

Key Ingredients for Cooking Up New School Food Systems



An Evaluation of
the Orfalea Fund's
School Food Initiative

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EVALUATION 
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BACKGROUND

In 2007, The Orfalea Fund (TOF) began working to improve the quality of school food and promote food literacy throughout Santa Barbara County public schools through its School Food Initiative (Initiative). TOF contributed \$12.75 million in its efforts to improve the quality of school food and promote food literacy in Santa Barbara County between 2007 and 2015. The goal was to use school food and related systems as a mechanism to create a community of healthy children and families across Santa Barbara County. They began this effort by conducting assessments in schools across the county to understand existing needs associated with improving school food.

Striving to meet each school where it was, and to tailor programming to its specific needs, they engaged with willing schools and districts, emphasizing stakeholder involvement throughout the process. They launched a multi-pronged initiative aimed at empowering public school districts within the county to implement and sustain nourishing cooked-from-scratch food service operations, thereby intending to create a community of healthy children and families. This effort, the School Food Initiative (Initiative), included five major programmatic activities:

CULINARY TRAINING FOR SCHOOL FOOD PERSONNEL

Over a five-year period, the Initiative hosted thirteen week-long intensive Culinary Boot Camps for food service personnel working in Santa Barbara County public schools. Working alongside Chef Educators and their peers, attendees practiced the skills required to integrate more scratch cooking techniques into school kitchens.

DIRECT TECHNICAL SUPPORT FOR SCHOOL FOOD PERSONNEL

Following the culinary training, the Initiative provided Chef Instructors to schools for hands-on technical support in integrating the lessons learned at the Boot Camps into their daily practice.

FUNDING FOR SCHOOL KITCHEN EQUIPMENT AND INFRASTRUCTURE

The Initiative invited school districts to apply for grants to purchase kitchen equipment and fund kitchen and cafeteria remodeling. The School Food Initiative approved requests focused on increasing scratch cooking capacity, procuring locally grown produce, and engaging student participation in school meals. Grant agreements included mutually-agreed upon stipulations designed to ensure the investments drove Initiative goals and were achievable.

SUPPORT FOR EDUCATIONAL PROGRAMMING TO PROMOTE FOOD LITERACY AT ALL GRADE LEVELS

The Initiative supported the implementation of a variety of school-based food literacy educational programs in the classroom, cafeteria, and school garden. These programs were designed to connect students to the food they eat and the environment they live in, encouraging them to make healthy choices for their bodies and their world.

SUPPORT IN INITIATING AND OPTIMIZING WELLNESS COMMITTEES

The Initiative recognized that a prevailing culture of health and wellness on school campuses was instrumental in sustaining its work. Chef Instructors helped existing Wellness Committees create individualized Wellness Policies and produce a user-friendly “one sheet” version of the policy for distribution to teachers and parents. In school districts without an active Wellness Committee, the Chef Instructors played a key role in bringing stakeholders together to form a Wellness Committee.

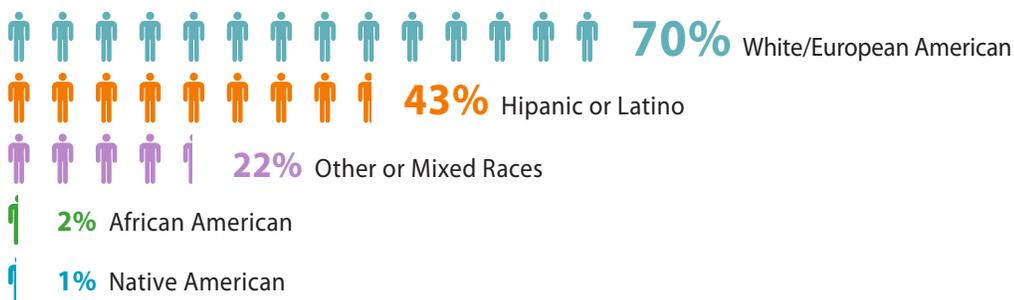
The Initiative was launched just prior to national and regional momentum building around school food reform issues. This fortunate timing made it possible for the Initiative to support and accelerate positive changes. The Initiative’s approach to addressing this community-wide problem does not fit a standard theory of action or linear trajectory. Rather, each initiative activity was linked to multiple intended outcomes, which were also linked to multiple intended impacts, as depicted in Appendix I.

DESCRIPTION OF COUNTY

Santa Barbara County, located on the central coast of California, has a population of about 425,000 and is diverse both racially and socioeconomically. The county is approximately 70% White/European American, 2% African American, 1% Native American, and 5% Asian American and Pacific Islander. About 22% of residents describe themselves as being of other races or mixed race. About 43% of residents are Hispanic or Latino, primarily of Mexican background but also including Salvadorans, Guatemalans, and Puerto Ricans. Approximately 32% of the county's 140,000 households have children under the age of 18; these children comprise approximately 22% of the county's population. The average family size is 3.33. The median income for a family is \$54,000, and the per capita income for the county is \$23,000. About 9% of families and 14% of the total population live below the poverty line, including 16% of children (US Census Bureau, 2010).

Santa Barbara County's 100+ public schools are diverse in regards to student population and resources, and serve 65,000 PreK-12 students across 20 school districts. They serve youth from 6 to 19 years old and are funded by county, state, and federal governments.

County Racial Identity



Note: race categories are not mutually exclusive

County's Family Statistics



3.3

Average Family Size

32%

of 140,000 households with children under the age of 18

Below the Poverty Line

9%

Families

14%

Total Population

16%

Children

INTENDED INITIATIVE OUTCOMES AND EVALUATION QUESTIONS

The School Food Initiative intended to positively influence the following seven outcomes:

- 🍌 Food literacy
- 🍌 Food-related school policies and culture
- 🍌 School food quality and what is offered to students
- 🍌 School food personnel expertise and sense of empowerment
- 🍌 School food service facilities
- 🍌 Students' food-related behaviors and choices
- 🍌 Related community involvement and partnerships

See Appendix A for a glossary of these terms.

The goals of this mixed-methods evaluation were to answer these five evaluation questions:

- 🍌 Which activities of the Initiative were most valuable?
- 🍌 How did the Initiative influence each of the above outcomes?
- 🍌 What were the barriers to and facilitators of successful Initiative implementation?
- 🍌 What content and resources do schools and districts believe they need to know and have to sustain the Initiative-initiated efforts?
- 🍌 What are the best practices of the Initiative?

EVALUATION METHODS

Working collaboratively with Orfalea Fund staff, Evaluation Specialists (ES) selected a mixed methods retrospective evaluation approach. Mixed methods approaches combine both quantitative and qualitative data sources. The four methods chosen for this evaluation were:

1] **Interviews with 46 stakeholders.** We conducted in-person or telephone interviews with 46 individuals engaged in the Initiative using a semi-structured interview guide (Appendix D). Sixty-one individuals were invited to participate in in-depth, one-on-one interviews during Spring 2015. Those invited represented a variety of roles, school characteristics, and Initiative engagement levels including Chef Instructors employed by TOF, district and school-level leadership, and district-level food service directors and school-level food service staff (together identified as “school food personnel” throughout this report). Interviewees represented various regions of the county; schools having low and high proportions of students eligible for free or reduced-price lunch; schools serving various grade levels with both large and small number of students; and schools that engaged with the Initiative at various levels. We did not interview schools that declined to be engaged with the Initiative. See Appendix H for a presentation of quotes that illustrate each finding presented in this report, and quantitative counts of the qualitative trends.

2] **A county-wide survey with 45 cafeteria managers.** We designed and conducted a County-wide, online survey of cafeteria workers, using a method known to provide reliable estimates of short- and long-term change. All cafeteria managers who led school food efforts in public schools across Santa Barbara County who had some interaction with the Initiative were invited to participate. Eighty-four schools led by 67 cafeteria managers fit these criteria. District supervisors were made aware of the survey and asked to encourage participation. ES invited cafeteria managers to participate in the survey and offered \$25-30 gift cards (depending on the timing of their survey completion) in exchange for their participation. Forty-five cafeteria managers (67%) responded to the survey. The survey can be found in Appendix E and all related findings can be found in Appendix G.

- 3] **An analysis of change over time in school-and district-level data collected by TOF.** The Orfalea Fund staff collected data on school food offerings regularly from schools and districts throughout the School Food Initiative program cycle. Evaluation Specialists staff compiled and analyzed these data, then assessed change over time using GEE as the statistical approach. A list of all the data collected in this process is presented in Appendix B, and all findings related to this activity are presented in Appendix F.
- 4] **The development and application of an evaluation rubric.** Together with The Orfalea Fund staff, we designed and applied an evaluation rubric (Appendix C) to guide the synthesis and interpretation of findings from the three previously-mentioned data sources. This rubric was designed to provide definitions of Initiative success using a four-point scale ranging from not successful (1) to highly successful (4), and Initiative impact on a four-point scale ranging from not impactful (1) to highly impactful (4).

Further information about the methods used for the evaluation, including sample descriptions, can be found in Appendix B. Our conclusions throughout the report are based on the triangulation of findings from these four data sources.



FINDINGS

QUESTION 1:

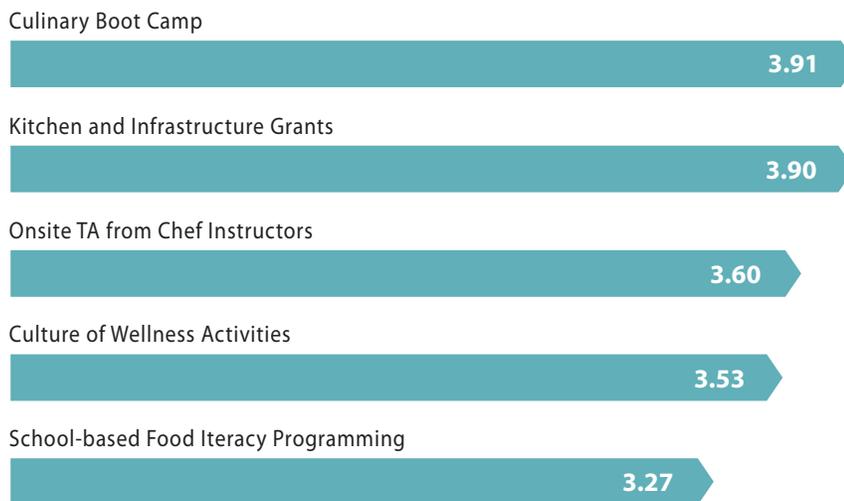
Which activities of the School Food Initiative were most valuable?

Out of the five primary Initiative activities, two stood out as being most valuable: Culinary Boot Camp and the Kitchen Equipment and Infrastructure Grants (Figure 1). The technical assistance provided by the Chef Instructors and the support that the initiative offered to improve overall school culture and policies were also reported as being valuable. School-based food literacy programming was seen as only slightly less valuable.

Figure 1.

Please rate each of the School Food Initiative's primary activities

1= Not at all useful 4= Very useful



“I went through the Culinary Boot Camp and it was a great experience. I feel like they raised the bar on the expectations of school food and how it’s prepared, and gave us the knowledge that we needed to meet that new expectation and cook from scratch.” — Food Service Staff

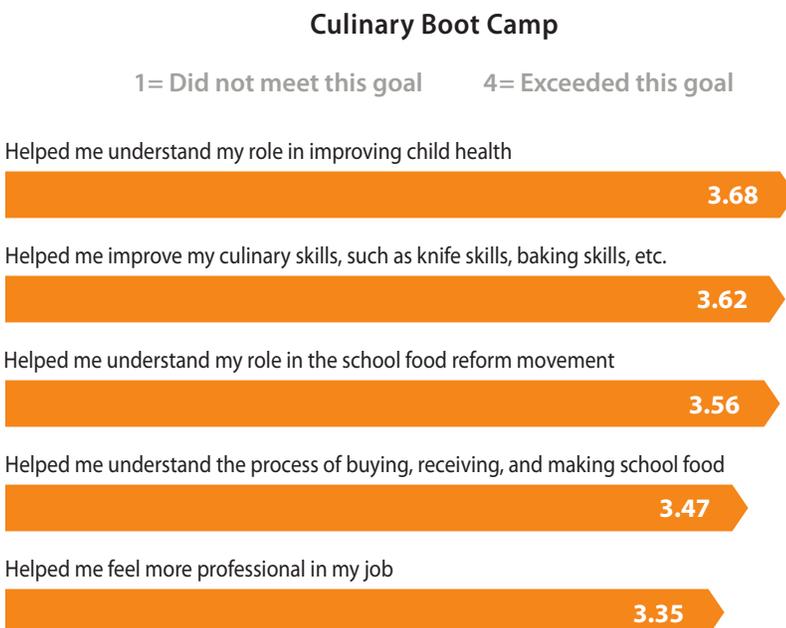
ACTIVITY 1: THE CULINARY BOOT CAMP.

Culinary Boot Camp was seen as the most useful activity of the Initiative. Study participants appreciated that trainings were offered throughout Santa Barbara County. They mentioned that this method led to the county's school food service community being engaged in parallel efforts to improve school food quality, which increased momentum and ensured that school food teams and districts had common expectations of the reform intentions. The Culinary Boot Camp trainings informed, energized, and empowered food service personnel and led to a more cohesive and confident team. Participants described the combination of hands-on exercises, didactic curriculum, and opportunities to interact with other food service personnel as valuable. Many mentioned it was vital that they were offered multiple opportunities to attend trainings, as this enabled them to recall lessons learned in prior trainings. Importantly, participants felt they learned a broad spectrum of important professional content, including:

- 🍏 Food safety requirements
- 🍏 Knife skills
- 🍏 Recipe conversions
- 🍏 Baking techniques
- 🍏 Use of modern/industrial equipment
- 🍏 Organization skills
- 🍏 Practices to establish positive relationships with colleagues

Cafeteria managers felt that the Culinary Boot Camp met or exceeded each of its goals related to improving their professional expertise, though they would have appreciated additional training in connecting the dots between Culinary Boot Camp recipes and federal and state regulations. Figure 2 illustrates this finding.

Figure 2.



90%

Respondents that reported that new personnel had been trained in scratch cooking by former attendees of Culinary Boot Camp.

ACTIVITY 2: GRANTS TO FUND SCHOOL AND DISTRICT KITCHEN INFRASTRUCTURE AND EQUIPMENT.

Grants to fund school and district kitchen infrastructure and equipment were seen as a principal activity of the Initiative. Study participants felt the alignment between these grants and lessons learned at the Culinary Boot Camp was instrumental in helping them adopt more scratch cooking practices. Participants described these two activities of the Initiative as synergistic: the training increased intentionality and developed expertise, while the funding provided the materials necessary to apply it in their work environment.

While the vast majority of study participants felt the funding was valuable, three mentioned that additional funds were needed to maximize that value. For instance, two study participants mentioned that they were not aware the Initiative would have supported resources necessary for construction (such as the labor hours of a project manager) in addition to the actual construction costs and therefore had to fund that support from their own budgets, and another mentioned the need for funding to maintain the new equipment. A few also mentioned they would have benefitted from clearer expectations of what was expected of them in return for receiving funding.



“We needed the tools such as mixers, quality knives, convection ovens, tilt skillets and immersion blenders. And this district didn’t have those tools. The School Food Initiative grants provided us with that equipment so that we could do scratch cooking.”

— Food Service Director

ACTIVITY 3: ON-SITE TARGETED TECHNICAL ASSISTANCE (“IN-SERVICE CULINARY SUPPORT”).

On-site targeted technical assistance (“in-service culinary support”) offered by School Food Initiative Chef Instructors was an important aspect of the Initiative. Chef Instructors provided support and technical assistance to food service personnel participating in the Initiative in an “on-demand” and “continuous” manner via phone, email, and in-person. Support took a variety of forms, such as assisting with menu preparation, participating in side-by-side cooking, uncovering ways to balance the department budget, engaging with students to elicit consumer opinions, developing derivatives of standard recipes, helping to establish relationships with local vendors, helping with public relations and marketing efforts, and offering practice-related suggestions (e.g., how to serve or plate the food). Cafeteria managers felt that the Chef Instructors met or exceeded each of their goals to provide them with support.

On the negative side, one study participant mentioned that the Chef Instructor would appear at her school unexpectedly and make food personnel feel they were being assessed rather than supported, though this individual still found value in the support. Figure 3 illustrates these findings.

Figure 3.

The Chef Instructor

1= Did not meet this goal 4= Exceeded this goal



“The Chef Instructor visits us here on our campus and works in the kitchen right alongside our employees to support all of the various elements that go into scratch cooking and improving school food. She also pushes us to improve by asking us questions and helping us come up with solutions.”
 — Superintendent

ACTIVITY 4: THE SCHOOL FOOD INITIATIVE EFFORTS TO IMPROVE SCHOOL CULTURE.

The School Food Initiative’s efforts to improve school culture were effectively aligned with regional and federal efforts. The Initiative sought to assist districts in establishing school wellness policies by encouraging them to initiate Wellness Committees or galvanize existing ones. Many of the wellness policies created were crafted at the district level and aligned to federal and state guidelines. These policies were then adopted and enacted by the schools. Examples of such policies include using alternatives to sugar for rewards and celebrations, limiting students access to vending machines, and excluding high-sugar products from fundraising efforts. Some of these committees were established prior to engagement with the Initiative, but study participants who connected the Initiative to committee efforts felt it helped spur progress.



ACTIVIY 5: THE SCHOOL FOOD INITIATIVE'S VARIETY OF FOOD LITERACY PROGRAMS.

The School Food Initiative's variety of food literacy programs, specifically its support of school gardens, was particularly valuable. The Initiative supported many school-wide food literacy programs and efforts. These included:

1] School Gardens and Chefs in the Garden. The Initiative supported the installation or enhancement of school gardens as a way of creating outdoor food literacy learning environments. The gardens were intended to help students recognize and accept the new foods served in their school cafeterias, particularly on the salad bars. The Initiative also provided garden education managers (GEMs) to teach students about the food life cycle in this hands-on setting alongside the Initiative Chef Instructors who conducted "Chef in the Garden" cooking and tasting events.

2] Jr. Chef is a food-based education opportunity to teach students where food comes from and help them feel connected to what they eat. These opportunities were offered from 2009-2011, but were not continued throughout the remainder of the Initiative.

3] FoodPlay Productions is a research-based performance that teaches children about the importance of healthy eating. The Initiative hosted these productions in select schools through 2012.

4] Rethink the Drink. The Orfalea Fund partnered with the Community Environmental Council and Vapur, Inc. to install water filtration stations in selected schools. This was often accompanied by distribution of reusable canteens. The Initiative also encouraged assemblies to educate the student population on using the filtration stations as well as the environmental impact of reducing single-use plastics.

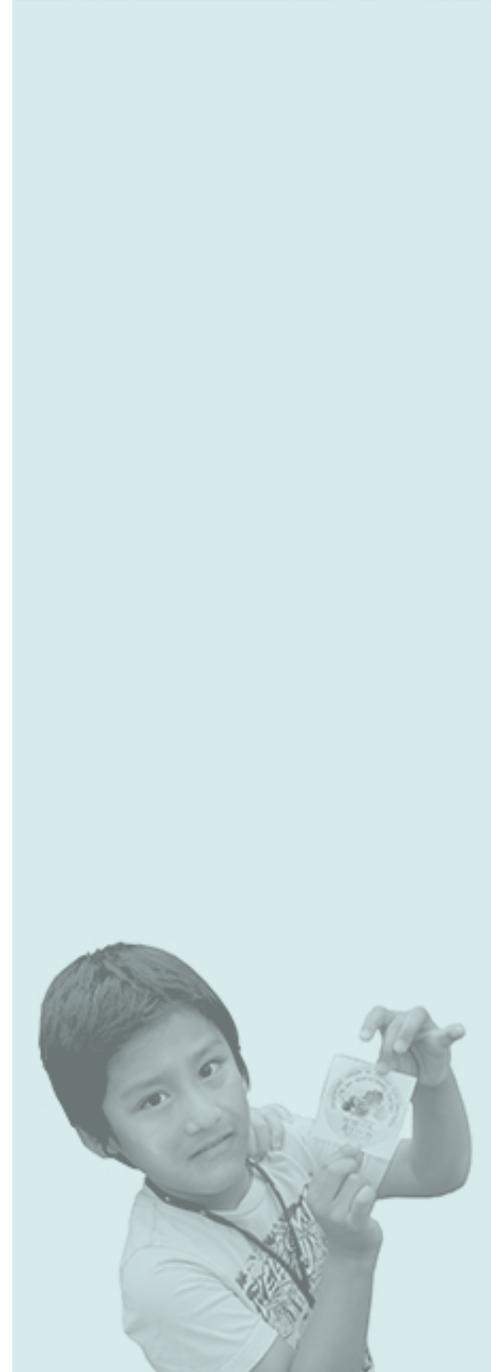
Each of these programs was perceived to be useful by study participants, as illustrated in Figure 4. Some study participants also acknowledged that the School Food Initiative propelled them to invest in and use hydration stations. Hydration stations were described as valuable in encouraging students to drink water rather than sugar-sweetened beverages.

The school gardens and aligned chef support, were reported as being particularly instrumental in teaching food literacy to children and helping them connect the dots between where food comes from and what food they are offered at school. Jr. Chef was seen as useful in engaging children in cooking and exposing them to new foods.

Figure 4.

Please rate each of the food literacy programs

1= Not at all useful 4= Very useful



QUESTION 2:

How have the Initiative efforts influenced each of the seven intended initiative outcomes?

The Initiative was designed to improve seven major outcomes:

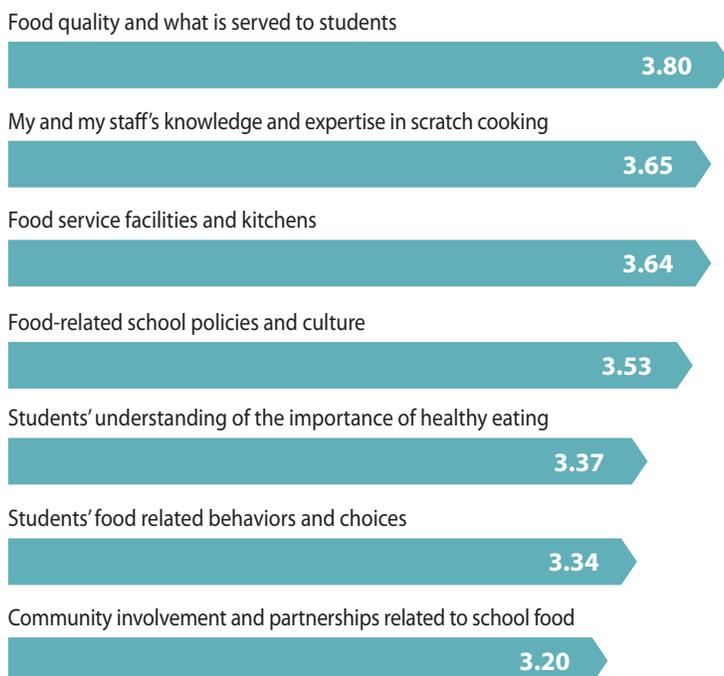
- 🍌 School food quality and what is offered to students
- 🍌 School food personnel expertise and sense of empowerment
- 🍌 Food service facilities
- 🍌 Food-related school policies and culture
- 🍌 Food literacy
- 🍌 Students' food-related behaviors and choices
- 🍌 Related community involvement and partnerships

Evaluation findings indicate that outcomes in each group improved due to the Initiative. Study participants reported that the Initiative accelerated improvements the most in school food quality and what is offered to students; the knowledge and expertise of school food personnel; school food service facilities; and food-related school policies and school culture. Findings also demonstrate that the Initiative improved food literacy, students' food-related behaviors and choices, and related involvement by community parents and farmers, though to a slightly lesser degree. Study participants also identified two positive unanticipated outcomes related to the Initiative: teacher participation in school food and families' food literacy. Figure 5 presents average improvement in each of the intended outcomes due to the Initiative.

Figure 5.

Please rate the following outcomes based on how much you think they improved because of the School Food Initiative

1= Not at all improved 4=Very improved



Study participants were asked to imagine conditions if TOF had not existed. Respondents rated outcomes as superior, by a statistically significant margin, in the presence of the Initiative compared to how they would have been without it. This finding occurred across the following outcomes: the professionalism and empowerment of food service personnel, food literacy, food quality and offerings, students' food-related behaviors, and related community involvement and partnerships.

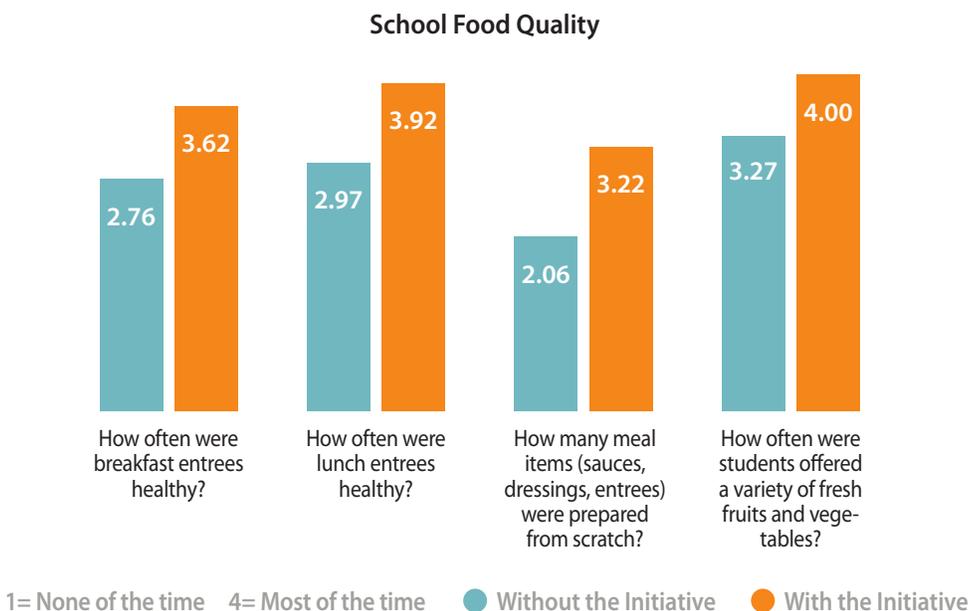
OUTCOME 1: WHAT IS OFFERED TO STUDENTS.

The Initiative helped improve school food quality and what was offered to students. Positive changes in food quality and the healthfulness of food offered to students was evident. Salad bars and more fruits and vegetables were offered to students significantly more frequently over the course of school districts' work with the Initiative, indicating improvements in the food quality/what is offered to students. More sauces and dressings were made from scratch, more whole grains were served, more organic and local goods were used, fewer canned fruits were offered, flavored milk was offered less frequently, and more whole muscle meats were served. Combined, these changes reflect overall improvements in the food that is offered to students as a result of the School Food Initiative and the new standards implemented in 2010 through the Healthy Hunger-Free Kids Act. In addition, more adults and more paid meals were served at lunch, indicating a perception of improvement in food quality.

Only three study participants mentioned that either the food offered had not improved, or that the improvements were not embraced by school communities because taste was sacrificed. Despite this agreement and evidence that school food quality had improved, food waste was not reduced as much as intended.

Figure 6 illustrates cafeteria managers' perceived impacts of the Initiative on school food quality and what is offered to students. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 6.



“The food is amazing now. We now have a lot more fresh food, a lot of wheat as compared to just white bread and rice, and a lot more whole foods.” — Teacher

OUTCOME 2: SCHOOL FOOD PERSONNEL EXPERTISE AND EMPOWERMENT.

The Initiative developed expertise and a sense of empowerment in school food personnel. The Initiative improved the professionalism of food service personnel by training a total of 293 food service personnel across the County between 2008-2013 on scratch cooking and related equipment through its Culinary Boot Camps. These food service personnel were significantly more likely to experience mastery in knife skills, express a desire to institute change, request to do more scratch cooking, and report making changes in their personal behaviors over the course of their work with the Initiative.

Study participants described improvements in:

Cooking Knowledge. School food personnel learned efficient techniques for scratch cooking (such as knife skills, food safety skills, using new equipment, organizing cooking practices), as well as how to do math conversions to translate recipes for large student bodies.

Nutrition Knowledge. School food personnel had a better overall understanding of nutrition as well as specific topics such as hidden sugars, ways to reduce sodium, and connections between nutrition and overall student health.

Personal Confidence and Empowerment. School food personnel felt a new sense of accountability for and ownership of their work in the kitchens after their involvement with the School Food Initiative. They felt and demonstrated a sense of professionalism and confidence in their work due to their new expertise.

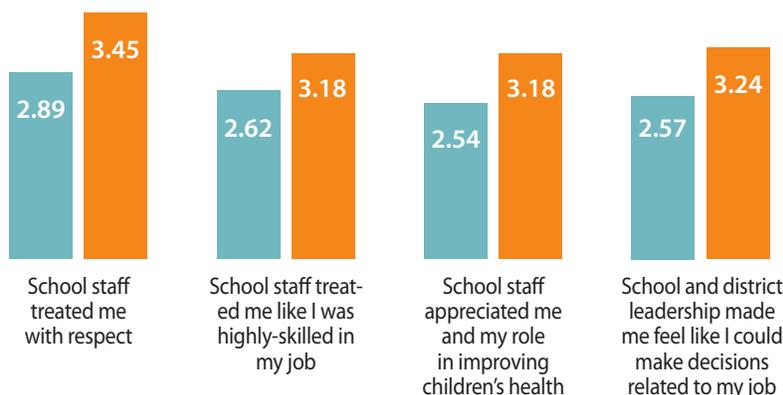
Perceptions of the Role of School Food Personnel. Study participants recognized that school food personnel have historically been perceived, by themselves and others, as the “low man on the totem pole.” They felt this perception had shifted and that food service personnel and other school stakeholders now recognized their important role in improving children’s health. They believed school food personnel now expressed feelings of pride in their work and spent more time interacting with children because of their new understanding of their own value.

Business Operations. School food personnel, specifically district-level food service directors, were better prepared to manage the tension between cooking from scratch and balancing the department budget.

Figure 7 illustrates cafeteria managers’ perceived impacts of the Initiative on their own expertise and empowerment. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 7.

School Food Personnel Expertise and Empowerment



1= No one did 4= Most staff did ● Without the Initiative ● With the Initiative



Cafeteria managers currently aware of federal and state guidelines for sugar, salt and fat in school meals.



Cafeteria managers that would not have been aware of these standards without the Initiative.

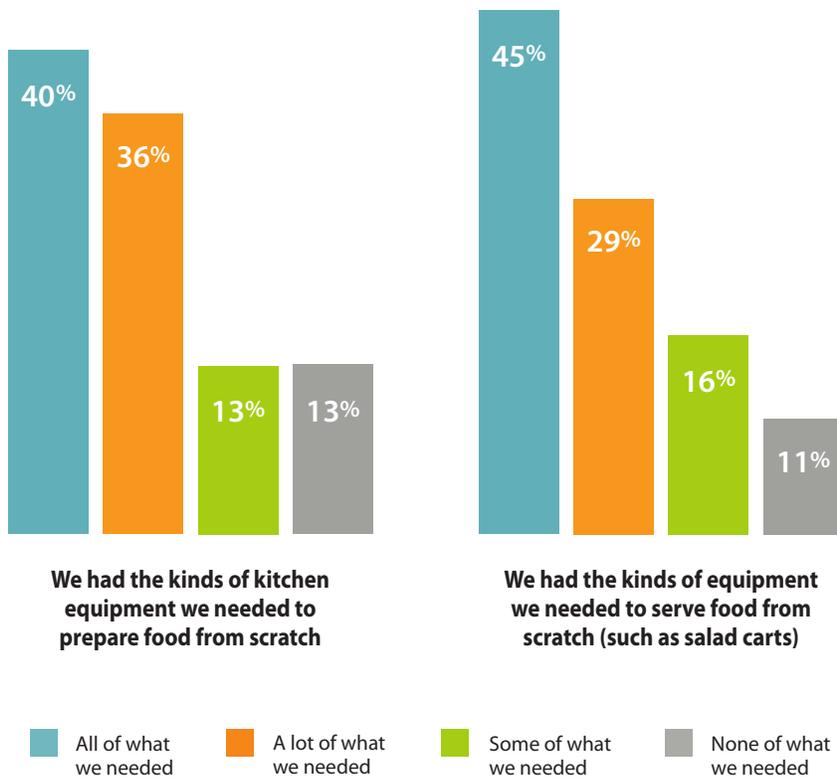
OUTCOME 3: SCHOOL FOOD SERVICE FACILITIES.

The Initiative helped improve and equip school food service facilities.

Study participants reported positive changes in school and district food service facilities. Many spoke of the School Food Initiative providing both large kitchen instruments (such as blast chillers and ovens) and small kitchen equipment (such as slicers, juicers, immersion blenders, salad spinners and whiteboards), as well as supporting full kitchen redesigns. The provision of salad bars was mentioned as being particularly important. These tools made scratch cooking feasible and more efficient, allowing schools to do it in ways they could not otherwise. The Initiative funding for equipment and redesigns was sometimes supplemented by schools, either indirectly by providing staff to oversee construction and purchases, or directly by providing funds for more equipment via internal school funds (such as Child Nutrition Funds).

The majority of cafeteria managers felt that they had the equipment needed to prepare and serve food from scratch because of these grants. See Figure 8 for an illustration of this finding.

Figure 8.



75%

Respondents that said the equipment provided by the Initiative was always used to support their scratch cooking efforts, and that none of the equipment provided goes unused.

78%

Respondents that said they would not have had the equipment needed to prepare scratch cooking if the Initiative had not existed.

65%

Respondents that said they would not have had the materials to serve scratch-cooked meals without the help of the Initiative.

OUTCOME 4: FOOD-RELATED SCHOOL POLICIES AND CULTURE.

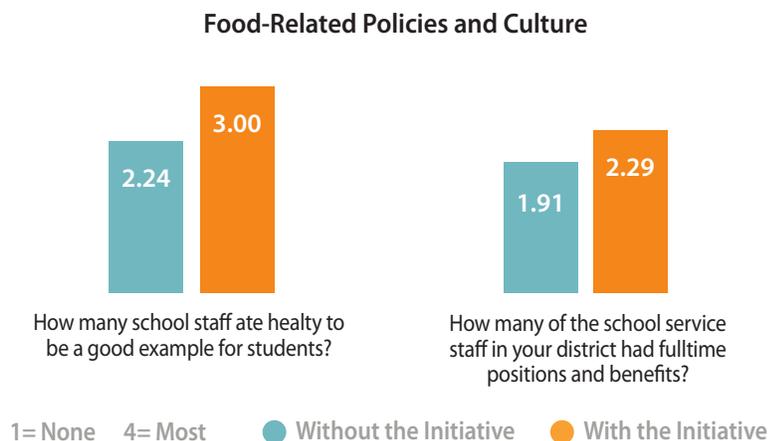
The Initiative helped improve food-related school policies and culture.

Noticeable and positive changes in school policies and culture were described by many study participants. They attributed these changes, in part, to a greater degree of adult food literacy. Specifically, they mentioned that the School Food Initiative, and exposure to research aligned with the policies they attempted to enact, helped them understand the value of food aesthetics, the importance of creating an inviting eating environment and the value of providing breakfast in the classroom; providing healthy midday snacks; and offering recess before lunch. Wellness Committees created or encouraged by support from the School Food Initiative, used this information to draft school policies and integrate health and wellness into Local Control Accountability Plans (LCAP), the new California education funding model. These policies then contributed to changes in school practices and overall school culture, including:

- 🍏 Designing more user-friendly cafeterias
- 🍏 Adopting new programs such as nutrition breaks and Breakfast in the Classroom (BIC)
- 🍏 Offering recess before lunch
- 🍏 Removing soda machines from school campuses
- 🍏 Serving healthier foods at Parent-Teacher Association (PTA) meetings and school staff meetings
- 🍏 Restricting highly-processed or high-sugar foods from rewards systems and fundraising efforts
- 🍏 Being thoughtful about plating meals for students

Figure 9 illustrates an example of cafeteria managers' perceived impacts of the Initiative in terms of school policies and culture. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 9.



District policies, and therefore school policies, reflected these positive shifts. However, some study participants mentioned that they would appreciate additional help in enforcing new policies; while others believed that the policies should be focused on moderation rather than restriction, and therefore chose to implement them in this way.

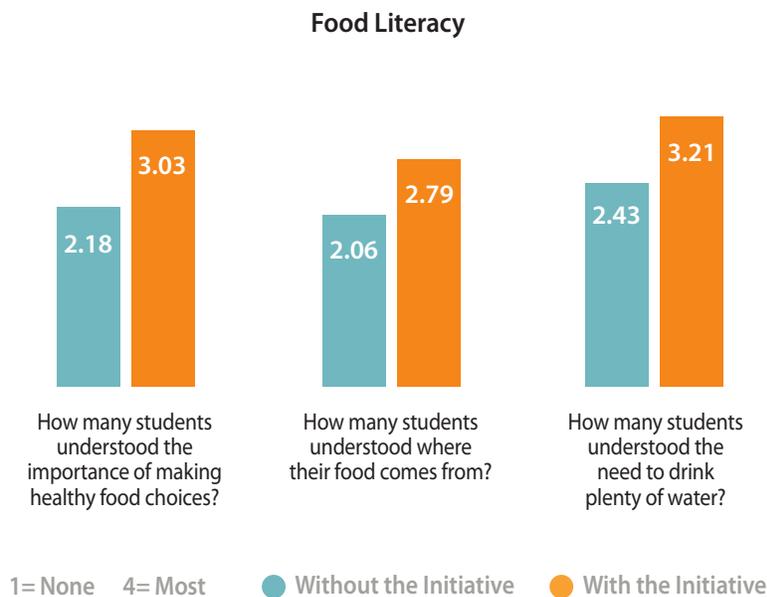


OUTCOME 5: FOOD LITERACY.

The Initiative helped improve food literacy. Noticeable improvements in students' food literacy were reported by many participants. These improvements were most frequently attributed to students' exposure to new foods and food-related practices (such as recycling and composting) that they may not have been exposed to in their home or after-school environments, as well as healthier preparation of known foods (e.g., a full potato rather than french fries). While little overt nutrition education occurred in the classroom or during school meal times, study participants felt that their encouragement for students to taste new foods led to improvements in food literacy. Also, student involvement in food literacy programming, particularly the school gardens, led to improved understanding. This improvement in literacy was most common in schools serving younger students.

Figure 10 illustrates an example of cafeteria managers' perceived impacts of the Initiative in terms of students' food literacy. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 10.



The students are willing to try a lot more foods, particularly fruits and vegetables. They are really expanding their horizons, and we talk about the healthy foods in terms of nutrition.

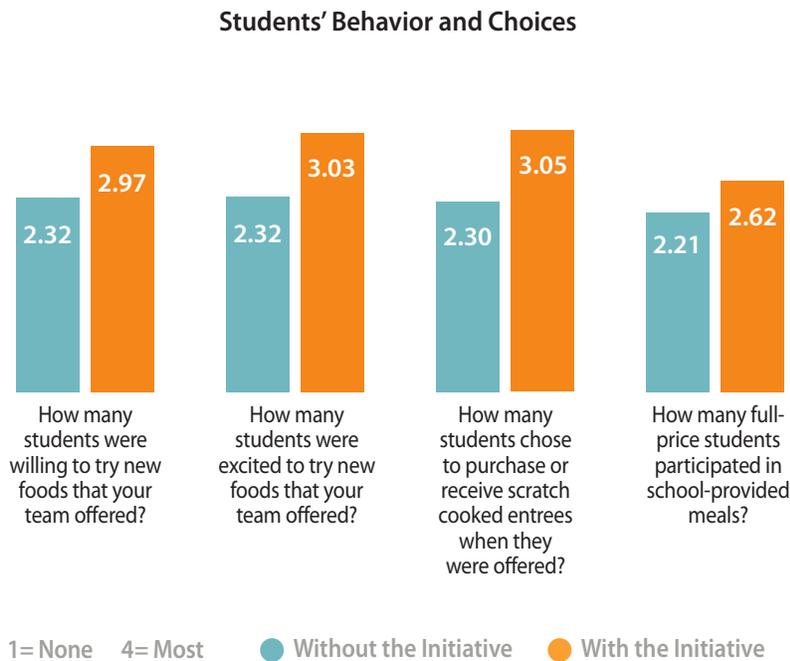
— Teacher

OUTCOME 6: STUDENTS' FOOD-RELATED BEHAVIORS AND CHOICES.

The Initiative helped improve students' food-related behaviors and choices. Some study participants identified positive changes in students' food-related choices. They attributed this to the healthier option having become the default choice. This change was due to the effect of state and federal regulations about campus-wide food-related restrictions and cafeteria options. Many participants noted that students were choosing to try new foods, using the salad bar as a way to do so, and incorporating these healthier foods into their diets. Study participants familiar with high school environments reported that some students chose to eat healthier options on campus rather than going off-campus to eat at local fast food establishments.

Figure 11 illustrates examples of cafeteria managers' perceived impacts of the Initiative in terms of students' behavior. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 11.



However, there was some discussion that making the “healthier choice” may be due to the healthier option now being the default choice. Such school- or district-level decisions are sometimes seen as doing a disservice to the students, particularly high school students, as some study participants believe that teaching moderation rather than relying on restriction as a teaching tool could be a better approach to improving student health.

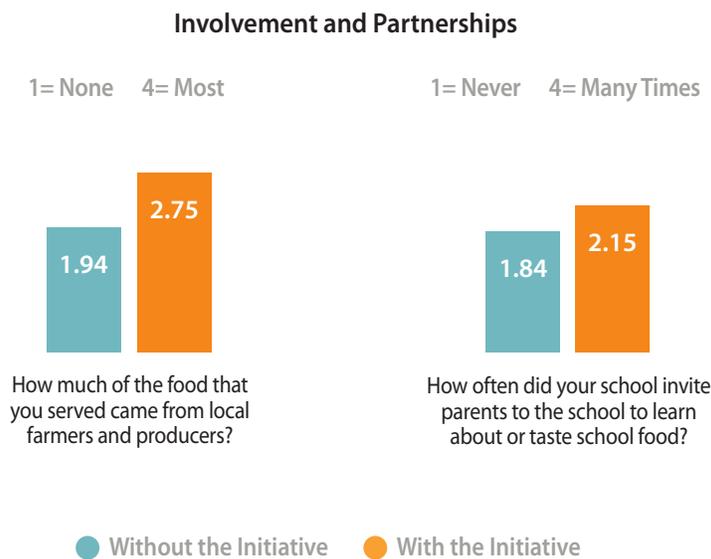


OUTCOME 7: RELATED COMMUNITY INVOLVEMENT AND PARTNERSHIPS.

The Initiative helped schools establish community involvement and partnerships around school food. Some study participants described ways the School Food Initiative helped schools and districts establish new partners and involve their immediate communities in efforts to improve school food and procurement. Though this theme was not articulated by a large proportion of study participants, many of these partnership stories were particularly compelling. For example, a local produce gleaning organization now provides a significant amount of produce to the school’s food service department. Study participants reported that the Initiative helped them identify several important partners and also provided funding to these key partners (such as the produce gleaning organization) so that they could in turn support the schools. The Initiative also helped schools come up with creative ways to engage their parent communities, such as inviting them to monthly meals.

Figure 12 illustrates an example of cafeteria managers’ perceived impacts of the Initiative in terms of community involvement and partnerships. These differences are statistically significant at the standard criterion of $p < .05$.

Figure 12.



“There is a nonprofit called Veggie Rescue that gleans local produce. And the School Food Initiative was very helpful in helping us set up a partnership with them. Our production kitchen has received about 16,000 pounds of fresh fruits and vegetables through Veggie Rescue.”

— Superintendent

In addition to these seven intended outcomes, study participants identified two additional outcomes of the Initiative: teachers' participation in school food and families' food literacy and related practices.

UNANTICIPATED OUTCOME 1: TEACHER PARTICIPATION IN SCHOOL FOOD.

The Initiative contributed to improving teacher participation in school food. Study participants believed the School Food Initiative influenced teachers and staff as well as students. Teachers and administrators ate more school food following improvements in the food quality. Some chose to purchase school meals and others to supplement their meals with the schools' salad bar offerings. Some teachers also engaged more with students around healthy habits and encouraged them to try some of the healthy options offered through the school meals programs. Teachers also requested healthier foods for staff parties and meetings, and some brought healthier options to school for their own meals.

UNANTICIPATED OUTCOME 2: FAMILIES' FOOD LITERACY.

The Initiative contributed to improving families' food literacy and related practices. The School Food Initiative also contributed to improving families' food literacy and related practices. Study participants felt parents were introduced to healthy food concepts and new food products simply through student exposure. They believed that parents' exposure to new school policies regarding sugar on campus improved their understanding of the value of limiting sugar intake. Schools also found creative ways of engaging families around school food, such as inviting parents to food-related events and publishing healthy cookbooks for parents. Some parents in the schools not currently engaged in these efforts became aware of them and requested similar improvements in their own children's schools.



THE SCHOOL FOOD INITIATIVE MOST INFLUENCED SCHOOLS WITH HIGH PROPORTIONS OF STUDENTS IN NEED AND THOSE HIGHLY ENGAGED IN THE INITIATIVE.

The findings indicate that both large and small school districts benefited from Initiative support, as did schools serving students of all ages. This means that school food efforts have impacts in a wide variety of school types. However, findings differed depending on student need and degree of school engagement with the Initiative. These differences had two characteristics. Figure 13 shows an example involving comparisons of less versus more engaged schools. As shown, cafeteria managers in more engaged schools presumed that some outcomes would have been worse without the Initiative than cafeteria managers in less engaged schools presumed. This finding suggests that more engaged schools perceived greater need for the Initiative services. Despite these differences in perception of how conditions would be in the absence of the Initiative, less and more engaged school managers appeared to agree on how conditions were in the presence of the Initiative.



Figure 13.

How often did you feel a sense of self respect in your job?

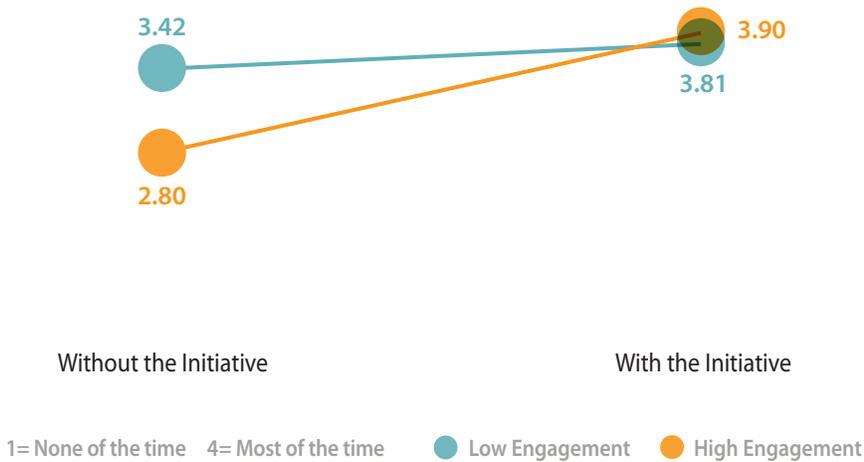
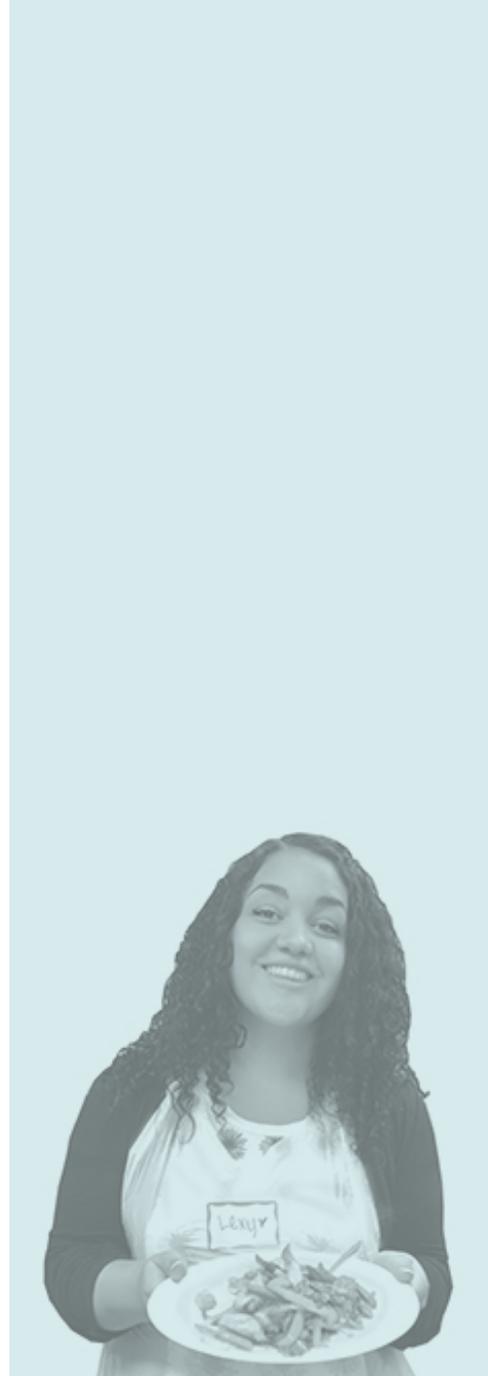
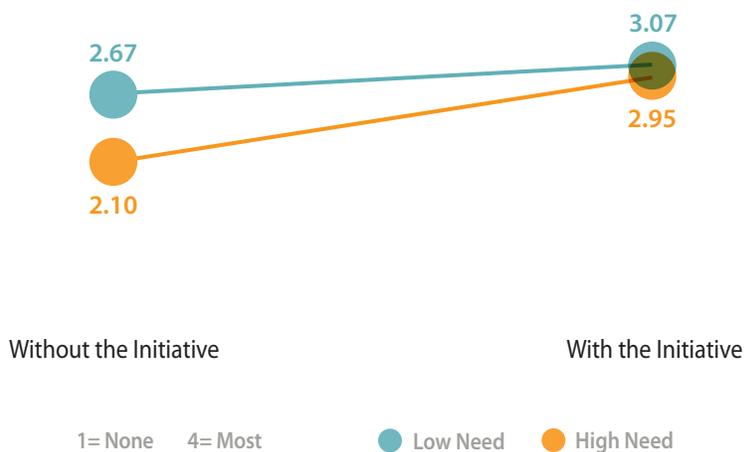


Figure 14 shows a similar finding related to whether a school had lower versus higher need (i.e., below or above average proportion of students eligible for free or reduced lunch). Cafeteria managers in low-need schools (schools with low proportions of high-need students) believed students would be more willing to try new foods than those in higher need schools regardless of the presence of the Initiative. However, managers in both types of schools agreed about students' willingness to try new foods in the presence of the Initiative, suggesting that the Initiative was able to close the initial gap in outcomes.

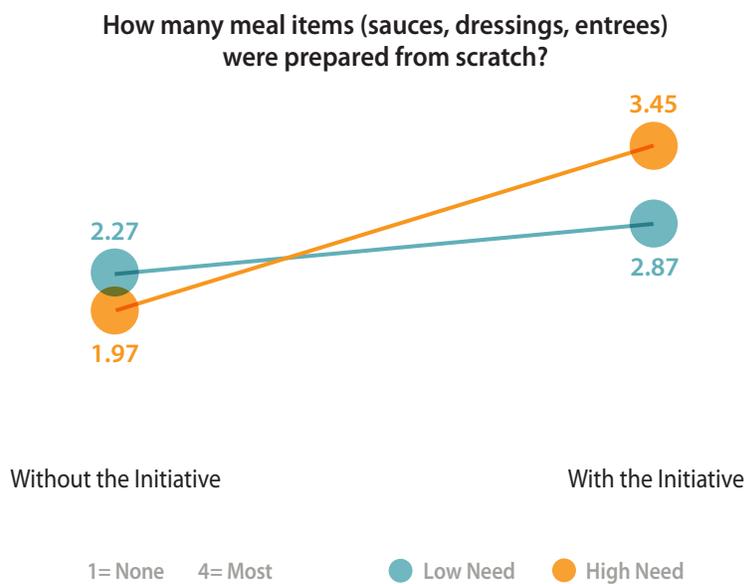
Figure 14.

How many students were willing to try new foods that your team offered?



Another pattern occurred for other outcomes. This pattern is similar to the one described above, and was found for schools with greater proportions of high-need students and for schools with greater engagement. Figure 15 uses preparing meal items from scratch as an example. The figure shows that cafeteria managers in high need (compared to low need) schools presumed that some outcomes would have been worse without the Initiative. However, they then reported that the Initiative helped to not only close this gap, but to surpass lower need schools. This pattern also occurred when comparing schools with greater versus lesser engagement. Specifically, cafeteria managers more highly-engaged schools (compared to lower-engaged schools) presumed things would have been worse without the Initiative, but saw outcomes as better with the initiative.

Figure 15.



Further, student improvements in food literacy were not mentioned as frequently by study participants associated with high schools and large schools as they were from those at elementary and middle schools and small schools. These improvements were also less likely to be referenced by study participants from North Santa Barbara County than those from other regions of the county. This is in large part due to the concentration of food literacy programming in elementary and junior high schools by the School Food Initiative.

See Appendix G for a presentation of all survey findings and F for a presentation of all findings related to the Change Over Time Analysis.

STUDY PARTICIPANTS FREQUENTLY PERCEIVED SPECIFIC INITIATIVE ACTIVITIES TO BE THE PRIMARY FACTORS INFLUENCING OUTCOMES.

Figure 16 below illustrates linkages people perceived between the Initiative activities and outcomes. Specifically, participants attributed improvements to food service facilities with the kitchen equipment and infrastructure grants and funding that district and school kitchens received. They made similar connections between these grants and what was offered to students in the school cafeterias.

Connections also were seen between the Culinary Boot Camps and improvements in the expertise and empowerment of food service personnel. Finally, study participants felt that the majority of the Initiative activities contributed to improvements in student food literacy, and most frequently attributed the outcome of improved student food literacy to the school gardens.

Figure 16: Perceived linkages (or relationships) between the Initiative activities and outcomes.

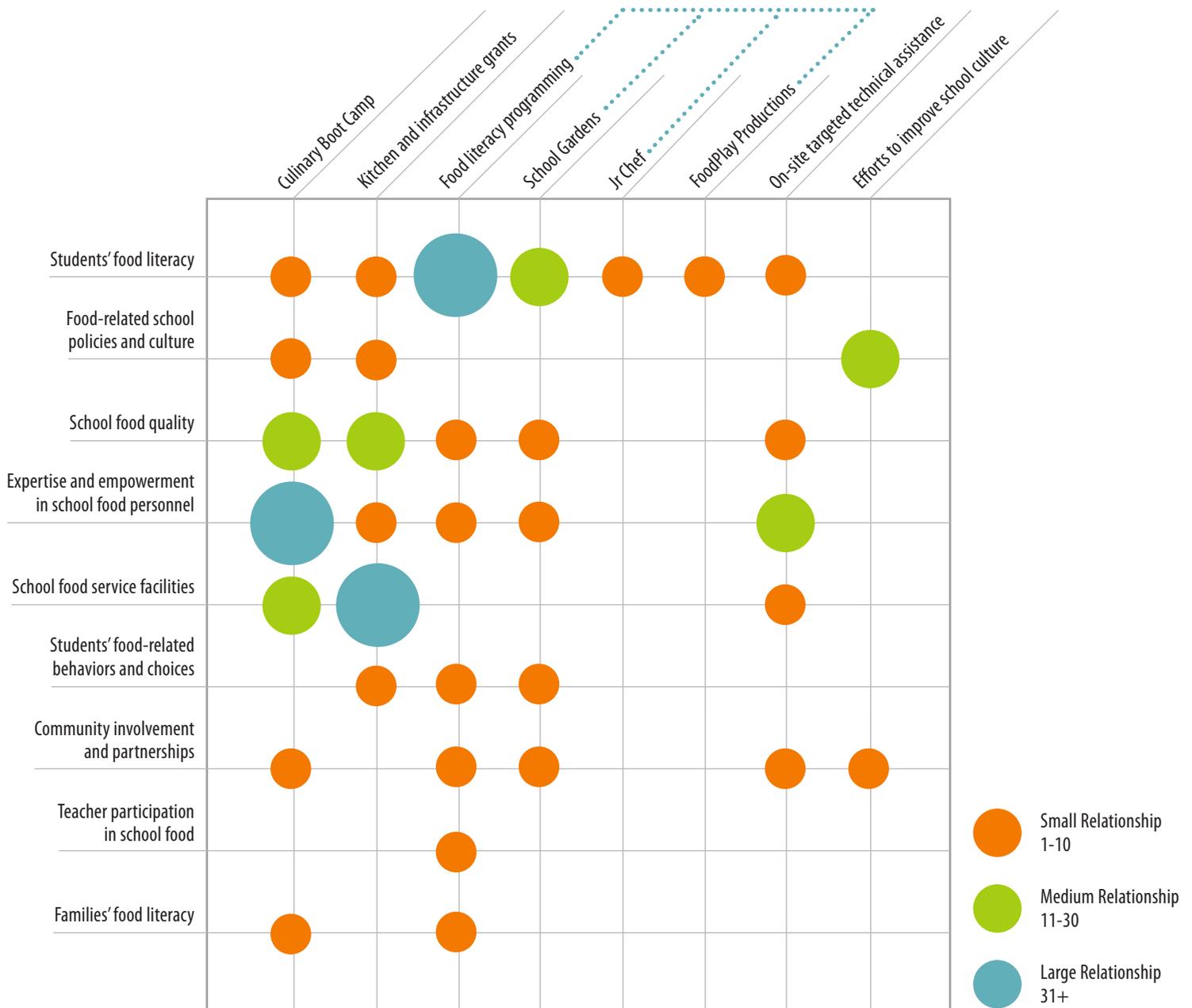


Figure 17 illustrates changes that resulted from the new attention paid to the quality of school food and child health in key school food environments: the school, the kitchen, and on the plate itself.

Figure 17: Changes in key school food environments before and after the Initiative.



QUESTION 3:

What are the barriers to and facilitators of Initiative-related change?

We asked study participants to describe challenges they faced in effecting these changes and ways they overcame these challenges. Each of the barriers and facilitators described below emerged from the study participants in response to these questions.

BARRIERS TO CHANGE

INITIAL RESISTANCE TO CHANGE

Students, school food personnel, and other key stakeholders (such as parents, teachers, and administrators) often initially resisted efforts related to healthier school food and eating. This initial resistance was ascribed to factors such as the taste of healthier foods, the additional work that scratch cooking was presumed to entail, a presumption of revenue loss, and a general fear of change. This resistance was generally overcome with time, though study participants acknowledged that finding a balance between taste and nutrition could be challenging. Early student resistance was described as initially manifesting as a drop in food sales, and therefore a revenue loss as expected, but participants also said that sales bounced back and frequently led to the generation of new income. As expected, student resistance was most frequently mentioned by study participants attached to Middle and High Schools.

“We were afraid of failure. We were used to doing the work one way and were now being encouraged to do it a different way. Change is really hard for people.”

— Food Service Staff



RIGIDITY OF FEDERAL AND STATE GUIDELINES AND RELATED POLICIES

Many of the school meals recipes provided by the School Food Initiative were not aligned to new Federal and State guidelines, and therefore were not useful in school and district kitchens. These regulations were felt to be overly restrictive, often limiting creativity, and were not conducive to scratch cooking. The generality of the guidelines was perceived as inappropriate, as some study participants felt that some students need more food than the guidelines allow for, while some need less food than the guidelines require. Further, study participants reported that some of the commodity foods offered to schools were not aligned to these guidelines. Study participants felt that while the intentions behind these guidelines were clearly positive, the reality of them was not beneficial to students and limited progress. Study participants also reported that restrictions related to fundraising (such as not being able to sell cookie dough as a fundraiser) led to a loss of revenue. These participants felt that schools were unable to identify equally successful fundraising options, which led to a general reduction in school budgets. This issue was raised in only a few interviews, but was extremely salient to participants who spoke of it.

CAFETERIA INFRASTRUCTURE

Improved school food is believed to have led to higher levels of student participation in school meals. There is a need for more personnel and for infrastructure to handle this higher demand. Specifically, schools need a more sophisticated point-of-sale (POS) system and more help serving students in order to efficiently and effectively meet this demand.

SCHOOL FOOD PERSONNEL EMPLOYMENT PRACTICES

School food personnel are not financially compensated or socially valued in a way that reflects the importance of their work to influencing student health. The issue goes beyond their paychecks. Low wages, lack of district-supported professional development, work schedules that limit hours to avoid paying benefits, and perceptions of the low social status of these staff led to high degrees of staff turnover, which in turn made implementing scratch cooking challenging. New staff needed to be trained in scratch cooking techniques and processes, and existing staff did not feel they could both train them and perform all their other job duties as well.



“The federal government is extraordinarily intrusive. Navigating state and federal regulations is very, very difficult, so it took hours and hours of work to set up something as simple as a salad bar. Often, the regulations get in the way of serving fresh, healthy farm to table food.”

— Superintendent

FACILITATORS OF CHANGE

SUPPORT AND INVOLVEMENT FROM KEY STAKEHOLDERS

The support of key individuals and stakeholder groups facilitated positive changes in school food and school food systems. Specifically, study participants noted that district-level food service directors and school and district leadership were instrumental in making change happen. These stakeholders advocated for systemic change and supported school food personnel in their efforts to make ground-level changes. Some also mentioned that community and parent support was important to facilitating change, and many reported that having student buy-in before implementation was vital.

PERSONAL BELIEF SYSTEMS

Many study participants reported that their personal belief systems and practices were aligned with the principles of the School Food Initiative and that this alignment helped them to spur change at the school and district levels.

INCREMENTAL CHANGE

Being encouraged and willing to make change slowly, rather than expecting immediate and monumental change of themselves and their students, generally facilitates success. Many spoke of the need to take small steps towards change in part to reduce fear of change among stakeholders. Food Service Directors were most likely to mention this concept as a facilitator to change.

ALIGNED COMMUNITY ATTENTION

Community-wide interest and nationwide attention being paid to healthier living assisted with efforts to effect change at the school and district levels. Study participants described aligned Federal and State policies as useful in helping to ensure that stakeholders understood the need to shift to healthier school food.

SHARED SKILL SET AND SHARED BELIEFS ABOUT IMPORTANCE OF HEALTHY FOOD

Training school food personnel together during the Culinary Boot Camps led them to feel similarly about the value of healthier cooking and share a similar level of expertise in the practices of scratch cooking. This common understanding and expertise was significant in efforts to effect change.



QUESTION 4:

What content and resources do schools and districts believe they need to know and have in order to sustain the Initiative-related efforts?

We asked study participants to discuss their sustainability plans and challenges. Each of the themes described below emerged from their responses to these questions.

A SENSE OF OPTIMISM REGARDING SUSTAINABILITY OF THESE EFFORTS WAS EXPRESSED BY MANY STUDY PARTICIPANTS.

Study participants felt that scratch cooking and a focus on food literacy would persist beyond the Initiative for a variety of reasons. In fact, some mentioned they already had plans in place to ensure that the shifts resulting from the School Food Initiative would be sustained. They reported that their Health and Wellness Committees, their on-the-ground partnerships, their grant and public funding, and their revised school and district budgets would ensure successful continuation of the efforts. They also referenced partnerships as a lever in sustaining funding for school gardens, continuing to provide fresh fruits and vegetables, and continuing to develop and train staff.

THE NEW WAY OF WORKING IS THE “NEW NORMAL.”

Practices related to scratch and healthier cooking are now systematized and part of the routine. Study participants felt that these practices were no longer daunting or cumbersome and were no longer perceived that way; rather, they were ingrained in school culture and community expectations. School food personnel who were initially resistant to change now fully support the shifts and do not want to regress.

“We now have a pretty solid, well-functioning Health and Wellness Committee in our district. I feel like the School Food Initiative got the ball rolling, and now it’s our job to carry the torch.” — Principal

CHAMPIONS OF THE CAUSE WILL CONTINUE PROGRESS.

Study participants believe that either they or someone on staff who has been instrumental in moving the work forward will not allow progress to unwind because they are personally tied to it and believe in its value.



However, despite this optimism, some study participants mentioned concerns about sustaining the efforts. They recognized that school environments and priorities constantly shift, and believe that school food priorities may be temporary. They also believe that adhering to these priorities will require additional funds, and they are unsure of where those additional funds will come from. Some participants' comments regarding sustainability of the Initiative's activities reflected both their satisfaction with the Initiative and the sense of loss they feel about it coming to an end.

SCHOOLS AND DISTRICTS WOULD BENEFIT FROM FURTHER SUPPORT FROM FUNDERS OR INITIATIVE PARTNERS TO INCREASE THE LIKELIHOOD OF SUSTAINABILITY.

The majority of study participants felt optimistic about sustaining the efforts of the Initiative beyond its support. However, several needs for future support surfaced during our conversations about sustaining practices. Future funding strategies could focus on the following four areas.

Ongoing professional development for new and existing staff

Training for staff, particularly new school food personnel but also teachers, was an expressed priority as a response to inevitable staff turnover. Resources put toward future training have the potential to offer substantial returns since training simultaneously builds concrete skills and spreads the vision of school food reform.

Funding for School Gardens

The value of the school gardens as a lever in developing students' food literacy was recognized by study participants who felt that additional support, in terms of people-resources and funding, are needed to continue these efforts.

Wellness Committee Support

District-level Wellness Committees were established and have instituted school-level policies that reinforce districts' values around maintaining healthy school environments. Committees would benefit from additional support in their efforts to implement these policies, retain focus and priority on efforts to improve school food and healthy school environments, and find solutions to fundraising and celebration challenges that surface as a result of changes.

Policy Support

Two of the primary challenges to implementing similar activities and sustaining their outcomes must be addressed at the system level. Districts would benefit from support to improve the compensation and employment structure of school food personnel. Schools would also benefit from support to better align State and National standards for school meals to the realities of the school environment and the benefits of scratch cooking. Standards should reflect a recognition that students have nutritional needs that are based on variables other than age/grade level (such as height and physical activity levels), and offer school food personnel more flexibility in their recipes.



QUESTION 5:

What are the promising practices of the School Food Initiative?

We identified several promising practices that may inform other organizations' efforts to conduct or fund similar work, preemptively overcome barriers to implementation, and sustain change.

REMAIN UP-TO-DATE ON THE SCHOOL FOOD ENVIRONMENT AND RELATED REGULATIONS.

School food quality is a trending issue nationally. Focus on this issue translates into frequent shifts in regulations and expectations. Improving school food requires understanding school politics and processes. It also necessitates understanding and operating within the realities in which school food personnel must operate.



CREATE AN OVERARCHING VISION AND STRATEGIC PLAN.

Preemptively develop a strategic plan and think about the work holistically. Develop a strategic plan and if necessary, an exit strategy before launching initiatives to ensure efforts are thoughtful and connected. Stay focused on the goal of improving children's lives. This focus will help all involved weather challenges related to change and keep stakeholders engaged. This plan can be adapted with ongoing feedback from engaged stakeholders.

CREATE A MULTI-PRONGED APPROACH TO SUPPORTING SCHOOL FOOD PERSONNEL, AS THEY ARE CRITICAL TO IMPROVING SCHOOL FOOD.

Provide training, funding, follow-up support, and a peer support mechanism to equip school food personnel with the necessary skillset, funding, equipment, infrastructure, and peer accountability system. Ongoing support from experts and peers helps food service personnel address new and ongoing challenges.



RECOGNIZE THE IMPORTANCE AND CONTRIBUTION OF SCHOOL FOOD PERSONNEL IN IMPROVING CHILDREN'S HEALTH AND WELL-BEING.

Include a training component that underscores the importance and contribution of school food personnel in improving children's health and wellbeing. Work to improve the employment policies, such as increased pay, access to benefits, and schedule flexibility, of this crucial workforce.

GET STAKEHOLDERS ON BOARD EARLY AND HOLD THEM ACCOUNTABLE FOR CHANGE.

Engage all stakeholder groups (parents, administration, coaches, teachers, students, and school food personnel) before launching an initiative to improve school food to increase the likelihood of initiative success. It is imperative that these engagement efforts consider students as one of the key stakeholder groups, particularly if the initiative is expected to influence high school students. Engaging them prior to rollout will create buy-in and ease implementation efforts. Develop mechanisms to hold stakeholders accountable for change, thereby fostering commitment and sustainability.



ENGAGE WITH THE YOUNG AND THE WILLING.

Identify readiness in stakeholders and in the community. Initiate activities with those who demonstrate an inclination toward food-related efforts first. These stakeholders will be more apt to overcome challenges and effect change. Their work has the potential to reset expectations in the community and quietly influence others to join the efforts. Consider implementing activities with younger students first. When students are provided healthy scratch-cooked school meals from a young age they can grow up in food literate school environments and expect healthy meals.



CONSIDER CONTEXT.

Consider school contexts as part of program planning, perhaps tailoring imitative activities to subgroups of schools. There is some indication that this work is particularly effective with schools that are highly engaged and with student populations of higher need (e.g. lower socioeconomic status).

EMBRACE CHANGE AND START SMALL.

Help stakeholders embrace change rather than fear it. The work of improving school food is often perceived as daunting, but with a coalition of supporters it can be easier than anticipated and gets easier with time. Encourage stakeholders to enter into the initiative with a spirit of open-mindedness. Helping stakeholders do this may be as simple as preemptively and openly acknowledging the fears and difficulties associated with change, and presenting examples that illustrate the change process. For example, encouraging them to offer salad bars to students is a relatively easy first step as it introduces students to healthy foods and the concept of choice.



ENGAGE POLICY-MAKERS AND ADVOCATES.

Be prepared to discuss relevant policy-level issues with key stakeholders who can support or impede change. Two key discussion topics are: the value of school food personnel, particularly ways to demonstrate their value through better compensation, ongoing professional development, and more respect; and the unintended consequences of school food regulations. These conversations with activists and policy-makers can contribute to system-level change in funding for public education and public health. School food improvement efforts will likely benefit from identifying and attempting to address these root challenges to this work.

DEVELOP AND SUSTAIN PERSISTENCE.

Develop and foster a sense of tenacity in your stakeholders. Some food service departments experienced a dip in revenue or initial resistance to healthy foods as a result of initial implementation of scratch-cooking techniques. Later many became profitable as a result of perseverance and creativity, and increased participation in the school meals program. Perseverance and patience are key to overcoming challenges related to improving and changing systems of school food.



EVALUATIVE ASSESSMENT

Evaluation Specialists worked with the Orfalea Fund leadership staff to define success for each of the Initiative’s primary activities, and impact for each of the initiative’s targeted outcomes. Twelve criteria to be evaluated surfaced from these discussions: five initiative activities, and seven outcomes. The five tested initiative activities are: Culinary Boot Camp, technical assistance/chef instructors, kitchen equipment and infrastructure grants, food-literacy programming, and culture of wellness support. The seven outcomes of interest are: school policies and culture, food service facilities, food quality and what is offered to students, the expertise and empowerment of food service personnel, students’ food-related behaviors and choices, food literacy and literacy practices, and community involvement and partnerships.

Each criteria to be evaluated was broken into sub-criteria, resulting in a total of 37 sub-criteria against which to evaluate the initiative.

ES used these definitions as the framework for an evaluation rubric. The rubric was reviewed and approved by the leadership team, and used to synthesize the findings from the various sources of data. See Appendix C for the full evaluation rubric, detailing the definitions of performance at each level of a four-point scale.

Figure 18 presents a synthesis of findings for each of the 12 evaluation criteria. Figure 19 presents a synthesis of our findings for each of the sub-criteria within these 12 evaluation criteria.

An evaluative rubric is a tool or set of guidelines that makes transparent how conclusions are made about overall program success and impact.

Figure 18: Rubric Findings by Evaluation Criteria.

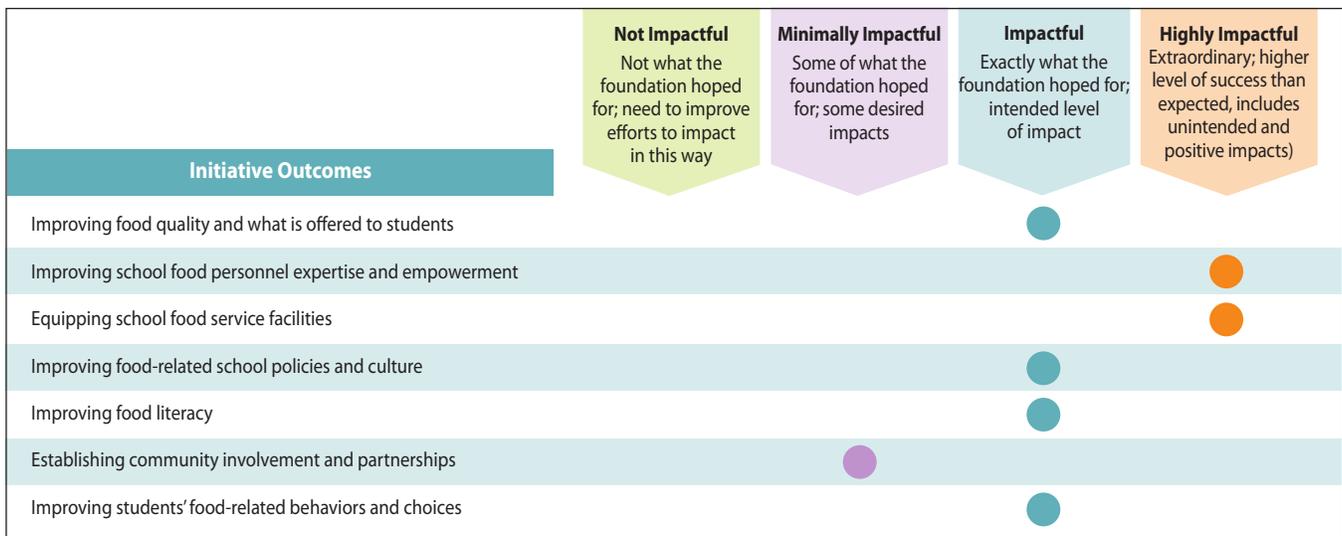
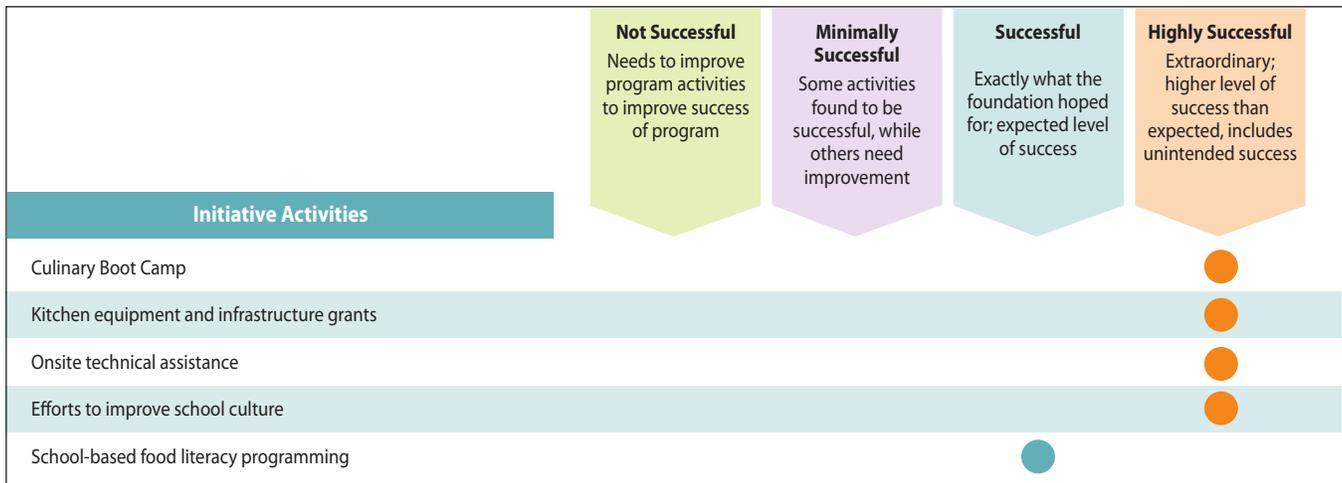


Figure 19: Rubric Findings by Evaluation Sub-Criteria

Initiative Activities	Not Successful Needs to improve program activities to improve success of program	Minimally Successful Some activities found to be successful, while others need improvement	Successful Exactly what the foundation hoped for; expected level of success	Highly Successful Extraordinary; higher level of success than expected, includes unintended success
EC1: Onsite technical assistance				
EC1.1: Chef Instructors are perceived as accessible and useful resources by food service managers.				●
EC 1.2: Chef Instructors help food service managers make improvements in systems thinking.				●
EC 1.3: Chef Instructors help food service managers make improvements in compliance and workflow efficiency.			●	
EC2: Culinary Boot Camp				
EC 2.1: Boot camp training is effective in increasing professionalism in food service personnel.			●	
EC 2.2: Boot camp training is effective in helping food service personnel understand the school food system and their role within it.				●
EC 2.3 : Boot camp training is effective in improving food service personnel culinary skills.				●
EC3: Kitchen equipment and infrastructure grants				
EC 3.1: Equipment provided by infrastructure grants is used to full capacity by school food personnel.				●
EC4: School-based food literacy programming				
EC 4.1: Students are highly engaged in the food literacy programming.			●	
EC 4.2: School staff and leadership are highly engaged in the food literacy programming.			●	
EC5: Efforts to improve school culture				
EC 5.1: Schools and districts have developed or amended their school food wellness policies based on initiative recommendations.				●
EC 5.2: The school community is aware of and adheres to healthier policies due to the established culture of wellness.			●	

Figure 19: Rubric Findings by Evaluative Sub-Criteria (continued)

Initiative Outcomes	Not Impactful Not what the foundation hoped for; need to improve efforts to impact in this way	Minimally Impactful Some of what the foundation hoped for; some desired impacts	Impactful Exactly what the foundation hoped for; intended level of impact	Highly Impactful Extraordinary; higher level of success than expected, includes unintended and positive impacts)
EC6: Improving food-related school policies and culture				
EC 6.1: School practices are aligned with research-supported best practices on food service.			●	
EC 6.2: School policies promote a culture of wellness and healthy eating.			●	
EC 6.3: School staff support the professionalization and empowerment of school food personnel.			●	
EC 6.4: School staff are engaged in school food and related efforts			●	
EC7: Equipping school food service facilities				
EC 7.1: Kitchens that received Initiative funding can support preparation, service and delivery of scratch cooked meals				●
EC8: Improving food quality and what is offered to students				
EC 8.1: Breakfast and lunch entrees are healthy.			●	
EC 8.2: Meal items are prepared from scratch.			●	
EC 8.3: Students are offered a variety of fresh fruits and vegetables.			●	
EC 8.4: Scratch-baked items meet federal and state guidelines for sugar, salt, and fat.				●
EC 8.5: Food waste is reduced.		●		
EC9: Improving school food personnel expertise and empowerment				
EC 9.1: Food service personnel experience a sense of empowerment.				●
EC 9.2: Food service personnel model principles of healthy eating.				●
EC 9.3: Food service personnel experience a high level of professionalism.				●
EC 9.4: Food service staff use the skills learned in culinary training in their professional work environment.				●
EC 9.5: Food service directors have knowledge of culinary business operations.				●
EC 9.6: Food service personnel employ their understanding of the importance of customer service.				●
EC10: Improving students' food-related behaviors and choices				
EC 10.1: Students are choosing healthy, scratch-cooked entrees over unhealthy a la carte or vending options.			●	
EC 10.2: Students are eager to try new foods and produce.			●	
EC 10.3: Students who bring foods from home are bringing healthy foods.			●	
EC 10.4: Students are drinking more water and less sugar-sweetened beverages.		●		
EC11: Improving food literacy				
EC 11.1: Students have a high degree of food literacy.			●	
EC 11.2: Students understand where their food comes from.			●	
EC 11.3: Students understand the importance of adequate hydration.			●	
EC 11.4: School staff have a higher degree of food literacy.			●	
EC12: Establishing community involvement and partnerships				
EC 12.1: Schools engage local farmers and producers in the school food systems for food needs.		●		
EC 12.2: Schools offer parents opportunities to engage in school food efforts.		●		

CONCLUSION

THE SCHOOL FOOD INITIATIVE HAD PROFOUND AND POSITIVE OUTCOMES.

The School Food Initiative has accelerated and supported change in personnel professionalism, as well as improved the quality of school meals, and increased students' exposure to, and acceptance of, healthy foods. School food personnel were better trained and equipped to engage in healthy cooking techniques, and school culture and policies were more aligned to the goal of improving students' health. Further, the Initiative impacts seem to be as relevant to students from lower socioeconomic status families (i.e., high need) as they are to those from higher socioeconomic status families (i.e., low need), though the Initiative's efforts may have more positively influenced high-needs students, young students, and students in schools that were heavily engaged with the initiative. These findings indicate that future similar support efforts have a strong likelihood of being valued and positively impacting intended stakeholders within a variety of contexts and settings, particularly those serving higher-need students. Study participants expressed commitment to continuing to support healthy eating efforts and sustaining positive changes for the good of students and school food personnel.



98%

Respondents reporting that efforts to improve school food impacted the community

100%

Respondents reporting that the Initiative contributed to these efforts

APPENDICES

APPENDIX A: GLOSSARY

Food-related behaviors: practices related to consumption, such as regularly eating dessert or salad.

Food-related choices: active choices related to consumption, such as choosing water over sugar-sweetened beverages, or choosing pizza over salad.

Food literacy: an understanding of where food comes from and ways in which food influences health.

Food quality: the quality characteristics of food such as nutrient value and production practices (organic vs. not organic).

School food personnel expertise: the skills and knowledge of district- and school-level staff hired to support school food systems.

School food personnel sense of empowerment: the feeling of authority, value, and power of district- and school-level staff hired to support school food systems.

School food service facilities: district- and school-based kitchens and cafeterias designed to serve students.

Community involvement around school food and health and wellness: awareness and engagement of schools' parent communities around efforts to improve school food.

Community partnership around school food and health and wellness: partnerships established and maintained to support the school food system.

Food-related school policies: policies designed to regulate food practices at schools.

Food-related school culture: the beliefs, perceptions, and attitudes about food at schools.

APPENDIX B: EXPANDED METHODS

Ongoing collaboration between Evaluation Specialists (ES) and the Orfalea Fund (TOF) supported the development and refinement of all the following elements of the evaluation. Working collaboratively with TOF staff, ES identified the goals for the evaluation and the specific questions it would be designed to answer. Through this process we determined a mixed-methods approach would best suit this evaluation. The following stages detail the methods we undertook for each component of this evaluation.

Interviews with Stakeholders

- 1] **Develop qualitative interview questions and guide** — The goal of the interview component of the evaluation was to be able to answer questions from the perspective and real-world experiences of school and district staff who were engaged in the Initiative. We drafted and collected feedback from TOF and TOF partners (TOF’s Chef Instructors) on the interview questions and semi-structured facilitation guide. The semi-structured approach to interviews results in data that addresses what is most important or striking to study participants, one of the benefits of a qualitative evaluation (Hollway & Jackson, 2000).
- 2] **Identify a stratified sample** — We identified district and school characteristics relevant to the evaluation questions and used this information to develop a stratified sampling frame to guide recruitment of the sample (Creswell, 1998). This method contributes to the evaluation’s validity by ensuring that different perspectives regarding Initiative experiences were gathered. We sought to recruit schools and districts that differed in:
 - 🍏 Geography (North, Mid and South Santa Barbara County) and district
 - 🍏 Level of engagement with the School Food Initiative (five point scale)
 - 🍏 School enrollment (higher than average, lower than average)
 - 🍏 School grade levels (elementary, middle, high)
 - 🍏 Percent of students eligible for free or reduced price lunch (higher than average, lower than average)

TOF staff then identified districts and schools that maximized diversity across these dimensions, and engaged the six selected district superintendents. Each of these superintendents agreed to have their district participate in the evaluation and communicated this agreement to the school principals and the district food service directors. Food service directors were asked to select a school-level food service staff member to participate in the evaluation, and principals were asked to select a teacher to participate in the evaluation. TOF staff sent each of these individuals an initial email inviting them to participate in the evaluation. Those who did not respond to these invitations did not participate in the evaluation.

- 3] **Recruit interview participants** — Following study introduction and recruitment by TOF staff, ES sent selected study participants a confirmation email and an information sheet. This document described the evaluation’s purpose and procedures, what participation entailed, and steps taken to protect their privacy. Incentives of twenty-five dollar gift cards were offered to food service staff in one district, as these staff members were not permitted to participate in the interview during their regular working hours. Before beginning an interview, ES staff confirmed that study participants had reviewed the information sheet and addressed any questions, ensuring that their participation was fully informed and voluntary.

4] **Conduct interviews** — We conducted a total of 46 in person and phone interviews with 6 superintendents, 9 teachers, 4 chef instructors, 9 principals, 12 food service staff members, and 6 food service directors. Of the 46 interviews conducted, 27% of the schools engaged were in North Santa Barbara County, 50% were in South Santa Barbara County, and 23% were in Mid Santa Barbara County. Forty-seven percent of the schools engaged served a higher than average proportion of students that were eligible for free or reduced lunch, and the remaining 53% served a lower than average proportion of these students. Fifty-three percent of the schools served elementary students, 17% served middle school students, and 30% served high school students. Seventy percent of the engaged schools were larger than average for the county, and the remaining were smaller than average. None of the engaged schools had not been engaged with the School Food Initiative in some way, though 17% were engaged initially and then not further engaged, 17% were sporadically engaged, 50% were consistently engaged, and 17% were highly engaged. Schools and districts determined their own levels of engagement with the Initiative; TOF staff created the five-point scale of engagement. As indicated in the table below, the final sample was reflective of the intended sample in each stratum of interest.

	Intended	Actual
Full Sample	61	46 (75% Response Rate)
Chefs	4	4 (100% Response Rate)
District-Level Staff	12	12 (100% Response Rate)
School-Level Staff	45	30 (67% Response Rate)
School-Level Characteristics		
School Region		
North County	27%	27%
South County	47%	50%
Mid County	27%	23%
Student Need (Proxy: % of students eligible for free/reduced lunch)		
Higher Need	53%	47%
Lower Need	47%	53%
School Level		
Elementary	60%	53%
Middle	20%	17%
High	20%	30%
School Enrollment		
Larger than average	67%	70%
Smaller than average	33%	30%
Level of Engagement with the School Food Initiative		
Never engaged	0%	0%
Engaged initially, but not further	13%	17%
Sporadic engagement	20%	17%
Consistent engagement	47%	50%
Highly engaged	20%	17%

Interviews were digitally recorded and professionally transcribed, and the interviewers took notes on key ideas during and immediately following each interview. Two interviews were not transcribed due to difficulties with the recording or interviewee request. However, key ideas captured via field notes taken immediately following this interview were represented in transcribed interviews with other study participants.

- 5] **Conduct data analyses** — To conduct a traditional thematic analysis to surface key themes we first created a codebook to capture responses directly related to the overarching evaluation questions via line-by-line coding of three randomly-chosen transcripts. In an inductive thematic coding process, additional codes representing themes were created as they emerged from the data by independently coding three additional randomly-chosen transcripts.

A “theme” is an idea that both elucidates something significant about the School Food Initiative in a particular study participant’s account, and is common across multiple cases and thus likely to apply beyond this data set (Ayres, Kavanaugh, & Knafel, 2003). Each transcript was first coded for themes, then each theme was coded into sub-themes.

Thematic trends were identified across all study participants, and also identified across subgroups of participants based on respondent characteristics, school characteristics, and district characteristics, to enable between-group comparisons. Major themes were identified, as were contradictions and negative evidence. Field notes were reviewed to validate findings. Analyses were conducted with Dedoose Version 5.0.11 qualitative analysis software.

Analysis of Change Over Time

The Orfalea Fund staff collected pertinent output data regularly from schools and districts throughout the School Food Initiative program cycle. A list of all data collected in this process is presented below.

DISTRICT LEVEL

- How many Boot Camp recipes are used on the lunch menu per month?
- How much financial support does the District General Fund contribute to the Food Service Dept per school year?
- Is the Food Service department profitable?
- What is the estimated amount of revenue generated from catering?
- How many times per week is processed cheese served at lunch?
- How many times per week is juice offered at breakfast?
- How many times per week is protein served at breakfast?
- How many times per week is salad bar offered?
- How many times per week is flavored milk offered at lunch?
- Number of entrees offered at lunch to Elementary School students
- What percentage of meats served per week are whole muscle versus processed?
- What percentage of fresh produce is processed in-house?
- How many sauces made from scratch are offered each month?
- How many times per week is juice served at lunch?
- How many times per month are healthy baked goods prepared from scratch?
- How many scratch-made dressings are offered each month?
- How many times per week is flavored milk offered at breakfast?
- How many times per month are canned fruits served?
- How many breakfast cereals are served that have less than 8 grams of sugar per serving?
- How many times per month are vegetarian entrees offered at lunch?
- How many Boot Camp recipes are used on the lunch menu per month?
- How many times per month is dessert offered at lunch?
- What percentage of fresh produce is locally grown?
- Number of free and reduced meals served at lunch
- Number of adults served at breakfast
- Number of free and reduced meals served at breakfast
- Number of paid meals served at breakfast
- Number of paid meals served at lunch
- Number of adults served at lunch
- How many minutes is lunch period?
- What is the average food cost per lunch?
- How many weeks are there on the breakfast cycle menu?

SCHOOL LEVEL

- Does the kitchen have a working white board?
- How many times per month are Boot Camp materials being referenced?
- How many Food Service Workers express desire to institute achievable improvements?
- How many Food Service Workers report making changes in personal behavior after Boot Camp?
- How many Food Service Workers request to do more scratch cooking after Boot Camp?
- How many Food Service Workers have participated in Boot Camp?
- How many Food Service Workers demonstrate mastery of knife skills after Boot Camp?
- How many lunch entrees are offered to Middle School or Junior High School students?
- How many times per week is pizza served at lunch?
- How many lunch entrees are offered to High School students?
- Are a la carte food and beverages offered at lunch?
- How many times per week is processed cheese served at lunch?
- How many times per week is salad bar offered?
- How many times per week is flavored milk offered at lunch?
- How many lunch entrees are offered daily to Elementary School students?
- What percentage of fresh produced is processed in-house?
- How many sauces made from scratch are offered each month?
- How many whole grain items are served per month?
- How many scratch-made dressings are offered each month?
- How many times per month are vegetarian entrees offered at lunch?
- How many times per month is dessert offered at lunch?
- Does the kitchen and cafeteria compost kitchen waste and food scraps?
- Are disposable utensils, trays and other dinnerware used in the cafeteria?
- How many days per week do Food Service Workers wear chef coats?
- Is the kitchen equipped to maximize healthy food production and/or service?

We cleaned and compiled these data, and assessed change over time on key output variables using Generalized Estimating Equations (GEE) as the statistical approach. GEE is a regression procedure that applies the generalized linear model to multilevel data. GEE has flexibility that made it well-suited to these analyses. First, GEE analyses can be adapted to a variety of data types, including ordinal, linear, and binary distributions. Second, GEE avoids incorrect results due to misspecification of the covariance matrix. Specifically, GEE is robust to violations of covariance matrix assumptions. Further, the data analyst can choose from a variety of assumptions, allowing the selection of the best-fitting matrix.

Survey with Cafeteria Managers

We designed and launched an online survey that was aligned to the initiative’s evaluative rubric (Appendix C). The survey was designed using a self-estimated counterfactual design, a design proven to provide reliable estimates of short-and long-term change.

All cafeteria managers that led school food efforts in public schools across Santa Barbara County and that had at least some interaction with the initiative were invited to participate. Eighty-four schools led by 67 unique cafeteria managers fit these criteria. District supervisors were made aware of the survey and were asked to encourage the managers to participate. Invitations were sent directly from Evaluation Specialists. Cafeteria managers were offered 25-30\$ gift cards (depending on the timing of their survey completion) in exchange for their participation. Forty-five of these cafeteria managers (67%) responded to the survey. The following table presents a description of the participating respondents.

	Invited	Actual
Full Sample	67	45 (67%)
Need		
Higher than average proportion of students eligible for free/reduced lunch.	47%	57%
Lower than average proportion of students eligible for free/reduced lunch.	53%	43%
Size		
Higher than average enrollment	44%	64%
Lower than average enrollment	56%	36%
School Level		
Elementary	72%	76%
Middle	15%	18%
High	13%	7%
Level of Engagement with the School Food Initiative		
Engaged initially, and then not engaged	35%	39%
Sporadic engagement	46%	39%

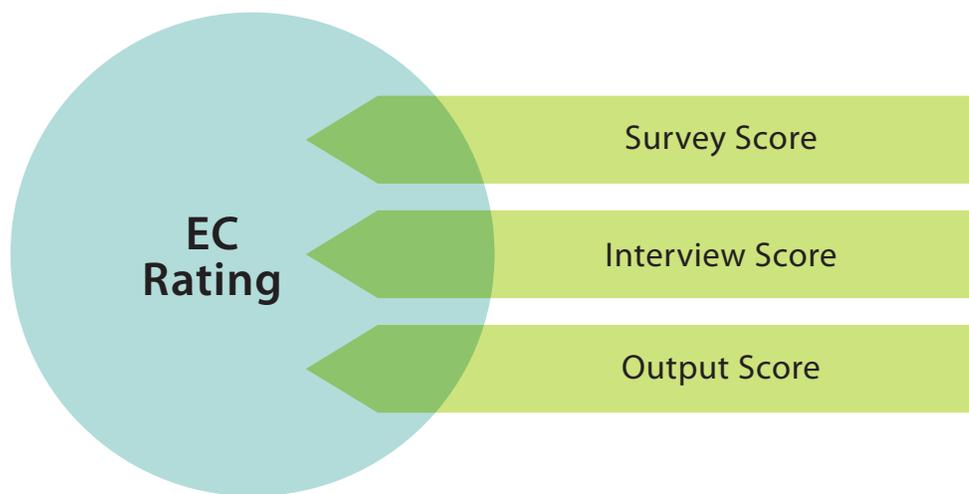
GEE analysis compared respondents' ratings on survey items about conditions in the presence of TOF versus what conditions would be like without TOF. We did this using a predictor variable representing with versus without TOF (coded as 0 or 1). Our hypothesis was that respondents would rate conditions with TOF as superior compared to what they would be without TOF. Following this, we assessed whether these positive outcomes differed depending on school size, school need, school level, and level of school engagement with Initiative. We did this by creating dichotomized variables for each of these, and then adding interaction terms for each to the GEE analysis. For example, for school size we added the interaction of school size X with/without TOF.

For all analyses, we chose the best fitting covariance matrices, which were either exchangeable, independent, or unstructured. We considered a finding to be meaningful when it met the standardly accepted criteria of $p < .05$.

Estimates of change were also calculated between groups (school size, school need, school level, and level of school engagement with Initiative) to assess the influence of group participation on perception of change. We then chose the best fitting covariance matrices, which were either exchangeable, independent, or unstructured.

Evaluative Rubric Application

An evaluative rubric serves to make transparent the evaluative criteria (EC) against which a program will be evaluated. Data taken from each component of the evaluation was applied against this rubric. Because we had multiple sources of data, we had to establish the priority of each source. Priority was established based on the reliability of each data source.



All data were converted to ratings on the four-point scales. Two evaluators analytically applied the rubric to the qualitative data, independently assigning ratings of success and value at the sub-criteria level. The two evaluators then worked together to discuss discrepancies in scores and revise them until agreement, or inter-rater reliability, was established. Average survey scores for questions aligned to the sub-criteria were computed to establish ratings of success and impact based on these data. Gains over time in the data collected by TOF were computed to establish ratings of success and impact on these data. We then mapped the data against the subcriteria, considered source weightings, and computed overall scores.

Each source of data (described above) was analyzed separately and included in the rubric application process. While all three sources of data were considered valuable, the judgment was made to more heavily weight the data from the surveys and interviews than the data taken from the Change Over Time Analysis set. This judgement was made due to the ways in which the TOF data were collected and the degree of missing data. To confirm that this judgement did not produce potentially inaccurate results, sensitivity analyses were conducted. These varied how much weight the different data sources were given, and found that the findings remained consistent.

APPENDIX C: EVALUATIVE RUBRIC

Purpose of the rubric:

Make transparent the evaluative criteria (EC) that the evaluator will use to assess the success of various initiative components and the impact of the initiative overall.

Two Evaluation Questions

1. How successful was the Initiative?
2. How impactful was the Initiative?

Scales of Evaluation: Success Scale and Impact Scale

A. Success Scale: How successful was the Initiative?

1. Not Successful (need to improve program elements to improve success of program)
2. Minimally Successful (some elements found to be successful, while others need improvement)
3. Successful (exactly what the foundation hoped for; expected level of success)
4. Highly Successful (extraordinary; higher level of success than expected, includes unintended success)

B. Impact Scale: How impactful was the Initiative?

1. Not Impactful (not what the foundation hoped for; need to improve)
2. Minimally Impactful (some of what the foundation hoped for; some desired impacts)
3. Impactful (exactly what the foundation hoped for; intended level of impact)
4. Highly Impactful (extraordinary; higher level of success than expected, includes unintended and positive impacts)

Twelve Evaluative Criteria (EC)

How successful were each of the overarching program elements? (rated using Success Scale presented above)

EC 1: Onsite Technical Assistance: Direct school-specific support

EC 2: Boot camp/Culinary Training

EC 3: School-based food literacy programming (junior chef day, food play, gardens, salad bar hosts, etc.)

EC 4: Funding/Infrastructure grants

EC 5: Supporting Culture of Wellness on School Campus (parent engagement, wellness committee, LCAP, etc.)

How impactful was the Initiative in each of the intended outcome domains? (rated using Impact Scale presented above)

EC 6: Improving food-related school policies and culture

EC 7: Equipping food service facilities

EC 8: Improving food quality and what is on the plate

EC 9: Training and empowering food service professionals

EC 10: Improving students' food-related behaviors and choices

EC 11: Improving food literacy and food literacy practices (understanding the story of our food and its impact on health, the environment, and community)

EC 12: Establishing community involvement and partnerships

37 Evaluative Sub-Criteria

- EC 1.1 - EC 1.3
- EC 2.1 - EC 2.3
- EC 3.1
- EC 4.1 - EC 4.2
- EC 5.1 - EC 5.2
- EC 6.1 - EC 6.4
- EC 7.1
- EC 8.1 - EC 8.5
- EC 9.1 - EC 9.6
- EC 10.1 - EC 10.4
- EC 11.1 - EC 11.4
- EC 12.1 - EC 12.2

EC1: Onsite technical assistance/direct school-specific support	
Rating	Evaluative Criteria
Highly Successful	<p>EC1.1: Chef Instructors are perceived as accessible and useful resources by a majority of food service managers. They provide technical assistance, moral support and accountability to food service staff, and encourage them to engage in ongoing professional development. They are an accessible and valuable go-to resource for food service staff for help with adapting recipes, using new equipment, and marketing healthier meals.</p> <p>EC 1.2: Chef Instructors help a majority of food service managers make improvements in systems thinking. They help food service staff understand the system of school food that includes procurement, receiving, producing, marketing, and avoiding being a deficit-run department.</p> <p>EC 1.3: Chef Instructors help a majority of food service managers make improvements in compliance and workflow efficiency. They help food service staff use available resources (like the UDSA food buying guide, LunchBox platform and Nutrikids), understand and comply with regulations, and connect the dots between regulations and practice. They help food service staff identify ways to make the food preparation and delivery system even more efficient.</p>
Successful	<p>EC 1.1: Chef Instructors are perceived as accessible and useful resources by many food service managers. They provide technical assistance and accountability to food service staff, and encourage them to engage in ongoing professional development. They are an accessible and valuable go-to resource for food service staff for help with adapting recipes, and using new equipment.</p> <p>EC 1.2: Chef Instructors help many food service managers make improvements in systems thinking. They help food service staff understand the system of school food that includes procurement, receiving, and producing.</p> <p>EC 1.3: Chef Instructors help many food service managers make improvements in compliance and workflow efficiency. They help food service staff use available resources (like the UDSA food buying guide, LunchBox platform and Nutrikids), understand and comply with regulations, and connect the dots between regulations and practice.</p>
Minimally Successful	<p>EC 1.1: Chef Instructors are perceived as accessible and useful resources by a few food service managers, though there are quite a few exceptions. They provide technical assistance, and are an accessible go-to resource for food service staff.</p> <p>EC 1.2: Chef Instructors help a few food service managers make improvements in systems thinking, though there are quite a few exceptions. They help food service staff understand the procurement system of school food.</p> <p>EC 1.3: Chef Instructors help a few food service managers make improvements in compliance and workflow efficiency, though there are quite a few exceptions. They help food service staff use available resources (like the UDSA food buying guide, LunchBox platform and Nutrikids).</p>
Not Successful	<p>There is little or no evidence that the Chef Instructors were accessible or useful, or that the support they offered helped food service managers make improvements in systems thinking, compliance, or workflow efficiency.</p>

EC2: Boot Camp/Culinary Training

Rating	Evaluative Criteria
Highly Successful	<p>EC 2.1: Boot camp training is effective in increasing professionalism in a majority of food service staff. Food service staff see their work in a more systemic way that includes procurement, receiving, producing, and avoiding being a deficit-run department because of their involvement in Boot Camp, and feel that Boot Camp encouraged them to set professional goals. Boot camp leads to improvements in marketing and customer service such as lighting, eating environment, artwork, etc. Food service staff always present themselves in a way that is aligned to the initiative/models of healthy behavior presented at Boot Camp. This level of professionalism is expected of newly hired staff and those that did not attend the training.</p> <p>EC 2.2: Boot camp training is effective in helping a majority of food service staff understand the school food system and their role within it. Boot camp helps food service staff understand the big picture of school food as both a business and an entitlement program for students in need, and helps them feel connected to the larger movement of school food reform and improving students' lives. This understanding is passed on to newly hired staff and those that did not attend the training.</p> <p>EC 2.3: Boot camp training is effective in improving a majority of food service staffs' culinary skills. Acquired skills include scratch cooking, thawing, ordering, ratios, time management, and prioritization. Skills acquired at BootCamp are passed on to newly hired staff and those that did not attend the training.</p>
Successful	<p>EC 2.1: Boot camp training is effective in increasing professionalism in many food service staff. Food service staff see their work in a more systemic way that includes procurement, receiving, producing, and avoiding being a deficit-run department because of their involvement in Boot Camp, and feel that Boot Camp encouraged them to set professional goals. Boot camp leads to improvements in marketing and customer service such as lighting, eating environment, artwork, etc. Food service staff normally present themselves in a way that is aligned to the initiative/models of healthy behavior presented at Boot Camp.</p> <p>EC 2.2: Boot camp training is effective in helping many food service staff understand the school food system and their role within it. Boot camp helps food service staff understand the big picture of school food as both a business and an entitlement program for students in need, and helps them feel connected to the larger movement of school food reform and improving students' lives.</p> <p>EC 2.3: Boot camp training is effective in improving many food service staffs' culinary skills. Acquired skills include scratch cooking, thawing, ordering, ratios, time management, and prioritization.</p>
Minimally Successful	<p>EC 2.1: Boot camp training is effective in increasing professionalism in a few food service staff, though there are quite a few exceptions. Food service staff see the work of school food in a more systemic way that includes procurement, receiving, and producing, because of their involvement in Boot Camp. Food service staff sometimes present themselves in a way that is aligned to the initiative/models of healthy behavior presented at Boot Camp.</p> <p>EC 2.2: Boot camp training is effective in helping a few food service staff understand the school food system and their role within it, though there are quite a few exceptions. Boot camp helps food service staff understand the big picture of school food as both a business and an entitlement program for students in need.</p> <p>EC 2.3: Boot camp training is effective in improving a few food service staffs' culinary skills, though there are quite a few exceptions. Acquired skills include scratch cooking, thawing, ordering, and ratios.</p>
Not Successful	<p>There is little or no evidence that the the Initiative Boot Camp was successful in increasing staff professionalism, helping staff understand the systems of school food, or improving staff's culinary skills.</p>

EC3: Funding/Infrastructure Grants	
Rating	Evaluative Criteria
Highly Successful	EC 3.1: Equipment provided by infrastructure grants is consistently used to full capacity by school food staff. New equipment and upgrades enable food service staff to create a majority of foods from scratch, more efficiently and economically. Use of equipment enables food service staff to consistently offer high-quality foods and variability of what's on the plate.
Successful	EC 3.1: Equipment provided by infrastructure grants is commonly used by school food staff. New equipment and upgrades enable food service staff to create more foods from scratch, more efficiently and economically. Use of equipment enables food service staff to normally offer high-quality foods and variability of what's on the plate.
Minimally Successful	EC 3.1: Equipment provided by infrastructure grants is occasionally used by school food staff, though there are quite a few exceptions. New equipment and upgrades enable food service staff to create a few foods from scratch, more efficiently and economically. Use of equipment enables food service staff to occasionally offer high-quality foods and variability of what's on the plate.
Not Successful	There is little or no evidence that the funding and grants provided by the Initiative were successful in helping schools with their scratch cooking efforts.

EC4: School-based food literacy programming (food play, junior chef day, salad bar hosts, gardening and gardening assistance)	
Rating	Evaluative Criteria
Highly Successful	EC 4.1: A majority of students are highly engaged in the food literacy programming (food play, junior chef day, gardening program). They are enthusiastic about the programs and proactively involved, sometimes taking leadership roles in the programs. EC 4.2: A majority of school staff and leadership are highly engaged in the food literacy programming. They find value in the programs, proactively integrate them into their curriculum, and convey the value to parents and the community. They have established programs or practices that identify and highlight a fruit and vegetable of the month.
Successful	EC 4.1: Many students are engaged in the food literacy programming (food play, junior chef day, gardening program). They are enthusiastic about the programs and involved. EC 4.2: Many school staff and leadership are supportive and engaged in the food literacy programming. They find value in the programs and perceive the curriculum as helpful rather than an additional burden.
Minimally Successful	EC 4.1: Some students are involved in the food literacy programming (food play, junior chef day, gardening program), though there are quite a few exceptions. EC 4.2: Some school staff and leadership are involved in the food literacy programming, though there are quite a few exceptions.
Not Successful	There is little or no evidence that the food literacy programs encouraged by the Initiative were successful in engaging students and school staff in food literacy programs.

EC5: Supporting culture of wellness on school campuses

Rating	Evaluative Criteria
Highly Successful	<p>EC 5.1: Schools and districts have developed or amended a majority of their school food wellness policies based on initiative recommendations. Schools reviewed and amended their wellness policy to systematically incorporate and implement recommended school food wellness policies.</p> <p>EC 5.2: A majority of the school community is aware of and adheres to healthier policies due to the established culture of wellness. Parents engage in the culture by embracing and sometimes exceeding related policies. Out of school time activities and after-school programs order healthier snacks and refreshments. Fundraisers do not rely on unhealthy foods. Policies related to healthy fundraisers and celebrations are being followed with little resistance. Schools have found a way to deal with resistance as teaching moments rather than infractions.</p>
Successful	<p>EC 5.1: Schools and districts have developed or amended many of their school food wellness policies based on initiative recommendations. Schools reviewed and amended their wellness policy to incorporate and implement recommended school food wellness policies.</p> <p>EC 5.2: Many members of the school community are aware of and adheres to healthier policies due to the established culture of wellness. Parents engage in the culture by adhering to policies. Out of school time activities and after-school programs order healthier snacks and refreshments. Fundraisers rarely rely on unhealthy foods. Policies related to healthy fundraisers and celebrations are being followed with little resistance.</p>
Minimally Successful	<p>EC 5.3: Schools and districts have developed or amended some of their school food wellness policies based on initiative recommendations, though there are quite a few exceptions. Schools reviewed and amended their wellness policy to develop some recommended school food wellness policies.</p> <p>EC 5.3: Some of the school community is aware of and adheres to healthier policies due to the established culture of wellness, though there are quite a few exceptions. Parents have been informed of the new policies. Policies related to healthy fundraisers and celebrations are sometimes established and followed.</p>
Not Successful	<p>There is little or no evidence that the school wellness support provided by the Initiative was successful in improving food wellness policies and/or making the community aware of these policies.</p>

EC6: Improving food-related school policies and culture

Rating	Evaluative Criteria
Highly Impactful	<p>EC 6.1: A majority of school practices are aligned with research-supported best practices on food service. Students have sufficient time to receive and consume meals. Recess may be before lunch and breakfast may be after the bell/in the classroom, and cafeterias are designed to be inviting. Schools no longer support vending machine use and have removed unhealthy a la carte options. Schools have installed hydration stations and financially support school gardens. School food offerings exceed minimum federal and state quality and nutrition standards.</p> <p>EC 6.2: A majority of school policies promote a culture of wellness and healthy eating. Schools have adopted and incorporated wellness policies into their LCAPs. School and district staff as well as PTOs and PTAs are advocates for healthier school meals, healthier fundraisers and celebrations, and workplace wellness initiatives. Policies related to healthy fundraisers and celebrations are being followed with little resistance.</p> <p>EC 6.3: A majority of school staff support the professionalization and empowerment of school food staff. School staff express appreciation for food service staff and understand the influence they have on child health. Most food service staff are in full-time positions and receive benefits.</p> <p>EC 6.4: A majority of school staff are engaged in school food and related efforts. They make and support each other in making healthier food and snack options, partake in school food themselves, drink water rather than sugar-sweetened beverages, and encourage students to participate in school lunch.</p>
Impactful	<p>EC 6.1: Many school practices are aligned with research-supported best practices on food service. Students have sufficient time to receive and consume meals. Recess may be before lunch and breakfast may be after the bell/in the classroom, and cafeterias are designed to be inviting. Schools no longer support vending machine use and have removed unhealthy a la carte options. Schools have installed hydration stations and school gardens. School food offerings meet minimum federal and state quality and nutrition standards.</p> <p>EC 6.2: Many school policies promote a culture of wellness and healthy eating. Schools have adopted and embraced wellness policies. School and district staff are advocates for healthier school meals, healthier fundraisers and celebrations, and workplace wellness initiatives. Policies related to healthy fundraisers and celebrations are being followed with little resistance.</p> <p>EC 6.3: Many school staff support the professionalization and empowerment of school food staff. School staff express appreciation for food service staff and understand the influence they have on child health. Food service staff are offered more and consistent labor hours and potentially benefits.</p> <p>EC 6.4: Many school staff are engaged in school food and related efforts. They make and support each other in making healthier food and snack options, and encourage students to participate in school lunch.</p>
Minimally Impactful	<p>EC 6.1: Some school practices are aligned with research-supported best practices on food service, though there are quite a few exceptions. Students may have sufficient time to receive and consume meals or recess may be before lunch and breakfast may be after the bell/in the classroom. Schools have limited their support of vending machine use and reduced unhealthy a la carte options.</p> <p>EC 6.2: Some school policies promote a culture of wellness and healthy eating, though there are quite a few exceptions. Schools have established new wellness policies, but may not embrace them. Policies related to healthy fundraisers and celebrations may be followed, but schools may experience resistance around them.</p> <p>EC 6.3: Some school staff support the professionalization and empowerment of school food staff, though there are quite a few exceptions. Some school staff express appreciation for food service staff and understand the influence they have on child health, but it is recognized that this view is not held school-wide.</p> <p>EC 6.4: Some school staff are engaged in school food and related efforts, though there are quite a few exceptions. They occasionally make healthier food and snack options.</p>
Not Impactful	<p>There is little or no evidence that school policies and culture have shifted as a result of the Initiative work.</p>

EC7: Equipping food service facilities

Rating	Evaluative Criteria
Highly Impactful	EC 7.1: All kitchens that received Initiative funding can support preparation, service and delivery of scratch cooked meals. This includes both central and satellite kitchens. Equipment and refrigerated and dry storage is available and consistently used to increase food service efficiency and effectiveness. Central kitchens are positioned to safely transport these meals to school kitchens. The new equipment positions districts to expand service opportunities (such as food trucks, catering, and vending to other schools and districts).
Impactful	EC 7.1: A majority of kitchens that received Initiative funding can support preparation, service and delivery of scratch cooked meals. This includes both central and satellite kitchens. Equipment and refrigerated and dry storage is available and consistently used to increase food service efficiency and effectiveness. Central kitchens are positioned to safely transport these meals to school kitchens.
Minimally Impactful	EC 7.1: Some of the kitchens that received Initiative funding can support preparation, service and delivery of scratch cooked meals, though there are quite a few exceptions. This includes both central and satellite kitchens.
Not Impactful	There is little or no evidence that school facilities have been improved or expanded on as a result of the Initiative work.

EC8: Improving food quality and what is on the plate

Rating	Evaluative Criteria
Highly Impactful	<p>EC 8.1: A majority of the breakfast and lunch entrees are healthy. A vegetarian entrée option is offered frequently and a la carte options are healthier. Only one entrée is offered daily at elementary schools, and desserts are not offered at all or are offered only once per week.</p> <p>EC 8.2: A majority of meal items are prepared from scratch. Most food items are prepared from scratch, including dressing, and sauces. Whole muscle meats are served.</p> <p>EC 8.3: Students are offered a variety of fresh fruits and vegetables on the majority of school days. Salad bars are offered daily at schools and salad bar offerings change regularly.</p> <p>EC 8.4: The majority of scratch-baked items meet federal and state guidelines for sugar, salt, and fat.</p> <p>EC 8.5: Food waste is drastically reduced. Students appreciate the food being served and are less likely to discard it.</p>
Impactful	<p>EC 8.1: Many of the breakfast and lunch entrees are healthy. A vegetarian entrée option is offered occasionally and many a la carte options are healthier. Only one entrée is regularly offered daily at elementary schools, and desserts are offered infrequently.</p> <p>EC 8.2: Many meal items are prepared from scratch. Many food items are prepared from scratch, including dressing, and sauces. Whole muscle meats are served.</p> <p>EC 8.3: Students are offered a variety of fresh fruits and vegetables on many school days. Salad bars are offered regularly at schools.</p> <p>EC 8.4: Many scratch-baked items meet federal and state guidelines for sugar, salt, and fat.</p> <p>EC 8.5: Food waste is noticeably reduced.</p>
Minimally Impactful	<p>EC 8.1: Some of the breakfast and lunch entrees are healthy, though there are quite a few exceptions. Some a la carte options are healthier. Only one entrée is occasionally offered daily at elementary schools, and desserts are offered only occasionally.</p> <p>EC 8.2: Some meal items are prepared from scratch, though there are quite a few exceptions. A few food items are prepared from scratch, including dressing, and sauces.</p> <p>EC 8.3: Students are offered a variety of fresh fruits and vegetables on some school days, though there are quite a few exceptions. Salad bars are offered occasionally at schools.</p> <p>EC 8.4: Some scratch-baked items meet federal and state guidelines for sugar, salt, and fat, though there are quite a few exceptions.</p> <p>EC 8.5: Food waste is slightly reduced.</p>
Not Impactful	<p>There is little or no evidence that the food literacy programs encouraged by the Initiative were successful in engaging students and school staff in food literacy programs.</p>

EC9: Training and empowering food service staff

Rating	Evaluative Criteria
Highly Impactful	<p>EC 9.1: A majority of food service staff experience a sense of empowerment. They consider themselves professionals, and are treated as such by their supervisors. They take pride in their role and position in the school community. They are empowered and proactively involved in improving the quality and healthfulness of the foods they serve.</p> <p>EC 9.2: A majority of food service staff model principles of healthy eating. Staff make healthier food choices in their own lives, such as weight loss, preparing healthy family meals at home, and participating in workplace wellness activities.</p> <p>EC 9.3: A majority of food service staff experience a high level of professionalism. Staff always wear chef coats and demonstrate a high level of professionalism and initiative. Staff seek, are offered, and take advantage of additional professional development opportunities. A majority are skilled in cooking from and adapting the recipes to connect the dots between the recipes and the federal/state standards, as well as preparing menu items from scratch.</p> <p>EC 9.4: A majority of food service staff use the skills learned in culinary training in their professional work environment. Staff are trained and know how to use professional kitchen equipment. They demonstrate safe knife usage. Staff can create healthy menus and a balanced menu cycle. They have the awareness and skills to buy local and / or fresh ingredients.</p> <p>EC 9.5: A majority of food service directors have knowledge of culinary business operations. Directors know and practice good food safety and sanitation. They understand that food service operation is a business and that requires a balanced operational budget and have identified ways to increase revenue sources and positive cash flow.</p> <p>EC 9.6: A majority of food service staff employ their understanding of the importance of customer service. Staff prioritize the aesthetics of food when planning and plating entrees, and are attuned to principles of good customer service. Staff demonstrate a customer-service mentality, engage actively with children, and highlight the taste and nutritional value of menu items.</p>
Impactful	<p>EC 9.1: Many food service staff experience a sense of empowerment. They consider themselves professionals, and are treated as such by their supervisors. They take pride in their role and position in the school community.</p> <p>EC 9.2: Many food service staff model principles of healthy eating. Staff make healthier food choices in their own lives, such as weight loss, preparing healthy family meals at home, and participating in workplace wellness activities.</p> <p>EC 9.3: Many food service staff experience a high level of professionalism. Staff normally wear chef coats and demonstrate a high level of professionalism and initiative. Staff seek, are offered, and take advantage of additional professional development opportunities. Many are skilled in cooking and preparing menu items from scratch.</p> <p>EC 9.4: Many food service staff use the skills learned in culinary training in their professional work environment. Staff are trained and know how to use professional kitchen equipment. They demonstrate safe knife usage. Staff can create healthy menus and a balanced menu cycle.</p> <p>EC 9.5: Many food service directors have knowledge of culinary business operations. Directors know and practice good food safety and sanitation. They understand that food service operation is a business and that requires a balanced operational budget</p> <p>EC 9.6: Many food service staff employ their understanding of the importance of customer service. Staff understand the importance of the aesthetics of food when planning and plating entrees, and are attuned to principles of good customer service. Staff demonstrate a customer-service mentality, engage actively with children, and highlight the taste and nutritional value of menu items..</p>

(continued)

EC9: Training and empowering food service staff (continued)

Rating	Evaluative Criteria
Minimally Impactful	<p>EC 9.1: Some food service staff experience a sense of empowerment, though there are quite a few exceptions. They consider themselves professionals and take pride in their jobs.</p> <p>EC 9.2: Some food service staff model principles of healthy eating, though there are quite a few exceptions. Staff make healthier food choices in their own lives, such as weight loss, preparing healthy family meals at home, and participating in workplace wellness activities.</p> <p>EC 9.3: Some food service staff experience a high level of professionalism, though there are quite a few exceptions. Staff occasionally wear chef coats and demonstrate a high level of professionalism and initiative. Some are skilled in cooking and preparing menu items from scratch.</p> <p>EC 9.4: Some food service staff use the skills learned in culinary training in their professional work environment, though there are quite a few exceptions. Staff are trained and know how to use professional kitchen equipment.</p> <p>EC 9.5: Some food service directors have knowledge of culinary business operations, though there are quite a few exceptions. Directors know and practice good food safety and sanitation.</p> <p>EC 9.6: Some food service staff employ their understanding of the importance of customer service, though there are quite a few exceptions.</p>
Not Impactful	There is little or no evidence that food service workers are more proficient or more empowered as a result of the Initiative work.

EC10: Improving students' food-related behaviors and choices

Rating	Evaluative Criteria
Highly Impactful	<p>EC 10.1: A majority of students are choosing healthy, scratch-cooked entrees over unhealthy a la carte or vending options. Students are excited to eat school food. Students actively choose healthier foods even when unhealthy foods are available. Fewer students leave campus to purchase unhealthy food from food trucks and convenient stores. More full-price students participate in school-provided meals.</p> <p>EC 10.2: A majority of students are eager to try new foods and produce. They are open to tasting new foods. They are choosing a rainbow of produce options from the daily, fresh salad bar.</p> <p>EC 10.3: A majority of students who bring foods from home are bringing healthy foods. They are bringing fewer processed foods and sugar-sweetened beverages to school.</p> <p>EC 10.4: A majority of students are drinking more water and less sugar-sweetened beverages. Students choose water over sugar-sweetened beverages, and use refillable water bottles or canteens to hydrate.</p>
Impactful	<p>EC 10.1: Many students are choosing healthy, scratch-cooked entrees over unhealthy a la carte or vending options. Fewer students leave campus to purchase unhealthy food from food trucks and convenient stores. More full-price students participate in school-provided meals.</p> <p>EC 10.2: Many students are willing to try new foods and produce. They are open to tasting new foods. They are choosing a rainbow of produce options from the daily, fresh salad bar.</p> <p>EC 10.3: Many students who bring foods from home are bringing healthy foods. They are bringing fewer processed foods and sugar-sweetened beverages to school.</p> <p>EC 10.4: Many students are drinking more water and less sugar-sweetened beverages. Many students choose water over sugar-sweetened beverages.</p>
Minimally Impactful	<p>EC 10.1: Some students are choosing healthy, scratch-cooked entrees over unhealthy a la carte or vending options, though there are quite a few exceptions. Some students do not leave campus to purchase unhealthy food from food trucks and convenient stores.</p> <p>EC 10.2: Some students are willing to try new foods and produce, though there are quite a few exceptions. They are open to tasting new foods. They are choosing a rainbow of produce options from the daily, fresh salad bar.</p> <p>EC 10.3: Some students who bring foods from home are bringing healthy foods, though there are quite a few exceptions. They are bringing fewer processed foods and sugar-sweetened beverages to school.</p> <p>EC 10.4: Some students are drinking more water and less sugar-sweetened beverages, though there are quite a few exceptions. They choose water over sugar-sweetened beverages.</p>
Not Impactful	<p>There is little or no evidence that students' food-related behaviors and choices have shifted as a result of the Initiative work.</p>

**EC11: Improving food literacy and food literacy practices
(understanding the story of our food and its impact on health, the environment, and community)**

Rating	Evaluative Criteria
Highly Impactful	<p>EC 11.1: A majority of students have a high degree of food literacy. Students understand why making the healthier choice is better for their energy balance and the environment, and understand the importance of eating a variety of fresh fruits and vegetables to obtain needed vitamins and nutrients. Students understand that the food that is good for them also tastes good.</p> <p>EC 11.2: A majority of students understand where their food comes from. Students understand the cycle of food production and can speak about the food system. They can identify raw, whole foods.</p> <p>EC 11.3: A majority of students understand the importance of adequate hydration. Students understand the need to hydrate, and that water is the best source of hydration.</p> <p>EC 11.4: A majority of school staff have a higher degree of food literacy. Staff are consistently making healthier choices and modeling these to students.</p>
Impactful	<p>EC 11.1: Many students have a high degree of food literacy. Students understand why making the healthier choice is better for their energy balance and the environment, and understand the importance of eating a variety of fresh fruits and vegetables to obtain needed vitamins and nutrients. Students understand that the food that is good for them also tastes good.</p> <p>EC 11.2: Many students understand where their food comes from. Students understand the cycle of food production and can speak about the food system. They can identify raw, whole foods.</p> <p>EC 11.3: Many students understand the importance of adequate hydration. Students understand the need to hydrate, and that water is the best source of hydration.</p> <p>EC 11.4: Many school staff have a higher degree of food literacy. Staff are regularly making healthier choices.</p>
Minimally Impactful	<p>EC 11.1: Some students have a high degree of food literacy, though there are quite a few exceptions. Students understand why making the healthier choice is better for their energy balance and the environment, and understand the importance of eating a variety of fresh fruits and vegetables to obtain needed vitamins and nutrients.</p> <p>EC 11.2: Some students understand where their food comes from, though there are quite a few exceptions. Students are aware of the cycle of food production and can identify raw, whole foods.</p> <p>EC 11.3: Some students understand the importance of adequate hydration, though there are quite a few exceptions. Students understand the need to hydrate, and that water is the best source of hydration.</p> <p>EC 11.4: Some school staff have a higher degree of food literacy, though there are quite a few exceptions. Staff are occasionally making healthier choices.</p>
Not Impactful	<p>There is little or no evidence that food literacy has improved as a result of the Initiative work.</p>

EC12: Establishing community involvement and partnerships

Rating	Evaluative Criteria
Highly Impactful	<p>EC 12.1: Schools engage local farmers and producers in the school food systems for a majority of food needs. New partnerships have been established and are being maintained.</p> <p>EC 12.2: Schools offer parents many opportunities to engage in school food efforts. Schools host opportunities throughout the school year for parents to partake in school food to serve as food literacy and marketing opportunities. Schools have found ways to go out into the community and engage families in the school food efforts.</p>
Impactful	<p>EC 12.1: Schools engage local farmers and producers in the school food systems for many food needs. New partnerships have been established and are being maintained.</p> <p>EC 12.2: Schools offer parents multiple opportunities to engage in school food efforts. Schools host opportunities for parents to partake in school food more than once a year to serve as food literacy and marketing opportunities.</p>
Minimally Impactful	<p>EC 12.1: Some schools engage local farmers and producers in the school food systems for some food needs, though there are quite a few exceptions. New partnerships have been established but may not be maintained.</p> <p>EC 12.2: Schools offer parents one opportunity to engage in school food efforts. Schools host opportunities for parents to partake in school food once a year.</p>
Not Impactful	<p>There is little or no evidence that the Initiative work has instigated community involvement and partnerships.</p>

APPENDIX D: INTERVIEW GUIDE

Since the year 2008, the Orfalea Fund has funded and implemented many efforts in Santa Barbara County to support the improvement of school food systems and outcomes.

This is a list of all of the major activities and efforts that the Fund has employed to help your district move your work to improve school food quality and school food systems forward. Does that sound right? As we move through the interview, please reflect and refer on these efforts specifically.

- 1] Talk about your general impressions of the support your school/district has received and the impact of that support.
 - What worked well in terms of the support?
 - What didn't work well? What could have been improved upon?
 - What was missing?
- 2] Discuss specific ways in which these efforts have influenced:
 - The school food personnel, including attitudes, behaviors, knowledge, food literacy, and empowerment, self-perception, if at all.
 - Students' attitudes, behaviors, perceptions, and knowledge, including food-related behaviors and choices, food literacy, if at all.
 - The school, including what is served at meals, the school food facilities, food literacy, and community partnerships or engagement efforts, if at all.
- 3] Can you tell me a story or provide an example of how these efforts produced change in your school/district?
- 4] What are the two activities/efforts that made the most impact/difference? Why were these most impactful? What are the specific impacts of these activities/efforts?
- 5] Describe some of the challenges that your school experienced related to implementing these programs/activities to improve school food and systems.
 - What was difficult about implementing these activities?
- 6] Describe what helped your school overcome these challenges.
 - What were the facilitators of success?
- 7] Of all the different efforts and activities associated with improving school food efforts, which, if any, would you recommend others implement?
 - Which activities would you recommend others NOT attempt to implement?
- 8] What did you learn through this process of improving the school food quality and systems that you would want to make sure other schools and their schools knew before and during their efforts to make the changes your school/district has made?
 - What are your lessons learned/words of wisdom to share?
 - What would you tell another school that was getting ready to start a school food initiative?
 - If you were setting up a support program to assist schools with improving their food quality and systems yourself, what would be key to include? What would you change from the Initiative that you were involved in through TOF?

9] What does your school need in order to sustain the work and impact of the activities and efforts that the Fund contributed to?

I'm now going to ask you to rate the impact of the work your school/district has, done in partnership with the Fund, to improve the food quality and systems, then I'm going to ask you to rate just the Fund's contribution to the overall impact in these areas.

10] How much did these efforts positively impact the county's school food quality and systems?

- Highly Impactful
- Impactful
- Minimally Impactful
- Not Impactful

11] Taking all the Fund's efforts together, how much did they contribute to the overall positive impact of the county's school food quality and systems?

- Very Strong Contribution
- Strong Contribution
- Minimal Contribution
- No Contribution

12] Is there anything else that you want to make sure I learn from you about the Fund's or the county's efforts to improve school food quality and systems?

Thank you for your time.

APPENDIX E: SURVEY INSTRUMENT

School Food Initiative Survey

The Orfalea Foundation has hired us to conduct a survey on your experiences with the School Food Initiative. Your answers to the survey questions will be confidential. The only people who will see your answers are the evaluation team at Evaluation Specialists; the Orfalea Foundation staff (including the Chef Instructors) will not see your individual responses.

We will not share you individual answers with anyone, including your supervisor, your peers, or anyone at the Orfalea Foundation. Rather, we will compute averages across everyone's answers. Those averages are the only information we will share with others.

School Food Initiative Survey

- * 1. What is your full name (first and last)? This information will not be shared with your peers, supervisor, or staff at the Orfalea Foundation.

- * 2. What is the name of the school that you were at in the 2014/15 school year? This is the school to which you were primarily assigned as a lead cafeteria worker or cafeteria manager that year.

- * 3. In what year did you start working with this school's cafeteria?

- * 4. In what year did you stop working with this school's cafeteria?

- * 5. Have you heard of the Orfalea Foundation's School Food Initiative?

The next questions ask about your experiences with various elements of the School Food Initiative.

School Food Initiative Survey

* 6. Did you attend the Orfalea Foundation's School Food Initiative Culinary Boot Camp?

Yes

No

School Food Initiative Survey

The following questions describe the goals of the School Food Initiative's Culinary Boot Camp. What grade would you give the Initiative for these goals?

* 7. Culinary Boot Camp helped me:

	F=did not meet this goal.	C=somewhat met this goal.	B=met this goal.	A=exceeded this goal.
Feel more professional in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand the process of buying, receiving, and making school food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand my role in the school food reform movement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand my role in improving child health.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve my culinary skills (such as knife skills, baking skills, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Food Initiative Survey

* 8. Did the Orfalea Foundation’s School Food Initiative Chef Instructors support you in your work at the school? (The Chef Instructors were: Janet Stevenson, Kirsten Criswell, Claud Mann, and Naomi Serizawa. Please select "no" if you were not supported by one of these four chef instructors.)

Yes

No

School Food Initiative Survey

The following questions describe the goals of the School Food Initiative’s Chef Instructors (Janet Stevenson, Kirsten Criswell, Claud Mann, Naomi Serizawa). What grade would you give the Initiative for each of these goals?

* 9. The SFI chef instructor:

	F=did not meet this goal	C=somewhat met this goal.	B=met this goal.	A=exceeded this goal.
Was available to me when I needed him/her	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was there to support me in my attempts to cook from scratch at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped me understand the process of buying, receiving, and making school food.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped me and my team accomplish more in less time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped me understand the rules and regulations related to school food.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helped me with recipe development and conversions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provided guidance and advice to other food service workers in my kitchen.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encouraged me to participate in professional development opportunities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Food Initiative Survey

* 10. Sometimes your school gets new food service staff who have not been to Culinary Boot Camp or worked with the Chef Instructors. How many of these new staff have been trained in scratch cooking by existing staff?

- None of them
- Some of them
- Most of them
- All of them
- N/A. We have not hired new staff.

School Food Initiative Survey

* 11. Did your school receive funding from the Orfalea Foundation's School Food Initiative to improve your kitchen and/or purchase new kitchen equipment?

- Yes
- No
- I don't know

School Food Initiative Survey

* 12. How often:

	Never	Sometimes	Normally	Always	I don't know
was the equipment that was provided by the School Food Initiative used for scratch cooking?	<input type="radio"/>				
did the equipment usable for making healthy scratch-cooked foods sit around unused?	<input type="radio"/>				

* 13. How much of the equipment that was provided by the School Food Initiative for scratch cooking goes unused?

- None of it
- Some of it
- A lot of it
- All of it
- I don't know

School Food Initiative Survey

* 14. Does your school prepare school meals onsite or are they prepared offsite?

- Onsite (at my school)
- Offsite (at a central kitchen or another facility that is not at my school)

* 15. Does your school serve any scratch-made foods (i.e. "scratch cooking")?

- Yes
- No

For the following questions, think about your experiences during the last school year (Fall 2014 - Summer 2015).

School Food Initiative Survey

* 16. During the 2014/15 school year:

	No one did	Some staff did	Many staff did	Most staff did
School staff treated me with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School staff treated me like I was highly-skilled in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School staff appreciated me and my role in improving children's health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School and district leadership made me feel like I could make decisions related to my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 17. During the 2014/2015 school year:

	None of what we needed	Some of what we needed	A lot of what we needed	All of what we needed
We had the kinds of kitchen equipment we needed to prepare food from scratch.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We had the kinds of equipment we needed to serve food from scratch (such as salad carts).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Food Initiative Survey

* 18. During the 2014/15 school year, our central kitchen had the kinds of equipment needed to deliver food from scratch to our school (such as: refrigerated trucks, etc).

- None of what was needed
- Some of what was needed
- A lot of what was needed
- All of what was needed
- I don't know

School Food Initiative Survey

* 19. During the 2014/15 school year:

	None	Some	A lot	Most	I don't know
how many of the food service staff in your district had full-time positions and benefits?	<input type="radio"/>				
how many meal items (sauces, dressings, entrees) were prepared from scratch?	<input type="radio"/>				

School Food Initiative Survey

* 20. During the 2014/2015 school year, how often:

	None of the time	Not very often	Sometimes	Most of the time
Were breakfast entrees healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were lunch entrees healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were students offered a variety of fresh fruits and vegetables?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were you encouraged to share ideas about improving the food or how food was prepared or distributed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you feel confident in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you make a conscious effort to eat healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you eat healthy to be an example to students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you feel a sense of self-respect in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you feel highly-skilled in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you use the skills you learned in Culinary Boot Camp in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you think about the importance of plating the food when serving meals to students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you feel you knew about culinary business operations (such as budgeting, management)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Food Initiative Survey

* 21. Are you aware of the federal and state guidelines for sugar, salt, and fat in school meals?

Yes

No

School Food Initiative Survey

* 22. During the 2014/2015 school year, how often did the scratch-baked items meet federal and state guidelines for sugar, salt, and fat?

None of the time

Not very often

Sometimes

Most of the time

I don't know

School Food Initiative Survey

* 23. During the 2014/2015 school year, how often did your school invite parents to the school to learn about or taste school food?

Never

Once

A few times

Many times

* 24. During the 2014/2015 school year, how much food that was offered at school was thrown away?

None

Some

A lot

Most

School Food Initiative Survey

* 25. During the 2014/2015 school year, how many students:

	None	Some	Many	Most
Chose to purchase or receive a la carte options?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chose to purchase or receive scratch-cooked entrees when they were offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were <u>willing</u> to try new foods that your team offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Were <u>excited</u> to try new foods that your team offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chose to drink water over sugar-sweetened beverages?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 26. During the 2014/2015 school year, how many:

	None	Some	Many	Most	I don't know
Students bringing food from home brought healthy meals?	<input type="radio"/>				
Full-price students participated in school-provided meals?	<input type="radio"/>				
School staff purchased meals or meal items from the school cafeteria?	<input type="radio"/>				
Students understood the importance of making healthy food choices?	<input type="radio"/>				
Students understood where their food comes from?	<input type="radio"/>				
Students understood the need to drink plenty of water?	<input type="radio"/>				
School staff ate healthy to be a good example for students?	<input type="radio"/>				

School Food Initiative Survey

* 27. How much of the food that you served at school came from local farmers and producers?

- None
- Some
- A lot
- Most
- I don't know

School Food Initiative Survey

The next questions ask you to rate the School Food Initiative overall.

School Food Initiative Survey

* 28. Please rate each of the School Food Initiative's primary activities.

	Not at all useful	A little useful	Somewhat useful	Very useful	N/A; I'm not familiar with that activity
Onsite Technical Assistance/ Support from Chef Instructors	<input type="radio"/>				
Culinary Boot Camp	<input type="radio"/>				
School-based food literacy programming overall (junior chef day, food play, gardens)	<input type="radio"/>				
Funding/Infrastructure grants given to my school or district	<input type="radio"/>				
Culture of wellness activities (work that the SFI did with your district wellness committee, such as creating new policies about what foods can be served for celebrations and fundraisers).	<input type="radio"/>				

* 29. Please rate each of the School Food Initiative's primary food literacy programs.

	Not at all useful	A little useful	Somewhat useful	Very useful	N/A; I'm not familiar with that food literacy program.
Jr. Chef	<input type="radio"/>				
FoodPlay Productions	<input type="radio"/>				
School Gardens	<input type="radio"/>				
Chefs in the Garden	<input type="radio"/>				

* 30. Please rate the following items based on how much you think they improved because of the School Food Initiative.

	Not at all improved	A little improved	Somewhat improved	Very improved	I don't know
Food-related school policies and culture	<input type="radio"/>				
Food service facilities and kitchens	<input type="radio"/>				
Food quality and what is served to students	<input type="radio"/>				
My and my staff's knowledge and expertise in scratch cooking	<input type="radio"/>				
Students' food-related behaviors and choices	<input type="radio"/>				
Students' understanding of the importance of healthy eating	<input type="radio"/>				
Community involvement and partnerships related to school food	<input type="radio"/>				

School Food Initiative Survey

The next questions ask you to use your imagination.

Imagine the Orfalea Foundation's School Food Initiative did not exist. Imagine if the School Food Initiative had not provided support to you or your school and district, support like:

- Culinary Boot Camp
- Chef Instructors
- Funding & Infrastructure Grants
- Food Literacy Programming (such as school gardens, food play production, and jr chef)
- Work that they did with your district or school wellness committees to change school policies related to school food (such as what kinds of foods can be served for celebrations and fundraisers).

Answer the following questions as if it was the 2014/15 school year but none of that support had been offered.

* 31. If the School Food Initiative had not existed, during the 2014/15 school year:

	No one would have	Some staff would have	Many staff would have	Most staff would have
School staff would have treated me with respect.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School staff would have treated me like I was highly-skilled in my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School staff would have appreciated me and my role in improving children's health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School and district leadership would have made me feel like I could make decisions related to my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 32. If the School Food Initiative had not existed, during the 2014/15 school year:

	No	Yes
We would have had the kitchen equipment we needed to prepare food from scratch.	<input type="radio"/>	<input type="radio"/>
We would have had the equipment we needed to serve food from scratch (such as salad carts).	<input type="radio"/>	<input type="radio"/>

School Food Initiative Survey

* 33. If the School Food Initiative had not existed, during the 2014/15 school year, our central kitchen would have had the equipment needed to deliver food from scratch to our school (such as: refrigerated trucks, etc).

- No
- Yes

School Food Initiative Survey

* 34. If the School Food Initiative had not existed, during the 2014/15 school year:

	None	Some	A lot	Most	I don't know
how many of the food service staff in your district would have had full-time positions and benefits?	<input type="radio"/>				
how many meal items (sauces, dressings, entrees) would have been prepared from scratch?	<input type="radio"/>				

School Food Initiative Survey

* 35. If the School Food Initiative had not existed, during the 2014/15 school year, how often:

	None of the time	Not very often	Sometimes	Most of the time
Would breakfast entrees have been healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would lunch entrees have been healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would students have been offered a variety of fresh fruits and vegetables?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have been encouraged to share ideas about improving the food or how food was prepared or distributed?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have felt confident in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have made a conscious effort to eat healthy?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have eaten healthy to be an example to students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have felt a sense of self-respect in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have felt highly-skilled in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have used scratch cooking skills in your job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have thought about the importance of plating the food when serving meals to students?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would you have felt you knew about culinary business operations (such as budgeting, management)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. If the School Food Initiative had not existed, would you have been aware of the federal and state guidelines for sugar, salt, and fat in school meals?

- Yes
- No

School Food Initiative Survey

* 37. If the School Food Initiative had not existed, during the 2014/15 school year, how often would the scratch-baked items have met federal and state guidelines for sugar, salt, and fat?

- None of the time
- Not very often
- Sometimes
- Most of the time
- I don't know
- N/A; we would have have offered scratch-baked items

School Food Initiative Survey

* 38. If the School Food Initiative had not existed, during the 2014/15 school year, how often would your school have invited parents to the school to learn about or taste school food?

- Never
- Once
- A few times
- Many times

* 39. If the School Food Initiative had not existed, during the 2014/15 school year, how much food that was offered at school would have been thrown away?

- None
- Some
- A lot
- Most

School Food Initiative Survey

* 40. If the School Food Initiative had not existed, during the 2014/15 school year, how many students:

	None	Some	Many	Most
Would have chosen to purchase or receive a la carte options?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would have chosen to purchase or receive scratch-cooked entrees when they were offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would have been <u>willing</u> to try new foods that your team offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would have been <u>excited</u> to try new foods that your team offered?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would have chosen to drink water over sugar-sweetened beverages?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 41. If the School Food Initiative had not existed during the 2014/15 school year, how many:

	None	Some	Many	Most	I don't know
Students bringing food from home would have brought healthy meals?	<input type="radio"/>				
Full-price students would have participated in school-provided meals?	<input type="radio"/>				
School staff would have purchased meals or meal items from the school cafeteria?	<input type="radio"/>				
Students would have understood the importance of making healthy food choices?	<input type="radio"/>				
Students would have understood where their food comes from?	<input type="radio"/>				
Students would have understood the need to drink plenty of water?	<input type="radio"/>				
School staff would have eaten healthy to be a good example for students?	<input type="radio"/>				

School Food Initiative Survey

* 42. If the School Food Initiative had not existed during the 2014/15 school year, how much of the food that you served at school would have come from local farmers and producers?

- None
- Some
- A lot
- Most
- I don't know

* 43. We will be delivering your gift card via email. Please enter the email address that you would like us to send your gift card to. You will receive your gift card via email within two weeks of completion.

APPENDIX F: CHANGE OVER TIME ANALYSIS

School-level output variables grouped by outcome domains (N=47)

Output	Timepoint				Overall Change		
	Baseline ^a		Post ^a		X ² (²)	p	d ^(b)
	Mean/%	SD	Mean/%	SD			
Students' food literacy							
Food-related school policies and culture							
Does the kitchen and cafeteria compost kitchen waste and food scraps (percent answering yes)?	19.40		15.60		.66		-.15
Are disposable utensils, trays and other dinnerware used in the cafeteria (percent answering yes)?	66.70		80.40		.18		.32
School food quality and what is served to students							
How many times per month							
...are whole grains served?	11.47	15.66	19.02	3.56	10.12	.00	.43
...are vegetarian entrees offered at lunch?	9.40	6.79	7.69	5.14	1.77	.18	-.27
...are sauces made from scratch offered?	3.06	2.57	4.59	4.52	3.62	.06	.40
...are scratch-made dressings offered?	3.39	5.97	1.57	1.49	4.06	.04	-.30
...is dessert offered at lunch?	1.51	4.55	.40	1.45	2.49	.11	-.23
How many times per week?							
...is salad bar offered?	4.12	1.73	4.47	1.39	1.07	.30	.24
...is processed cheese served at lunch?	3.27	3.30	5.08	15.15	.56	.45	.12
...is pizza served at lunch?	2.03	1.53	2.38	2.58	.46	.50	.16
...is flavored milk offered at lunch?	.09	.44	.00	.00	2.36	.13	-.20
How many							
...lunch entrees are offered to High School students each day?	1.09	2.41	1.32	3.78	.06	.80	.17
...lunch entrees are offered to Elementary School students each day?	1.36	1.08	1.36	.66	.00	1.0	.00
...lunch entrees are offered to Middle School or Junior High School students each day?	1.50	2.65	1.58	2.30	.02	.90	.11
Are a la carte food and beverages offered at lunch (percent answering yes)?	20.70		14.30		.48		-1.07
School food personnel expertise and sense of empowerment							
How many Food Service Workers							
...demonstrate mastery of knife skills after Boot Camp?	2.13	2.12	3.74	2.11	10.07	.02	.64
...express desire to institute achievable improvements?	2.21	2.49	3.42	1.99	5.26	.02	.39
...request to do more scratch cooking after Boot Camp?	1.94	2.14	3.64	2.10	10.58	.00	.67
...report making changes in personal behavior after Boot Camp?	2.00	2.05	3.45	2.01	9.65	.00	.54
How many days per week do Food Service Workers wear chef coats?	.98	1.62	1.26	2.12	.49	.49	.17
How many times per month are Boot Camp materials being referenced?	7.59	8.26	7.71	7.51	.00	.95	.02
What percentage of fresh produce is processed in-house each week?	52.39		43.98		.22		.00

(a) Please refer to Appendix B for definitions of Baseline and Post.

(b) Cohen's d is an effect size reflecting the magnitude of change. .20 is commonly considered a small effect size, .50=a medium effect size, .80=a large effect size.

School-level output variables grouped by outcome domains (N=47) (continued)

Output	Timepoint				Overall Change		
	Baseline ^a		Post ^a		X ² (²)	p	d ^(b)
	Mean/%	SD	Mean/%	SD			
School food service facilities							
Does the kitchen have a working white board (percent answering yes)?	29.60		58.70		.02	.52	
Students' food-related behaviors and choices							
Community involvement and partnerships around school food							
Teacher participation in school food							
How many adults are served at lunch each day?	4.61	3.85	5.75	5.25	1.25	.26	.21
Family food literacy and practices							

a) Please refer to Appendix B for definitions of Baseline and Post.

(b) Cohen's d is an effect size reflecting the magnitude of change. .20 is commonly considered a small effect size, .50=a medium effect size, .80=a large effect size.

District-level output variables grouped by outcome domains. (N=9)

Output	Timepoint				Overall Change		
	Baseline ^a		Post ^a		X ² (²)	p	d ^(b)
	Mean/%	SD	Mean/%	SD			
Students' food literacy							
Food-related school policies and culture							
Is the Food Service department profitable (percent answering yes)?	85.70		87.50		.92	.03	
School food quality and what is served to students							
How many times per month							
...are sauces made from scratch offered?	6.19	7.19	27.11	40.10	2.10	.15	.51
...are scratch-made dressings offered?	2.00	2.71	3.89	6.21	.56	.46	.51
...are canned fruits served?	2.50	3.16	.89	.33	2.45	.12	-.51
...are vegetarian entrees offered at lunch?	20.81	43.34	11.44	9.02	.40	.53	-.25
...is dessert offered at lunch?	4.30	8.79	3.78	6.46	.02	.90	-.18
...are Boot Camp recipes used on the lunch menu?	12.33	13.58	10.22	7.19	.13	.72	-.32
How many times per week?							
...is processed cheese served at lunch?	8.43	6.92	10.67	24.25	.06	.81	.08
...is salad bar offered?	3.88	1.81	5.22	1.09	3.56	.06	.73
...is flavored milk offered at lunch?	1.71	2.36	.67	1.66	1.09	.30	-.66
How many entrees are offered at lunch to Elementary School students?	2.38	3.16	2.89	4.22	.08	.78	.41
What percentage of meats served per week are whole muscle versus processed?	5.00	7.46	9.67	5.74	1.88	.17	.65
School food personnel expertise and sense of empowerment							
What is the average food cost per lunch?	\$1.20	.18	\$1.36	.38	.98	.32	.39
What percentage of fresh produce is processed in-house each week?	50.00		71.78		1.20	.27	.01
School food service facilities							
Students' food-related behaviors and choices							
How many							
...free and reduced meals are served at lunch each day?	1536.86	1624.97	1943.71	2448.15	.13	.71	.33
...paid meals are served at lunch each day?	663.88	695.25	845.50	860.36	.22	.64	.81
Community involvement and partnerships around school food							
Teacher participation in school food							
How many adults served at lunch each day?	17.29	20.25	57.00	81.29	1.57	.21	.50
Family food literacy and practices							

a) Please refer to Appendix B for definitions of Baseline and Post.

(b) Cohen's d is an effect size reflecting the magnitude of change. .20 is commonly considered a small effect size, .50=a medium effect size, .80=a large effect size.

APPENDIX G: SURVEY FINDINGS

Counter-Factual (Imagined Pre-Test)		Factual (Post-Test)		Wald Chi-Square					Survey Question
M	SD	M	SD	Index (Time Point)	Interaction (TOF Engagement)	Interaction (Need)	Interaction (Size)	Interaction (Level)	
School food personnel expertise and sense of empowerment									
2.89	.84	3.45	.65	27.46**	19.93**	5.01**	3.08	.14	School staff treated me with respect.
2.62	.95	3.12	.83	21.44**	.042	3.63	4.39**	21.62**	School staff treated me like I was highly-skilled in my job.
2.54	.99	3.18	.83	16.54**	1.17	9.11**	1.63	4.69	School staff appreciated me and my role in improving children's health.
2.68	1.01	3.73	.61	28.24**	4.34**	7.95**	.19	1.22	How often were you encouraged to share ideas about improving the food or how food was prepared or distributed?
3.14	.75	3.86	.35	22.00**	3.18	4.65**	.03	.21	How often did you feel confident in your job?
3.24	.79	3.84	.37	14.14**	5.33**	1.74	.16	.01	How often did you feel a sense of self respect in your job?
2.97	.79	3.78	.42	23.81**	5.78**	2.86	.74	.48	How often did you feel highly-skilled in your job?'
2.51	.98	3.76	.76	26.25**	3.18	2.94	.09	1.06	How often did you use the skills you learned in Culinary Boot Camp in your job?
2.41	1.09	3.22	.97	26.45**	5.12**	10.66**	3.47	1.25	How often did you feel you knew about culinary business operations (such as budgeting, management)?'
2.86	1.08	3.89	.32	19.58**	1.33	.01	.26	2.92	How often did you think about the importance of plating the food when serving meals to students?
2.57	.87	3.24	.85	25.97**	31.42**	3.76**	.77	.34	School and district leadership made me feel like I could make decisions related to my job.
Food-related school policies and culture									
1.91	.73	2.29	.96	36.42**	3.35	22.58**	.00	.13	How many of the food service staff in your district had fulltime positions and benefits.
2.97	.93	3.51	.80	5.07**	.13	1.37	.73	1.15	How often did you eat healthy to be an example to students?
2.24	.69	3.00	.72	23.14**	.24	12.37**	.29	2.55	How many school staff ate healthy to be a good example for students?
3.11	.81	3.76	.44	20.01**	.264	5.70**	1.23	2.04	How often did you make a conscious effort to eat healthy?
School food quality and what is served to students									
2.76	.89	3.62	.83	19.07**	1.64	3.30	.14	.33	How often were breakfast entrees healthy?
2.97	.76	3.92	.28	28.70**	2.98	1.89	.06	.42	How often were lunch entrees healthy?

(continued)

Counter-Factual (Imagined Pre-Test)		Factual (Post-Test)		Wald Chi-Square					Survey Question
M	SD	M	SD	Index (Time Point)	Interaction (TOF Engagement)	Interaction (Need)	Interaction (Size)	Interaction (Level)	
School food quality and what is served to students (continued)									
2.06	.86	3.22	.89	30.89**	19.70**	6.51**	1.05	.74	How many meal items (sauces, dressings, entrees) were prepared from scratch?
3.27	.87	4.00	.00	t=22.84**	N/A	N/A	N/A	N/A	How often were students offered a variety of fresh fruits and vegetables?
3.13	.92	3.96	.19	19.16**	.45	1.62	1.41	4.64	How often did the scratch-baked items met federal and state guidelines for sugar, salt, and fat?
2.58	.51	2.79	.48	7.01**	1.72	.27	1.24	.34	How much food that was offered at school was thrown away?
1.94	.84	2.35	.68	8.86**	8.65**	4.19**	.00	.17	How many School staff purchased meals or meal items from the school cafeteria?
Students' food-related behaviors and choices									
3.22	.67	3.27	.96	13.93**	.03	5.46**	.83	2.81	How many students chose to purchase or receive a la carte options?
2.30	.85	3.05	.91	12.70**	.12	.00	.27	2.20	How many students chose to purchase or receive scratch-cooked entrees when they were offered?
2.32	.71	2.97	.76	12.11**	.01	4.42**	1.59	.04	How many students were willing to try new foods that your team offered?
2.22	1.00	2.81	.99	7.82**	.59	1.35	.82	6.12**	How many students chose to drink water over sugar-sweetened beverages?
2.21	.64	2.62	.83	6.09**	22.71**	.21	.15	1.04	How many full-price students participated in school-provided meals?
2.06	.61	2.13	.51	.85	.11	1.32	.06	.62	How many students bringing food from home brought healthy meals?
2.32	.71	3.03	.79	15.99**	.01	2.61	.63	.11	How many students were excited to try new foods that your team offered?
Students' food literacy									
2.18	.76	3.03	.78	18.52**	2.40	7.48**	.19	2.08	How many students understood the importance of making healthy food choices?
2.06	.68	2.79	.78	16.85**	2.81	.92	1.64	.14	How many students understood where their food comes from?
2.43	.95	3.21	.81	21.73**	.24	2.21	.58	.08	How many students understood the need to drink plenty of water?
Community involvement and partnerships around school food									
1.94	.84	2.75	.87	19.02**	.14	1.07	1.71	2.06	How much of the food that you served at school came from local farmers and producers?
1.84	1.02	2.15	1.13	22.55**	14.42	.73	1.29	3.45	How often did your school invite parents to the school to learn about or taste school food?

Responses were reported on a four-point scale from low to high.

** = <.05

1 All schools rated this a 4 ("most of the time") regardless of school need, school size, school type, and engagement level.

There are therefore no relationships between these variables and this outcomes.

APPENDIX H: QUALITATIVE FINDINGS AND SUPPORTING QUOTES

Value of each Initiative element. Below presents the number of study participants that referenced each Initiative element and the number of those participants who reported that the Initiative element was valuable.

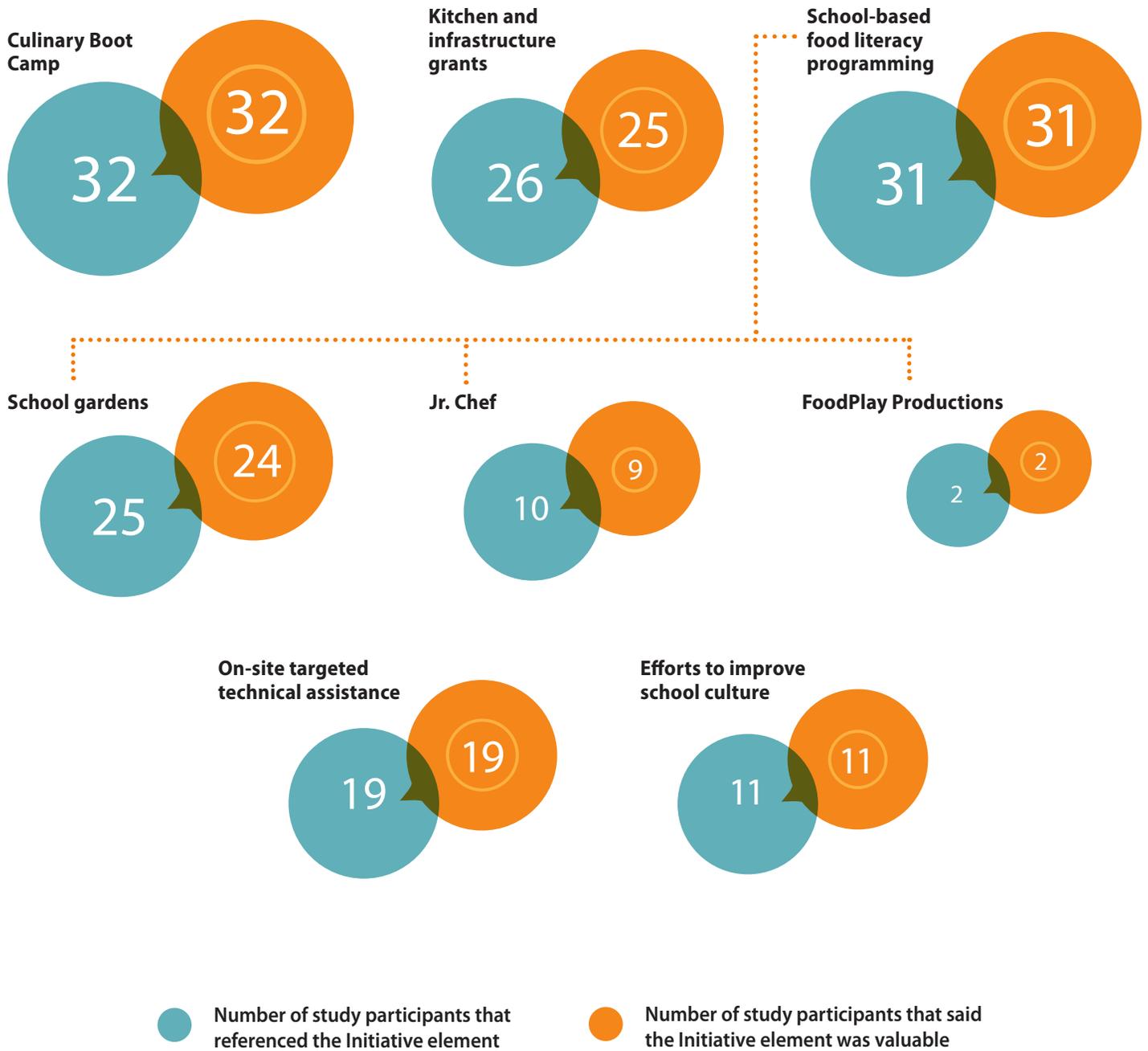


TABLE OF SUPPORTING QUOTES

Theme	Illustrating Quote	Study Participant
Initiative Elements		
The Culinary Boot Camp was seen as the most important element of the initiative.	"I went through the Culinary Boot Camp and it was a great experience. I feel like they raised the bar on the expectations of school food and how it's prepared, and gave us the knowledge that we needed to meet that new expectation and cook from scratch."	Food Service Staff
Grants to fund school and district kitchen infrastructure and equipment were seen as a principal element of the initiative.	"We needed the tools such as mixers, quality knives, convection ovens, tilt skillets and immersion blenders. And this district didn't have those tools. The School Food Initiative grants provided us with that equipment so that we could do scratch cooking."	Food Service Director
The Initiative variety of food literacy programs, specifically its support of school gardens, were particularly valuable to the efforts to improve school food.	"I have to say that the gardens are one of the most important things that we do. They are so great for kids to engage in a process where they plant seeds, care, learn about how to care for, grow plants and then eat what they grew."	Superintendent
On-site targeted technical assistance ("In-Service Culinary Support") offered by School Food Initiative Chef Instructors was an important aspect of the initiative.	"The Chef Instructor visits us here on our campus and works in the kitchen right alongside our employees to support all of the various elements that go into scratch cooking and improving school food. She also pushes us to improve by asking us questions and helping us come up with solutions."	Superintendent
The Initiative efforts to improve school culture related to school food were effectively aligned with regional and federal efforts.	"Well, we have had a Wellness Committee for a while now, but it used to be just a check-in-the-box kind of thing. We would say that we had a wellness policy, but nothing really happened at the school sites in response to the policy. But now that Initiative prodded us, the policies are really starting to take a hold."	Food Service Director
Initiative Impacts		
The Initiative helped improve students' food literacy.	"The students are willing to try a lot more foods, particularly fruits and vegetables. They are really expanding their horizons, and we talk about the healthy foods in terms of nutrition."	Teacher

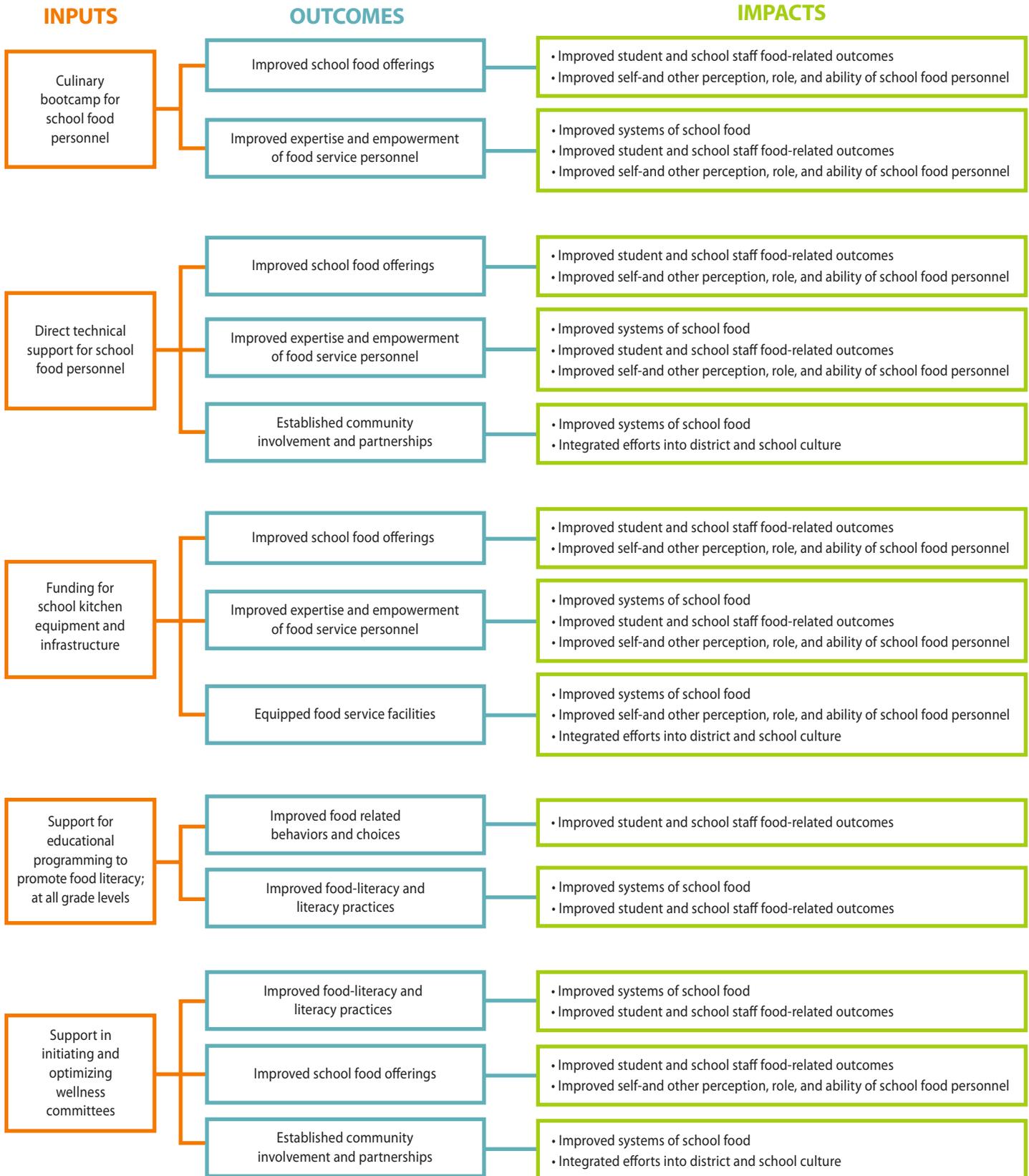
Theme	Illustrating Quote	Study Participant
Initiative Impacts		
The Initiative helped improve food-related school policies and culture.	“Long ago teachers would occasionally have parties and they would have things like candy or some sort of sweets for the students. Those kinds of treats are actively discouraged at school now because of the work of the Wellness Committee.”	Teacher
The Initiative helped improve school food quality and what was offered to students.	“The food is amazing now. We now have a lot more fresh food, a lot of wheat as compared to just white bread and rice, and a lot more whole foods.”	Teacher
The Initiative helped build expertise and a sense of empowerment in school food personnel.	“I think the school food personnel came out of the Culinary Boot Camp experience saying, “You know what? I’m not just a person who works in a cafeteria. I am a person who is doing something important for kids. I’m doing something that is visionary in the world of school food and I’m valued.” I think in the past there hasn’t always been as much respect for people in those positions and I really feel like the experience made them feel like what they are doing is really important.”	Principal
The Initiative helped improve and equip school food service facilities.	“The School Food Initiative funded some of our kitchen remodels and brought the kitchens to actually the 21st century. This helps when we are cooking in bulk and need to get scratch-made food ready quickly and efficiently.”	Superintendent
The Initiative helped improve students’ food-related behaviors and choices.	“In the first few years that I was here, we had tons of kids who brought sack lunches to school, but now there are not more than three or four kids with sack lunches each day. They’re choosing to participate in the school lunch. And I think that that’s because they really like the food that they’re getting in the cafeteria.”	Principal
The Initiative helped schools establish community involvement and partnerships around school food and health and wellness.	“There is a nonprofit called Veggie Rescue that gleans local produce. And the School Food Initiative was very helpful in helping us set up a partnership with them. Our production kitchen has received about 16,000 pounds of fresh fruits and vegetables through Veggie Rescue.”	Superintendent
The Initiative contributed to improving teacher participation in school food.	“I love the fact that I can go in on the days I don’t bring a lunch and purchase a fresh salad with raw broccoli, raw cauliflower, and spinach. I never ate the school food before the school brought in the salad bar.”	Teacher
The Initiative contributed to improving families’ food literacy and related practices.	“Parents will sometimes bring in outside food for lunch as a treat, and we check everything that is brought in to make sure there are no sodas or sweets for the students. We explain that those foods aren’t allowed, and explain why they aren’t allowed. So, little by little, we’re educating parents.”	Principal

Theme	Illustrating Quote	Study Participant
Barriers to change		
Initial resistance to change.	"We were afraid of failure. We were used to doing the work one way and were now being encouraged to do it a different way. Change is really hard for people."	Food Service Staff
Rigidity of Federal and State guidelines and related policies.	"The federal government is extraordinarily intrusive. Navigating state and federal regulations is very, very difficult, so it took hours and hours of work to set up something as simple as a salad bar. Often, the regulations get in the way of serving fresh, healthy farm to table food."	Superintendent
Cafeteria Infrastructure.	"I think one of the challenges that we have is the delivery of meals, especially lunch. We don't have the staff nor the technology we need to expedite the delivery of our meals in the most efficient manner."	Principal
School food personnel employment practices.	"For me the pay is a huge issue. There are people like me who love doing this and feel like we can make a huge difference for the children, but may not stay in the field because we're not being compensated for the amount of work and effort that goes into it."	Food Service Staff
Facilitators to change		
Support and involvement from key stakeholders.	"The key is having a superintendent that's going to provide cover for the food service directors and who is willing to make changes that others may be upset about. It's also important to have a food service director that's willing to take the heat."	Superintendent
Personal belief systems.	"I was very supportive of the concepts behind healthy food and teaching students about the food chain and healthy lifestyles when I came into this role. So while the shift to scratch cooking preceded my tenure, I was extremely happy to continue working in that way."	Superintendent
Incremental change.	"We ran a pilot at two schools. And you know what? The pilot passed with flying colors. We actually made a profit at these two schools. The kids liked the food. So, because both of the schools were successful, we decided to roll it out to other schools as well."	Food Service Director
Aligned community attention.	"I think there is a general knowledge about the importance of nutrition here in the community at large, so I know the kids are getting some of this information at home as well."	Food Service Staff

Theme	Illustrating Quote	Study Participant
Facilitators to change		
Shared skill set and shared beliefs about importance of healthy food.	"Culinary Boot Camp helped us to all get on the same page. When a group is trained all together like that, then the slate is clean. Everybody's got a job and knows what it is. And now we've got a really productive, streamlined kitchen."	Food Service Staff
Sustainability		
The new way of working is the "new normal."	"We now have a pretty solid, well-functioning Health and Wellness Committee in our district. I feel like the School Food Initiative got the ball rolling, and now it's our job to carry the torch."	Principal
Champions of the cause will continue progress.	"We have a staff member who wants to keep improving the school food system, and I know she will continue to pursue these things beyond the School Food Initiative support. She wants to do away with all the processed food, and do nothing but scratch cooking in every school, and I believe she'll do it."	Food Service Staff
Concerns about sustainability.	"I am concerned about how we will continue the scratch cooking and food literacy programs. I've seen programs come and go before, and it's sometimes inevitable."	Food Service Staff
Overall		
Overall	"I think we have to get back to this very basic idea that your health and your family come first, and if you can take care of those things all else will follow. We have to focus on the fact that we are doing it for the children, and that once we do this for them they're going to have just what they need to be successful in the 21st century."	Principal
Overall	"Well, because now they get a variety (of fresh and healthy foods) they can see that what they're eating at home is not the only thing in their lives, and as they grow older they'll have a different palate."	Food Service Staff
Overall	"So for me, when I cook now, I don't just cook. I make sure that I put intention and feeling into what I'm doing because I think that transfers to the people who eat it, the children who put it into their bodies. I feel like I'm making a difference in the lives of children."	Food Service Staff

APPENDIX I: THEORY OF CHANGE

Use school food and related systems as a mechanism to create a community of healthy children and their families across Santa Barbara County and a system that helps them make educated food choices throughout their lives.



APPENDIX J: REFERENCES

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