NYC Food Policy

Culinary Training Impact Report

Emissions Assessment and Program Deliverables

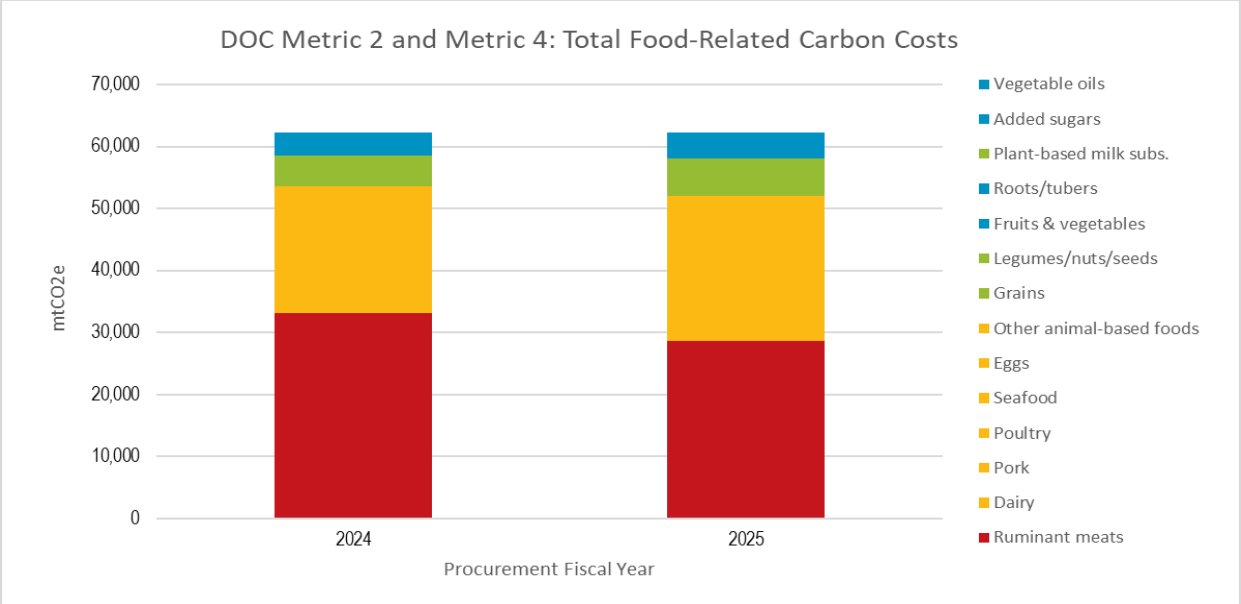
The Culinary Training Program was designed to advance three major goals: (1) reduce greenhouse gas emissions associated with city food procurement, (2) increase job satisfaction for Department of Corrections (DOC) and the Administration for Children's Services (ACS) Nutrition Services Division (NSD) employees, and (3) improve satisfaction with meals among both staff and the incarcerated population. The findings below synthesize procurement data, menu changes, and post-training survey results to assess progress toward each goal.

Goal 1 — Lower GHG Emissions of DOC and ACS Food Purchases

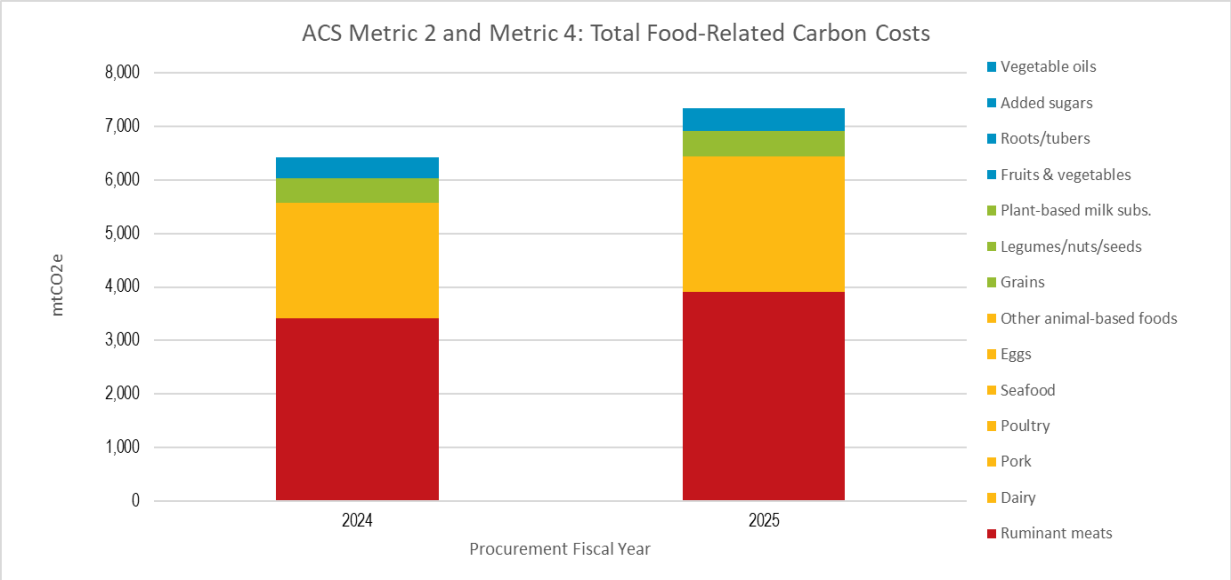
The program sought to shift agency procurement practices toward lower-emission foods by improving staff skills, expanding plant-forward culinary knowledge, and supporting the integration of new plant-based recipes into regular menu offerings. Due in part to the length of time for procurement change to be measured, emissions analysis from FY2024 to FY2025 shows limited progress toward this end. Therefore, in addition to procurement data emissions analysis, an assessment of menus pre- and post-culinary training was completed for a more complete picture of the impact new recipes have on food-related emissions at DOC and ACS.

Procurement and menu emissions were assessed using the World Resource Institute and CoolFood calculator, designed to measure and monitor over time the greenhouse gas (GHG) emissions and land use impacts of the food the city purchases. The calculator converts annual food purchase data and automates the GHG analysis using emission factors from Poore and Nemecek (2018) and Searchinger et al. (2018). Environmental data and conversion factors include global emission factors plus regional factors for Asia, Europe, North America, Latin America, and Oceania. For additional details about the metrics, methods, data, and other considerations, information can be found on the CoolFood website.

For DOC, between FY2024 and FY2025, the total food-related carbon cost of DOC's annual food purchases decreased by 4%, from 66,047 mtCO2e in FY24 to 63,651 mtCO2e in FY25. These emissions decrease occurred alongside a 16% increase in total food procurement volume. Therefore, while total emissions decreased only slightly, the simultaneous increase in purchase volume indicates that the overall emissions intensity of DOC's food procurement significantly decreased between the two years. Overall, the emissions intensity per kilogram of food purchased (kg CO2e/kg food) decreased by 17%. This was primarily driven by a decrease in beef purchases (-14%) and increasing legumes, nuts and seeds (+13%) as a result of both the culinary training and the agency's progress to comply with the NYC Food Standards, which sets requirements for minimum servings of plant-proteins and limits servings of ruminant meat.



At ACS from FY2024 to FY2025 total food-related carbon costs increased by 12%, from 6,859 mtCO2e in FY2024 to 7,690 mtCO2e in FY2025. This was in part due to an 18% increase in total procurement volume and also due to continued inclusion of dairy and animal-based proteins on the menu. As with DOC, the greater increase in procurement volume than emissions resulted in an overall emissions intensity decrease of 5%.



Despite ongoing efforts at ACS to increase plant protein servings in compliance with the NYC Food Standards and through the inclusion of the new plant-based recipes, from FY2024 to FY2025 ACS increased purchases of beef (+15%), driving the change in emissions between the two years. However,

between the two years ACS also increased purchases of some plant protein ingredients including tofu and soy products (+39%) and tree nuts and seeds (+80%). We expect that FY2026 data will show more progress towards reducing emissions-intensive foods and increasing plant proteins with the inclusion of additional plant-based recipes from the culinary training and ongoing technical assistance to ensure ACS reduces servings of ruminant meats to comply with the NYC Food Standards.

Agency	Total Annual Carbon Costs, mtCO2e (Metric 2 + Metric 4)	Year-Over-Year Change (FY24 to FY25)	Total Food Purchased (Metric 1, kg)
DOC	FY24: 66,047		FY24: 4,470,021
	FY25: 63,651	**-4% Decrease**	FY25: 5,187,347
ACS	FY24: 6,859		FY24: 419,848
	FY25: 7,690	**+12% Increase**	FY25: 494,416

In addition to the procurement data assessment, a menu analysis was also completed to get deeper understanding of the emissions impact of new recipes. For this assessment, a week's worth of lunches served at DOC were assessed, representing the same week of meals served exactly one year apart, in 2024 prior to the culinary training and 2025 after completion of the culinary training. The 2024 DOC lunch menu assessment found an average emissions per lunch of 10.38 kg CO2e/meal with full week total emissions for lunch: 72.69 kg CO2e. In 2025, the average emissions per lunch was 6.14 kg CO2e/meal and the full week total emissions for lunch was 42.96 kg CO2e. This represents a 41% decrease in both per meal and per week menu emissions from 2024.

DOC 2024 Menu Week 5 - Cycle 2			DOC 2025 Menu Week 5 - Cycle 2		
Day	**Entrée**	**Total Carbon Costs (kg CO2e)**	**Day**	**Entrée**	**Total Carbon Costs (kg CO2e)**
1	Chicken	6.70	1	Chicken	6.70
2	Veggie Burger	2.75	2	Turkey Patty	9.97
3	Pizza Pocket	7.82	3	Baked Whiting	6.00
4	Beef patty	42.52	4	Garden Burger	5.31
5	Tuna salad	5.23	5	Tuna salad	5.23
6	Bean Chili	4.21	6	Curry chickpea	6.29
7	Turkey Taco	3.46	7	Turkey Taco	3.46
Average		**10.38**	**Average**		**6.14**
Total		**72.69**	**Total**		**42.96**

The decrease in emissions from 2024 to 2025 was primarily driven by removing beef from the menu; the highest emitting lunch in 2024 was the Beef patty (42.5kg CO2e), compared to the highest emitting lunch in 2025 which was the Turkey patty (9.97 kg CO2e). In addition to the shift from ruminant meats toward lower emission poultry proteins, the new plant-based recipes also represented a lower

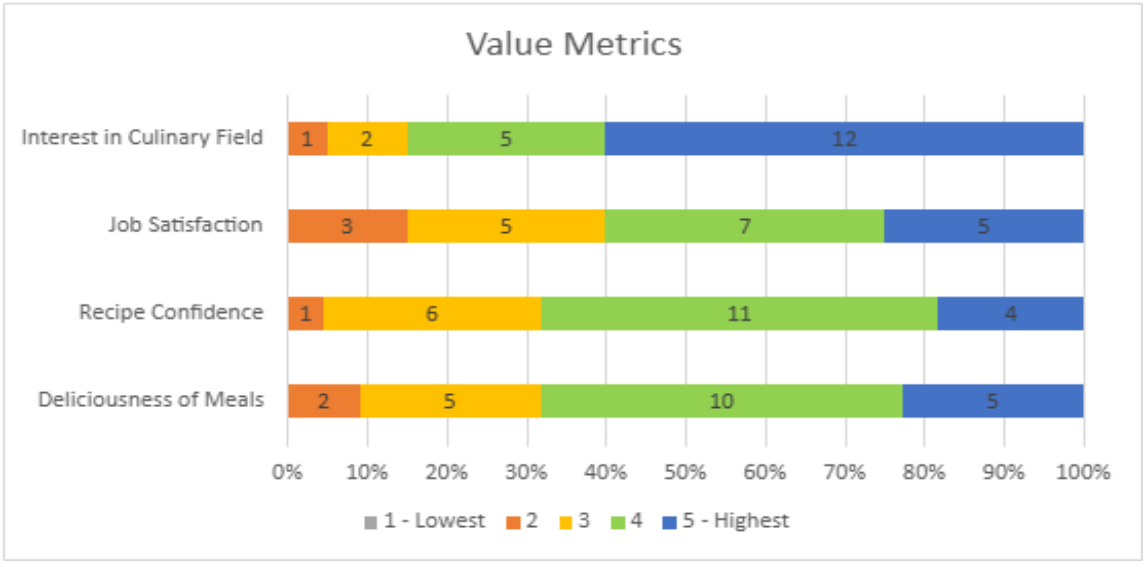
emissions intensity. In 2025, one of the new recipes—the Curry Chickpeas with Cauliflower—was nearly 8 times less carbon-intensive than the highest-carbon entrée of the same week, a Cajun Turkey Patty, and nearly 38 times less carbon-intensive than the most carbon-intensive entrée of that month, a Beef Patty.

While total emissions from food procured increased for ACS and only slightly decreased for DOC from FY2024 to FY2025, the menu analysis demonstrates the positive impact that the ongoing inclusion of plant-forward meals will have on both total emissions and the emissions intensity of foods served by DOC and ACS. Since many new plant-based recipes were not yet incorporated by the end of FY2025, we also expect that the FY2026 procurement data for both agencies will show continued increases in plant protein purchases and continued shifts away from ruminant meats and towards lower-emissions intensive animal proteins. However, total emissions will always be impacted by the total volume of food served, and increases in the number meals served by the agencies could ultimately increase total emissions, as was the case for DOC and ACS during this period. Therefore, this project highlighted the importance for the City to report on both total emissions and emissions intensity of food served by city agencies to get a more complete picture of the climate impact of food served in the City's public food programs.

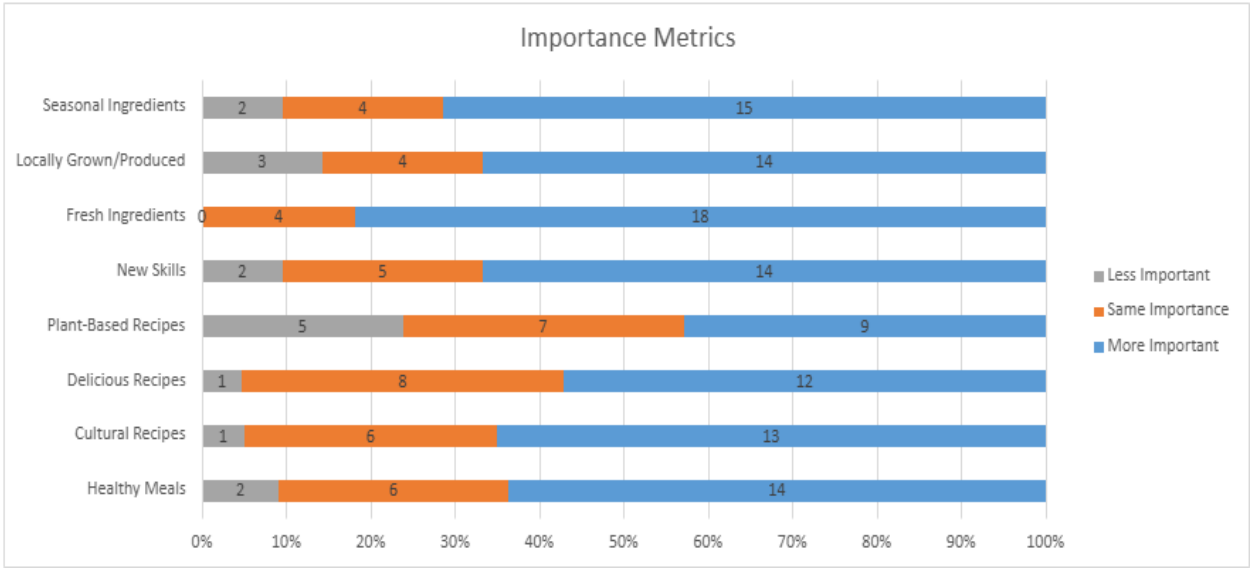
The training generated substantial enthusiasm for plant-forward cooking, especially at ACS. Staff reported integrating plant-based recipe tastings, increasing requests for related ingredients, and improving preparation techniques for meatless dishes. However, formal menu adoption lagged at DOC. Structural barriers, including staffing shortages, unclear responsibilities for menu updates, and inconsistent participation in the training, limited the agency's ability to operationalize new recipes. Staff survey responses underscored this gap: while ACS staff described visible improvements in plant-forward options, many DOC respondents reported little to no change in their menus during the first months following training. Taken together, the program successfully built capacity and interest in plant-based cooking, but uneven implementation by agencies limited emissions reductions during the reporting period.

Goal 2 — Increased Job Satisfaction for NSD Employees

Across both agencies, the training had a positive impact on staff morale and professional engagement. Participants consistently described the training as enjoyable, informative, and useful for improving daily culinary practices. Staff highlighted the instructors, hands-on learning, and practical skills gained—particularly in preparing plant-based dishes—as strengths of the program. Importantly, every respondent in the six-month post-training survey expressed a desire to participate in additional training, signaling strong enthusiasm for continued professional development. In the chart below, results from the 6-month post training show the majority of staff report highly valuing their job satisfaction, recipe confidence, deliciousness of meals. Of all the categories assessed, interest in continuing their work in the culinary field was the highest ranked value metric.



Additionally, survey assessment pre-training, 3-month post, and 6-most post training showed continued improvement in key importance metrics, including use of seasonal, fresh, and locally grown ingredients, learning new skills and creating healthy, culturally relevant recipes.



At the same time, survey responses suggest that foundational workplace challenges continue to affect job satisfaction. Staff across departments and kitchens emphasized the need for higher pay, more staffing, and clearer operational structures. Many of the barriers to implementing new recipes or sustaining improvements, particularly within DOC, were tied to long-standing systemic issues rather than the training itself. Thus, while the training successfully boosted confidence, skill development, and engagement, broader structural constraints remain central to improving overall job satisfaction among NSD employees.

Goal 3 — Increased Satisfaction with Meals Among the Population and Staff

The program also aimed to improve meal satisfaction among both staff and the incarcerated population by enhancing culinary skills, modernizing menus, and increasing access to appealing plant-based options. Staff perspectives, captured through email surveys at three- and six-months post-training, show promising early impacts. Respondents noted improvements in meal quality, particularly around healthier, better-prepared plant-forward dishes, and reported that coworkers were "eating healthier" as a result of changes inspired by the training.

While data collection for the incarcerated population faced challenges during the project, the program contributed to an important structural improvement: DOC will now administer annual satisfaction surveys through a new person-in-custody (PIC) tablet platform, ensuring that resident feedback becomes a standard feature of food service evaluation moving forward. Additionally, staff emphasized the influential role of officers and other non-culinary personnel in shaping residents' willingness to try new foods. This recognition underscores an important insight from the training: improving resident satisfaction requires broader staff engagement in reinforcing positive food culture, not just kitchen-level changes.

Assessment of Key Themes

Interviews with ACS and DOC leadership highlight several core themes that shaped the project's impact and illuminate the conditions needed for long-term success. A consistent throughline is the gap between policy design and everyday implementation. Staff repeatedly emphasized that while training improved culinary skills, creativity, and recipe testing capacity, success ultimately hinged on leadership ownership, contracting processes, and cross-department communication; areas that often operated in silos or lacked clarity. This disconnect was particularly visible in DOC, where staffing vacancies, unclear responsibilities, and limited engagement with the training resulted in minimal adoption of new recipes or procurement changes.

In contrast, ACS teams demonstrated strong initiative, using the training as a catalyst to expand plant-based item requests, conduct ongoing tastings with staff and youth, and pilot new recipes. A key insight was the power of influencer staff, youth development counselors, guards, and operations staff, whose opinions shape residents' willingness to try new foods. ACS staff learned that engaging adults first, and using that trust to introduce meals to youth, significantly improved uptake and reduced meal refusals.

Another dominant theme was the need for comprehensive nutrition education. Staff across agencies identified personal fears (e.g., seasoning foods due to family health histories), misunderstandings about dietary guidelines, and a lack of shared knowledge around food science as barriers to implementing recipes confidently. Participants expressed that nutrition training for culinary workers, leadership, youth, and clinical staff would support both better decision-making and stronger alignment with Food Standards.

The conversation also underscored that institutional food service operates differently than other city settings, and current citywide Food Standards do not fully account for the realities of youth detention. Youth refusal of meals—sometimes for days—creates cascading medical, safety, and operational

consequences. Staff emphasized the necessity of flexibility in standards for institutional populations, particularly regarding whole versus minimally processed plant-based proteins and culturally familiar items.

Finally, the team stressed the importance of a post-training sustainability plan, including dedicated staffing, procurement liaisons, leadership engagement, and a permanent presence to support ongoing implementation. Without structural support and clear accountability, trainings risk becoming one-off events rather than catalysts for lasting system change.

City Policy Opportunities

1. Create Separate or Modified Food Standards for Institutional Settings

Staff emphasized that current Food Standards—designed primarily for general city agencies like the Department of Education (DOE) and Health and Hospitals (H+H)—do not account for the unique realities of youth and adult detention, where individuals have no alternative food access and meal refusal has serious safety and health consequences.

Policy opportunity:

- Develop *distinct institutional food standards* or flexible adaptations for detention settings (ACS, DOC).
- Allow limited use of non–whole/minimally processed plant-based items when necessary for youth acceptance and consistent nutrition.
- Formally incorporate cultural relevance and trauma-informed food considerations.

2. Mandate Nutrition Education Across Food Service Roles

A major barrier to implementation is lack of shared nutrition knowledge: culinary staff avoid seasoning due to personal beliefs, leadership misinterprets soft-diet needs, and youth lack understanding of balanced meals.

Policy opportunity:

- Require baseline nutrition training for all food service workers, facility leadership, and relevant clinical staff.
- Incorporate nutrition modules into onboarding and ongoing certifications.
- Provide youth-friendly nutrition education as part of facility programming.

3. Establish Requirements for Leadership Participation in Food Policy Trainings

The transcript shows that buy-in from senior staff (e.g., DOC leadership) was uneven, and adoption lagged where managers did not attend or understand the training.

Policy opportunity:

- Require leadership and RD teams across agencies to participate in culinary or food policy training cycles—not just kitchen staff.
- Mandate cross-department participation (operations, security, youth development), given their influence on adoption and resident acceptance of meals.

4. Strengthen and Standardize Procurement Processes Across Agencies

Challenges included inconsistent contracting, misalignment with Food Standards, and lack of staff who understood procurement mechanics.

Policy opportunity:

- Fund or mandate procurement liaisons within agencies or at MOFP to review contracts, vet items for alignment, and support requisition cycles.
- Create a centralized, citywide database of approved plant-based and compliant items to reduce confusion across agencies.
- Improve procurement guidance and timelines for small-footprint agencies like ACS.

5. Require Sustainability and Implementation Plans for Training-Based Initiatives

Staff stressed that once training ended, DOC had no infrastructure to carry changes forward.

Policy opportunity:

- For any initiative, require agencies to submit post-training sustainability plans, including staffing roles, execution steps, and accountability structures.
- Tie ongoing support or renewal of programs to demonstrated progress in adoption.

6. Formalize Cross-Agency Collaboration on Food Standards Development

The interviews revealed missed opportunities for early input from food service staff and a power gap between DOHMH standard-setting and operational realities.

Policy opportunity:

- Create a Food Standards Advisory Council including ACS, DOC, DOE, H+H, and MOFP operations staff who implement standards daily.
- Require early-stage consultation before Food Standards revisions, not just late-stage review.

7. Expand Permitted Food Items and Flexibility for Cultural Food Preferences

Staff reported that youth acceptance is tied to familiarity, and that rigid standards can create unintended consequences (e.g., multi-day meal refusal).

Policy opportunity:

- Review restrictions on certain proteins (e.g., pork, fish, culturally specific items) and allow flexibility for culturally relevant, scratch-cooked foods where appropriate.
- Allow substitution lists for facilities to adapt meals in ways that maintain nutritional integrity while meeting youth preferences.

8. Address the Role of Non-Culinary Staff in Food Trust and Acceptance

Adult staff (Youth Development Specialist officers, guards, building leadership) significantly shape youth willingness to try meals. The current system does not account for their influence.

Policy opportunity:

- Integrate non-culinary frontline staff into food-related training and communication.
- Require facilities to have standard processes for staff tastings and coordinated rollouts of new menu items.

9. Mandate Agency Response Rates and Participation in Data Collection

Project data collection failed in DOC because kitchen managers did not respond until escalated to commissioner-level staff.

Policy opportunity:

- Standardize expectations for survey participation, training attendance, and feedback cycles across agencies with formal accountability measures.

10. Revisit the Policy Environment Around Sodium and Seasoning

The interviews highlight that a "no salt" rule in DOC stemmed from unclear internal reasoning (e.g., a past desire to be "heart healthy") and is not required by city Food Standards.

Policy opportunity:

- Clarify and standardize seasoning guidelines across agencies to avoid punitive or harmful interpretations.
- Align sodium restrictions with evidence-based nutrition science and cultural relevance.

Conclusion

Overall, the culinary training program strengthened plant-based culinary skills, increased staff enthusiasm and engagement, and laid essential groundwork for long-term improvements in menus and emissions reductions. ACS demonstrated faster uptake and clearer early impacts, while DOC's structural challenges limited short-term menu and procurement changes but highlighted key areas for organizational investment. The program's impacts, especially enhanced staff skills, high demand for continued training, and the adoption of inclusive satisfaction survey systems, provide a strong foundation for continued progress toward healthier, more sustainable, and more satisfying meals across the agencies.