducing their greenhouse gas (GHG) emissions through sustainable food procurement. Starting with a pilot cohort in 2017, the initiative has grown to include 33 universities, demonstrating a strong collective dedication to environmental stewardship within higher education.

This growth is reflected in the volume of food analyzed. In 2019, the total volume of protein purchases examined was about 74 million pounds. By 2023, this figure rose to over 93 million pounds. This increase not only highlights the expanding scope of the initiative but also underscores the escalating impact these universities have on promoting sustainable food systems.

The heightened engagement facilitates a robust exchange of best practices and collaborative research efforts. Universities are not only altering their procurement strategies but are also influencing supply chains, and working with their suppliers to adopt more sustainable practices.



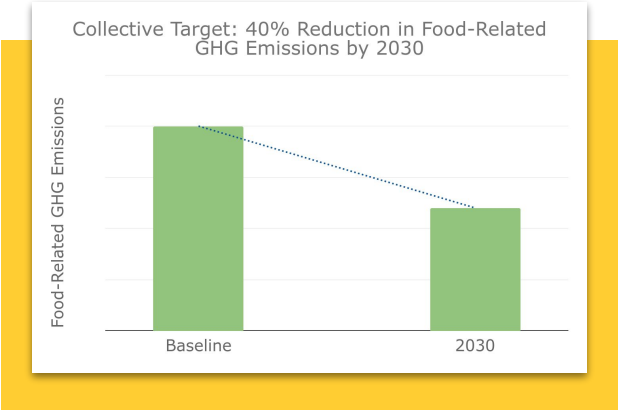
Thank You to Our 33 Participating Institutions in 2023!

Our Collective Target

MCURC has set a **collective target of a 40% reduction in food-related greenhouse gas emissions (GHG) from protein purchases by 2030,** aggregated across all participating institutions.

We aim to achieve this goal through changes in the ratios of various protein sources in the collective protein portfolio, aligning with the following Menus of Change Principles:

- Make Whole, Intact Grains the New Norm
- Move Legumes and Nuts to the Center of the Plate
- Serve More Kinds of Seafood, More Often
- Use Poultry and Eggs in Moderation
- Serve Less Red Meat, Less Often
- Reimagine Dairy in a Supporting Role



How We Measure Impact

Intensity Metric: Lbs of CO2 per lb of food

MCURC uses an “intensity metric” to represent how GHG-intensive food purchases are, regardless of the variations in the amount of food or number of diners served.

Even in years where food operations have grown or reduced substantially, a downward trend in this metric indicates progress towards less greenhouse-gas intensive food purchases overall.

This metric is included in the individual reports provided to each institution so they can track progress over time, even as their number of diners increases or decreases.

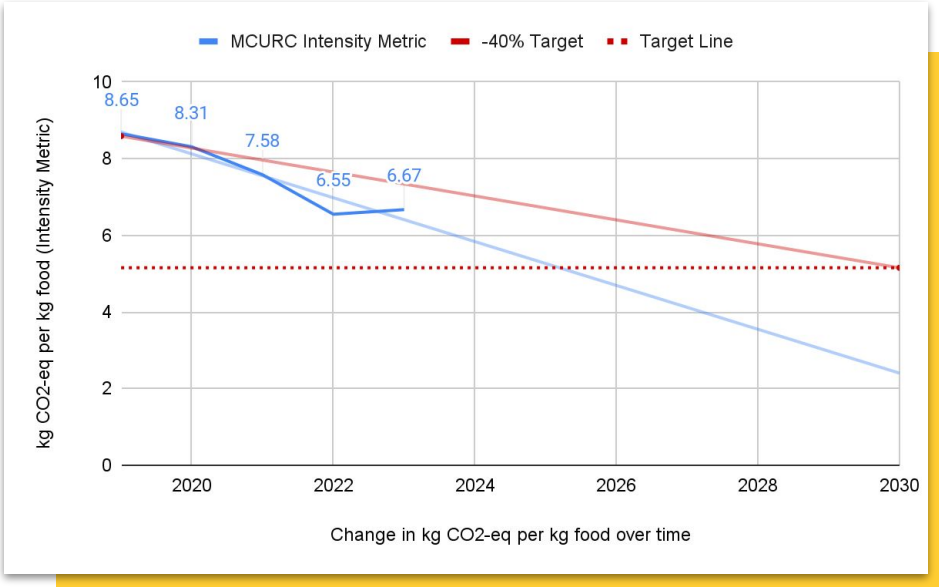
Intensity Metric =

$$\frac{\text{Total food-related GHG emissions}}{\text{Total pounds of food purchased}}$$

Progress to Date

In 2023, we extended our collective target from 25% to a 40% reduction by 2030, to more closely align with the global recommendation to shift toward the EAT-*Lancet* Planetary Health Diet.

Between 2019-2023, the MCURC's cohort of universities has tracked over 300 million pounds of protein purchases and saw a collective **23% decrease** in greenhouse gas emissions per kilogram of food purchased among participating institutions. This represents almost 60% progress toward its long-term target over just five years—and across 33 institutions.



Amplifying the Impact
of Our Collective Effort

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The 33 universities have **collectively reduced their CO_2 emissions by approximately 38.3 million kilograms (84.5 million pounds) from their baselines.** This data provides a substantial insight into the collective's impact, but it's important to consider the broader potential when extrapolating these efforts to the entire group of **70 universities** involved in the Collaborative. Together, we serve approximately **4 million meals per day**, representing a significant opportunity to influence sustainable food procurement practices and entire supply chains.

Potential Impact if All MCURC Members Reduced Emissions by 23%

179 million lbs of CO_2 reduction (81 million kg)

129,000 round trips
between NY and SF

17,680 cars
taken off the road for a year

1,700 U.S. households
emissions for a year

Process & Implementation Learnings

Over the past five years of collecting and analyzing purchasing data from across the MCURC, we have refined our understanding of what it means to evaluate collective impact, allowing us to reframe how we approach this process in support of our goals.

KEY LEARNINGS

- Allow for flexibility in data collection.
- Expect trends in the data to fluctuate.
- Empower each individual organization while focusing on collective progress.
- Point the path forward.

Key Learnings

Allow for flexibility in data collection

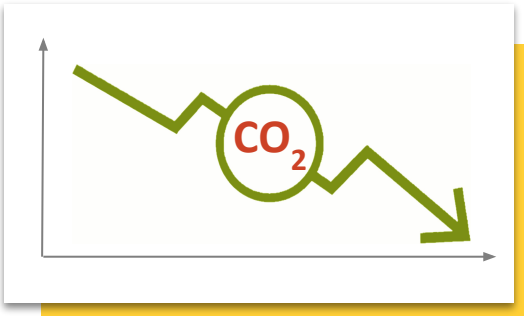
In recent years, we have seen an increase in awareness and investment in Scope 3 emissions throughout the foodservice and university sectors, which has meant more institutions expressing interest in the Collective Impact Initiative. As new members have joined, participating institutions submit data at different stages of their own progress toward long-term GHG reduction. We also have seen how participation can fluctuate year to year. For these reasons, we realized the need to recalculate the baseline every year to account for these changes in participation.

While it may seem tempting to focus on cohorts of institutions that have been involved for a long time and therefore may have achieved greater progress, when it comes to collective impact, our ethos is that it's truly the sum of our parts that matters. We are only moving as rapidly or as gradually as the combination of institutions that chooses to participate. And regardless, we are moving in the right direction, together, at scale, and learning and course-correcting along the way.

Ultimately, this means we must re-evaluate our collective data and progress each year, but this approach allows the most flexibility for our members, which is essential to maintaining the collective spirit of this initiative.

Key Learnings

Expect trends in the data to fluctuate



As we anticipated in our *Early Learnings Report* in 2020, COVID-19 had dramatic impacts on food purchases. Since then, recent spikes in food costs have presented tremendous challenges and forced menu changes for almost every university. Then there's the perennial reality that sometimes student response to menu shifts can be worse than anticipated.

Big picture, what matters is that we are heading in the right direction and making swift strides even amid these challenges. That said, we have seen that variable conditions can have substantial effects on purchasing data year to year, and it's unlikely that reductions in GHG emissions over time will be smooth or consistent. These changes are typically temporary, so it's most important to keep focused on the long view.

In addition, these realities further highlight the importance of our intensity metric (lbs of CO2 per lb of food), in order to continue to monitor progress even as the volume of food purchases rises and falls.

Key Learnings

Empower each individual organization while focusing on collective progress

"Reporting on individual progress, in addition to collective progress, helps institutionalize this initiative on each campus, even as new people fill leadership roles. This can prevent a situation where participating in Collective Impact is just a passion project of a single team member, which is a risk posed by any sustainability initiative with a long-term goal."

–Sophie Egan, MCURC Co-Director

Participants continue to emphasize the value of receiving data insights both at the institutional level and across the collaborative.

With their individual impact analysis, participants can monitor and evaluate their institution's progress alongside insights showing how they are tracking in comparison to the collective MCURC data. Most institutions do not have the capacity or the technical expertise to conduct these analyses themselves, so these reports are an excellent incentive to participate.

Furthermore, the fact that this initiative does not require a public commitment has greatly de-risked participation and lowered the barrier to entry for schools that otherwise wouldn't be in a position to contribute to reducing food-related emissions, due to lack of political will or leadership support. For institutions across the spectrum, there is also great appeal in the opportunity to contribute to something larger than their one campus.

Key Learnings

Point the path forward

Change in protein purchasing needed to reach the 25% reduction target

Beef	↓ 15%	Seafood	↑ 30%
Poultry	↓ 15%	Legumes	↑ 350%
Pork	↓ 10%	Nuts/Seeds	↑ 266%
Dairy	↓ 30%	Grains	↑ 35%
Eggs	↓ 50%		

The example chart here, which we introduced to members in 2022, triggered a major "Aha!" moment for MCURC members on how to achieve our goal, and was the first time we had made the Collective Impact trajectory so tangible.

So often the question arises: Is this even possible? Can we pull it off? And what would our menu look like if we did?

There is a huge unlock when we model scenarios that demonstrate clearly what shifts need to occur: What foods to buy more or less of; and what impact simple swaps and replacements on the menu can have.

At the same time, we are sure to remind members that there are many different possible paths forward, and only the individual institution will know what's right for them. The key takeaway is less about checking every box to reach the specific numerical targets, and more about the directional changes that will help move the needle.

Lastly, every few years, we survey participating institutions to identify the programs and strategies that have successfully shifted their protein portfolios. This enables us to define best practices, crowdsource solutions, and accelerate impact across the MCURC toward our collective greenhouse-gas reduction target.

Key Learnings

Point the path forward

Over the years, we've explored and analyzed the data through other lenses, as well. For example, in 2023 Dr. Jackie Bertoldo conducted a study with a handful of member institutions to see what the projected results would be for diet quality, and in doing so demonstrated that we can achieve substantial reductions in emissions *and* improve the nutritional quality of foods we buy by creating these plant-forward shifts. (Check out the full paper — our first to be published in an academic journal featuring the Collective Impact Initiative.)

These scenario modeling activities do more than elevate institutions that are reaching considerable reductions in their food-related emissions, they provide real-world inspiration—not to prescribe how an institution should approach their menu or purchases but to show that the end goal is in fact achievable.

2024 Member Survey - What initiatives are you actively implementing to shift your protein portfolios?

Most Popular - *Used by more than 75% of participants*

- New plant-forward menu concepts or dining platforms
- Efforts to reduce food waste
- New plant-forward ingredients on the menu
- Greater variety of plant-forward menu items
- Nutrition or sustainability education in dining halls

Somewhat Popular - *Used by 50% to 75%*

- Serving animal proteins in smaller portions
- Plant-based meat substitutes
- Marketing plant-forward dishes to customers
- Tastings or tasting tables
- Nutrition information or guidance at point of service
- Training culinary staff to prepare plant forward foods
- Placing dishes in more visible or highly trafficked areas

Moderately Popular - *Used by 25% to 50%*

- Blending animal protein with veg or other plant proteins
- Providing sustainability information or guidance
- Enhancing presentation or plating
- Using taste-focused labeling
- Reducing the number of meat-based menu items
- Chef specials or pop-ups
- Protein Flip to reduce proportion of meat in dishes
- “Meatless” days
- Menu engineering to reduce amount of meat diners take

Not Very Popular - *Used by less than 25%*

- Subsidizing or offering at lower cost than meat-based
- Incentives (e.g., coupons, rewards)

Operator Strategies & Insights

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In addition to the popular initiatives revealed in our survey, other themes emerged from our interviews with operators, from working with distributors to simplify tracking to operationalizing ways for foodservice staff to bring their own cultural connections to plant-based dishes to the table.

What's Working	What's Challenging
• Collaboration in procurement and distribution • Getting staff buy-in • Taking an experimental approach • Using data to make the meat shift • Leading with flavor	• Labeling items as "vegan" • Meat analogs • Perceived restrictions

What's Working:
Collaboration In Procurement & Distribution

Success in plant-forward food initiatives is significantly enhanced by close collaboration with procurement teams and distributors from the outset. Some schools have been able to streamline the reporting process by working directly with vendors to ensure that they know upfront what information is needed and that they track data in a preferred format, such as pounds instead of cases.

The **University of Reading** leveraged its relationship with Sysco to source high-quality chickpeas at scale, ultimately making them available to the wider hospitality market in the U.K. Meanwhile, **University of Massachusetts Lowell** noted that its farm-to-table menus not only please staff and customers, but are great for building relationships with local farmers and companies.

Spotlight on - University Of Michigan

The University of Michigan's Sustainable Procurement Contract Language project began as an initiative with a campus sustainability class, where students developed contract language for the university's top five food spends: meat, bread, dairy, coffee, and produce.

Success led to a partnership with the business school, where graduate students conducted further research. In its third phase, the project reviewed sustainability certifications to update decade-old purchasing guidelines.

Now in its fourth phase, the project is piloting this language with the procurement team, aiming to adopt it campuswide and ensure vendors and distributors align with the university's carbon neutrality goals.

> “We can do all of this great work on our campus, but if we don’t know what our vendors are doing, and they’re not holding their distributors accountable, then how do we get to carbon neutral?”
>
> Keith Soster,
> Director of Sustainability,
> University of Michigan

What's Working:
Getting Buy-In

Beyond the fundamental principle that an initiative with buy-in is more likely to succeed and endure than a mandate, participants have seen creativity, authenticity, and enthusiasm flourish when staff and students are a part of the solution.

At **Ohio University,** the football team has been one of the culinary team's biggest advocates and partners for promoting plant-forward meals, including through social media videos in which chefs and players cook side by side.

Cornell University is engaging and empowering its staff through education, including providing three full-day culinary trainings focused solely on whole, plant-based ingredients like lentils, tofu, and mushrooms.

Spotlight on - University Of North Texas

Getting Buy-In

> "If we're going to do things that are culturally diverse, we need to be authentic and tell the story fully, so that people understand why we're making the food we're making and why it is important to us."
>
> Matthew Ward,
> Executive Chef of Residential Dining,
> UNT Dining Services

The nation's first all-vegan dining hall is Mean Greens Cafe at the **University of North Texas**. It has continued to evolve since it opened in 2011, adding themed menus that rotate throughout the week, featuring comfort foods, Asian, Indian, Mediterranean, Italian, and Tex-Mex cuisines. The innovation is driven by its diverse, largely student-based staff, who bring their cultural traditions into menu planning and decor. Mean Greens also creatively reuses leftovers by crafting plant-based patties from surplus grains, beans, and other legumes.

What's Working:
Making Education Interactive

One of the benefits of being a member of the MCURC is seeing the diverse examples of creativity and innovation other institutions have adopted to make plant-forward eating not only more appealing but more integrated into customers' day-to-day lives.

At participating schools, that includes educating students on the food they're eating through chef action stations, themed events in the dining halls, and more.

At **Princeton University**, this education takes the form of a comprehensive plant-based experience program launching in the new school year for students, faculty, and staff. It will include education spanning nutrition, sustainability, culture, and ethics—and culminating in a 21-day experience highlighting plant-forward options across all operations at all meals.

> "Networking with other colleges and universities, learning more about their approaches, sharing challenges and successes—all have been beneficial to our participation."
>
> Kristi Boanga
> Menu Management & Support Services Administrator
> Kansas State University Housing & Dining Services

Spotlight on - Stanford University

> "Incorporating the teaching-training part is a great platform for communicating the plant-forward experience, whether through teaching students or our staff."
>
> Andrew Mayne,
> Senior Associate Director of Culinary Strategies and Plant-Forward Experience,
> R&DE Stanford Dining, Hospitality & Auxiliaries

As Sr. Assoc. Director of Culinary Strategies and Plant-Forward Experience at **Stanford**, Chef Andrew Mayne has a unique role within foodservice, and especially college and university dining. It goes beyond crafting creative, delicious, award-winning plant-based menus for dining halls, catered events, concessions, and retail. Andrew Mayne's charge includes the R&DE Teaching Kitchen, where he educates students and staff on the fundamentals of climate-smart cooking and food choices—*and* builds community with students who will become tomorrow's leaders, entrepreneurs, and consumers.

What's Working:
Taking an Experimental Approach

As with all menu development, landing on plant-forward menus that work has been a process of trial and error for the institutions we interviewed, and not every attempt succeeds.

Efforts to introduce plant-forward menus in catering faced challenges at one university where catering's older, more traditional demographic was less receptive to plant-based options than the captive audience of students in residential dining halls.

Some have found that meat analogs have not resonated with diners. Others note that labeling food as "vegan" or "meatless" can reduce its appeal when eaters feel they are being denied something, but have found better take rates with simple word shifts, like "Sustainable Mondays" or describing something as "suitable for vegans" rather than making it part of the dish's name.

Spotlight on - University Of Reading, UK

Taking an Experimental Approach

At the **University of Reading**, a science-led approach is driving the shift to plant-forward meals. By involving its academic community and embracing a living-lab approach, the dining department has turned skepticism into strong support.

For example, students taste-tested white bread made with pulses to enhance nutrition in a cross-disciplinary research project, while insights into food psychology have helped increase acceptance of vegan options through simple relabeling.

This approach has transformed dining services from a peripheral function to a central, community-oriented component of university life. Plus, partnering with professors and faculty has resulted in them becoming some of the dining program's most adamant supporters.

> "It's really easy to create a menu that's low carbon—I could do that tomorrow. The hard bit is creating the menu that people want to eat. That's what collective impact is focused on: It's the how."
>
> Matt Tebbit
> Director of Dining
> University of Reading

What's Working:
Using Data to Shift Toward Plants

Operators say the detailed data provided in the individual and aggregated reports from the Collective Impact initiative—and even the act itself of tracking protein purchases—are among its biggest benefits, offering actionable insights and benchmarks for progress. Having and sharing this information allows campus dining leaders to adjust menus in real time, find efficiencies, and engage guests and colleagues.

For instance, **Princeton University** is actively collecting weekly data for beef purchases to notice buying patterns and identify anomalies, which has led to awareness of overproduction with certain items.

The **University of Washington** was able to glean the cost benefit of expanding plant-based menu offerings.

And at **Tufts University**, Collective Impact data is a resource when engaging a student body very interested in issues of sustainability, especially around dining.

Spotlight on - UC San Diego

> "A lot of it really becomes an exchange: If we allow beef over here what's the impact, and then how can I support it [elsewhere]."
>
> Justin Martinez
> Business System Analyst Manager
> UC San Diego

The **University of California, San Diego** is using the data it's tracking for Collective Impact in real time to take a more targeted approach to its Beefless Mondays and reduce beef consumption in its dining halls.

Knowing it was harder to justify removing beef from certain concepts, such as its taco shop and burger joint, UCSD responded by evaluating the impact of reintroducing it.

By analyzing the data, it identified opportunities to offset beef offerings by substituting with options like shrimp or tofu in other dining concepts, such as its Asian wok station.

This exchange-based approach allows the university to balance student preferences while working toward its sustainability goals.

What's Working:
Leading With Flavor

All the universities we interviewed consistently emphasized that focusing on the fundamentals of cooking great food with outstanding flavors is essential for advancing plant-forward menus.

For example, the **University of California, San Diego's** "Rooted in Flavor" program, modeled after Menus of Change, challenges chefs to create delicious, plant-forward dishes without sacrificing taste.

Similarly, at the **University of North Texas,** the emphasis is on simplicity—following a recipe and ensuring each dish is prepared with care and attention to flavor, creating a strong first impression that keeps students coming back for more.

Spotlight on - Ohio University

At **Ohio University**, introducing more plant-forward menu items has been most successful by focusing on the fundamentals: using great ingredients, respecting them, and keeping dishes simple yet flavorful.

It starts with taking familiar dishes that students already know and love and creatively flipping them to be plant-based, while educating diners on the benefits.

Chef action stations, clear and consistent communication, and engaging directly with students help make plant-forward options more appealing, often surpassing traditional recipes in taste.

> "We're in meat and potatoes country. It's a lot of breaking the stigma of it, making it not so scary."
>
> Matt Paisley
> Senior Executive Chef
> Ohio University

Conclusion

We are a Collaborative, and this initiative is about *collective* impact, so if there's one thing we've learned above all, it's to **leverage the breadth of knowledge, innovation, and creativity of our members.**

The collective aspect of this initiative does not just refer to the aggregated data, but to the collaborative way in which the CI initiative has grown and developed. From the earliest stages of this initiative, we have **relied on feedback and input from members' diverse roles and perspectives**—always listening, testing, and iterating to reach our shared goals.

Conclusion

This **crowdsourced approach** has been instrumental in building on the momentum of the long-term effort and accelerating impact across the MCURC. We hope other organizations will take inspiration from this real-world demonstration of the Collective Impact model at scale. No doubt it can be applied to myriad other big challenges of shaping a healthier, more sustainable future of food.

Throughout the years-long process of shifting menus and purchasing to healthier, more sustainable, plant-forward options, it's essential to **stay focused on the long view and meet stakeholders where they are** in order to bring them along gradually. It's also important **not to get carbon tunnel** vision, instead keeping a careful eye on diet quality and nutrition, allergens, overall menu diversity, food costs, labor, animal welfare, and of course, student satisfaction.

Students are the reason we are here, after all, and dining halls are their homes; none of this work will be possible without ensuring that our menus delight and nourish them day after day.

Get Involved

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Inspired by what you've read? It's not too late to j**oin in this journey of mission-aligned purchasing power and peer learning.** If you are part of a campus dining program anywhere in the world, you are eligible to apply to be an MCURC member institution. Foodservice programs outside of higher education are also eligible as "ex officio members." This includes corporate foodservice programs feeding employees (Google, for example, is a participating member), government food programs (in the past we've had the U.S. Navy), healthcare foodservice, or even sports and entertainment programs (in the past we've also had the US Olympic Training Center). Please reach out to abby.fammartino@culinary.edu to learn more.

If you are already an MCURC member but haven't yet joined the Collective Impact Initiative, please reach out to gchallamel@stanford.edu to get involved

About the MCURC

The Menus of Change University Research Collaborative is a global network of colleges and universities using campus dining halls as living laboratories for behavior change. It is a collaboration of forward-thinking scholars, foodservice leaders, executive chefs, and administrators for colleges and universities who are accelerating efforts to move people toward healthier, more sustainable, and delicious foods using evidence-based research, education, and innovation.

The MCURC was co-founded and is jointly led by Stanford University, one of the world's leading research institutions—specifically Stanford Residential & Dining Enterprises and Stanford Prevention Research Center at Stanford Medical School—and The Culinary Institute of America (CIA), the world's premier culinary college.

It is a diverse, extensive, and inclusive network of 400+ members representing 80+ colleges and universities, ex officio organizations, and Research Collaborator organizations. Our work is made possible by the generous support of mission-aligned, industry-leading sponsor organizations. **The MCURC's vision is cultivating the long-term wellbeing of people and planet--one student, one meal at a time.** For more information, please visit **moccollaborative.org**

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