

# Key Ingredients for Cooking Up New School Food Systems

An Evaluation of  
the Orfalea Fund's  
School Food Initiative



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### About Evaluation Specialists

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# EXECUTIVE SUMMARY

## INTRODUCTION

The Orfalea Fund (TOF) began working to improve the quality of school food and promote food literacy throughout Santa Barbara County public schools in 2007 through its School Food Initiative (SFI). Key components of this effort were training and offering direct support to food service personnel, providing funding for school and district kitchen equipment and infrastructure, and supporting a variety of school-level food literacy programs. The SFI occurred in the midst of national and regional attention to school food issues. This fortunate timing made it possible for the SFI to support and accelerate positive changes that may have already been underway.

The SFI is now drawing to a close, and the Fund has taken a number of steps toward understanding the value and impact of their investments and passing on lessons learned. One of these steps was contracting with an independent outside evaluator, Evaluation Specialists, to carry out a rigorous mixed-methods evaluation of this work.

This report presents findings from the qualitative component of the evaluation. We gathered data in semi-structured in-person and phone interviews with 46 individuals across Santa Barbara County. We present narrative descriptions about the SFI implementation, outcomes (particularly effects on students), sustainability, and promising practices for replication. The full report summarizing findings from all evaluation components will be prepared and disseminated in late Fall 2015.



The goals of this mixed-methods evaluation were to answer the following evaluation questions:

Which elements of the SFI were most valuable?

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How did the SFI influence each of the intended outcomes?

.....

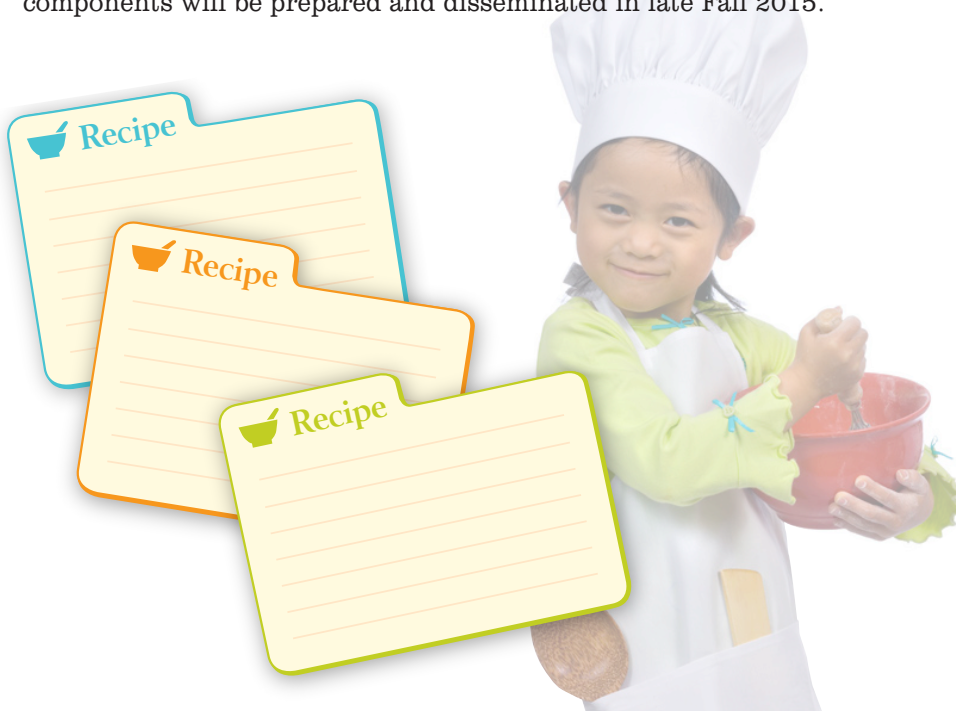
What were the barriers to and facilitators of successful SFI-related change?

.....

What content and resources do schools and districts believe they need to know and have to sustain the SFI-initiated efforts?

.....

What are the best practices of the SFI?



## FINDINGS



### Which elements of the School Food Initiative were most valuable?

Three elements of the SFI were most commonly reported as being valuable:

**Culinary Boot Camp.** The combination of hands-on exercises, classroom-style curriculum, and opportunities to interact with other food service personnel was described as valuable and energizing. Training participants felt they learned a broad spectrum of important professional content, including:

- 🍏 Food safety requirements
- 🍏 Knife skills
- 🍏 Recipe conversions
- 🍏 Baking techniques
- 🍏 How to use modern/industrial kitchen equipment
- 🍏 Organization skills
- 🍏 Practices for enhancing positive team relationships
- 🍏 Cohesion with colleagues

**Kitchen and infrastructure grants.** These grants provided funding for specialized kitchen equipment and kitchen resources that were necessary to apply the intentions and expertise learned at the Culinary Boot Camp.

**School-based food literacy programming, particularly the SFI's support of school gardens.** The SFI supported many food literacy programs and efforts, and each was seen as valuable. However, the SFI support of the installation or enhancement of school gardens was seen as instrumental in teaching food literacy to children and helping them connect the dots between where food comes from and the food they are offered at school.

Study participants less frequently mentioned the value of the following SFI elements, though they were referenced as valuable as well.

**On-site targeted technical assistance.** Support and technical assistance was provided to school staff participating in the SFI in an “on-demand” and “continuous” manner via phone, email, and in-person.

**Efforts to improve school culture.** The SFI sought to assist districts in attempts to shift school culture and school wellness policies by encouraging them to initiate Wellness Committees or by galvanizing existing committees.



Three building blocks of the SFI were identified as the foundation for all initiative elements:

- 1 a vision of change
- 2 a strategy for success
- 3 an understanding of the need for layers of support.

Synergy between initiative elements and the comprehensive nature of the initiative overall were key aspects of its positive influence.



## How did the SFI influence each of the intended outcomes?

Study participants most commonly reported that the SFI accelerated improvements in:

**Students' food literacy.** Students' exposure to new foods has improved their understanding about nutrition and food systems. This was most commonly reported by study participants serving younger students.

**Food-related school policies and culture.** Wellness Committees, created or encouraged by support from the SFI, have developed and implemented school policies that have resulted in shifts in the following:

- 🍏 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

**School food quality and what is offered to students.** Schools added more fresh fruits and vegetables to their menus, sourced more organic and local goods, and used healthier scratch-based recipes to serve less processed and more nutritious meals.

### **School food personnel expertise and empowerment.**

Improvements include:

- 🍏 Cooking knowledge: school food personnel learned efficient techniques for scratch cooking as well as how to do math conversions to translate recipes for large student bodies.
- 🍏 Nutrition knowledge: school food personnel had a better understanding of nutrition and its influence on health.
- 🍏 Personal confidence and empowerment: school food personnel felt a new sense of accountability for and ownership of for their work.
- 🍏 Personal and other perceptions of the role of school food personnel: study participants felt that the role of school food personnel in improving children's health was more apparent.

**School food service facilities.** The SFI provided grants for large kitchen instruments and small kitchen equipment, and supported full kitchen redesigns. These tools positioned schools to engage in scratch cooking in ways they could not have without them.

Study participants less frequently mentioned improvements in the following outcomes, though the SFI was described as accelerating improvements in them as well.

**Students' food-related behaviors and choices.** Some students were making healthier food choices, though this may be due to the healthier option now being the default choice. This was most commonly reported by study participants serving schools and districts with high proportions of high-needs students. However, some study participants felt that teaching students, particularly high school students, about moderation rather than relying on restriction as a teaching tool could be a better approach to improving student health.



**Community involvement and partnerships around school food and health and wellness.** The SFI facilitated relationships between school districts, school sites, and schools and local partners, as well as helped them to identify creative ways to engage parent communities.

In addition to these seven intended outcomes, study participants identified two additional outcomes of the SFI. The SFI contributed to improvements in:

**Teacher participation in school food.**

Teachers and administrators ate more school food following improvements in the quality of the meals and engaged more with students around healthy habits.

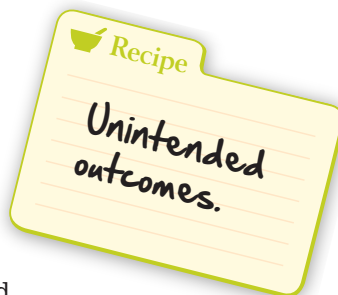
**Families' food literacy and related practices.** Parents were introduced to healthy food concepts and new food products because their students were exposed to them at school and the schools intentionally engaged families around food in creative ways.

In a survey conducted at the end of each interview, all study participants reported that the community's efforts to improve school food, those of TOF as well as other aligned efforts, were impactful. All also reported that the School Food Initiative made strong contributions to these efforts.

Study participants frequently linked certain SFI elements to specific outcomes, indicating they perceived those elements to have affected the outcomes. Specifically, they reported connections between:

- 🍏 Kitchen and infrastructure grants → improvements to school food service facilities
- 🍏 Kitchen and infrastructure grants → improvements to school food quality and what is offered to students
- 🍏 Culinary Boot Camp → improvements in the expertise and empowerment of food service personnel
- 🍏 School gardens → improvements in students' food literacy

Organizations launching similar initiatives with an interest in a specific outcome rather than the entire collection of outcomes should consider focusing their efforts on the SFI component linked to the outcome of their greatest interest.



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

Study participants identified several challenges in implementing the SFI activities and a variety of facilitators that helped them to overcome those challenges.



### 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.

**Rigidity of Federal and State guidelines and related policies.** Regulations were felt to be overly restrictive, often limiting creativity in the food service department and were not conducive to scratch cooking.

**Cafeteria Infrastructure.** Schools had a greater need for volunteers and improved infrastructure to handle the higher demand that resulted from improved school food.

**School food personnel employment practices.** School food personnel employment practices did not reflect the importance of their work in influencing student health. These employment practices included low financial compensation, lack of benefits and scheduling flexibility, and low social status.

### FACILITATORS OF CHANGE

**Support and involvement from key stakeholders.** The support of key individuals, such as district leadership, and stakeholder groups facilitated positive changes in school food and school food systems.

**Personal belief systems.** Alignment between study participants' personal belief systems and the values of the SFI 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, facilitated success.

**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.

**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.



## What content and resources do schools and districts believe they need to know and have in order to sustain SFI-initiated efforts?

A sense of optimism regarding sustainability of these efforts was expressed by many study participants for the following reasons.

**The new way of working is the “new normal.”** Practices related to scratch and healthier cooking are now systematized and part of the routine.

**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 the work and believe in its value.

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Schools and districts would benefit from further support from funders or the SFI partners to increase the likelihood of sustainability. Specifically, they need:

**Additional training.** Training for new staff was an expressed priority as a response to inevitable staff turnover.

**Funding for school gardens.** Schools need additional support, in terms of people-resources and funding, to continue these efforts.

**Wellness committee support.** Committees would benefit from additional support in their efforts to implement food-related 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.** Districts would benefit from support to improve the compensation and employment structure of school food personnel, and advocacy of better alignment between State and National standards for school meals to the realities of the school environment and the benefits of scratch cooking.





## What are the best practices of the SFI?

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.



Promising practices?

### **Develop a practical understanding and remain up-to-date on the school food environment and related regulations.**

School food quality is a hot topic 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.** Develop a strategic and holistic plan before launching an initiative to ensure efforts are thoughtful and connected. Stay focused on the goal of improving children's lives rather than on initiative outputs. This focus will help all involved weather challenges related to change and keep stakeholders engaged.

**Consider a multi-pronged approach to support.** Provide training, funding, follow-up support, and a peer support mechanism to equip school food personnel with the necessary skill set, equipment, infrastructure, and peer accountability system. Include a training component that underscores the importance and contribution of school food personnel in improving children's health and well-being.

**Get stakeholders on board early and hold them accountable for change.** Engage all stakeholder groups (parents, administration, teachers, students, coaches, and school food personnel) before launching an initiative to improve school food to increase the likelihood of initiative success. Engaging them prior to rollout will create buy-in and ease implementation efforts.

**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. 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.

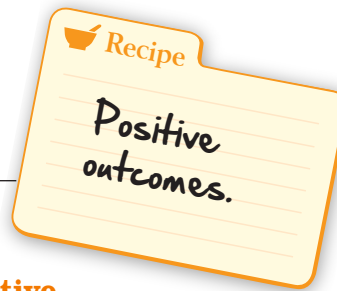
**Embrace change and start small.** Help stakeholders embrace change rather than fear it. The work of improving school food is often perceived as daunting, but is easier than anticipated and gets easier with time.

**Engage policy-makers and advocates.** Be prepared to discuss relevant policy-level issues with key stakeholders who can support or impede change. Discuss the value of school food personnel, particularly ways to demonstrate their value through better compensation and more respect, and also unintended consequences of school food regulations, with activists and policy-makers. Take action to contribute to system-level change in funding for public education and public health.

**Develop and sustain persistence.** Develop and foster a sense of tenacity in your stakeholders. Some food service departments experienced a dip in revenue as a result of initial implementation of scratch-cooking techniques, but later became profitable as a result of perseverance and creativity, and increased participation in the school meals program.



## CONCLUSION



**It is clear that the School Food Initiative had profound and positive outcomes.** Study participants felt strongly that the School Food Initiative accelerated change in school food quality and students' exposure to and acceptance of healthy foods. These improvements in food literacy were especially noticed in younger students. They also felt that the school food personnel were better trained and equipped to engage in healthy cooking techniques, and the school culture and policies were more aligned to the goal of improving students' health, as a result of the SFI. Further, the impacts of the SFI seem to be as relevant to students from lower socioeconomic status families as they are to those from higher socioeconomic status families, though the SFI may more positively influence high-needs students' food-related behaviors and choices. Study participants expressed commitment to continuing to support healthy eating efforts and sustaining positive changes for the good of school food personnel as well as students.

*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



## BACKGROUND

The Orfalea Fund (TOF) contributed \$12.75 million in its efforts to improve the quality of school food in Santa Barbara County between 2007 and 2015. The Fund initially conducted site specific 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 specific needs, they engaged with willing schools and districts, emphasizing stakeholder involvement throughout the process. They launched a strategic multi-pronged initiative aimed at empowering public school districts within the county to implement and sustain nourishing cooked-from-scratch food service operations. This effort, the School Food Initiative (SFI), primarily entailed:

### CULINARY TRAINING AND DIRECT TECHNICAL SUPPORT FOR SCHOOL FOOD PERSONNEL

Over a 5-year period, the School Food Initiative (SFI) hosted 13 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. Following the training, SFI provided Chef Instructors to schools to offer hands-on support in integrating the lessons learned at the Boot Camps into their daily practice.

### FUNDING FOR SCHOOL KITCHEN EQUIPMENT AND INFRASTRUCTURE

SFI 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, procurement of locally grown produce and student participation in school meals. Grant agreements included mutually-agreed upon stipulations that were designed to ensure the investments drove Initiative goals and were achievable for the food service operations.

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

SFI supported the implementation of a variety of school-based food literacy 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

SFI recognized that a prevailing culture of health and wellness on school campuses was instrumental in sustaining its work. Chef Instructors helped existing Wellness Committee meetings 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.



“...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.”

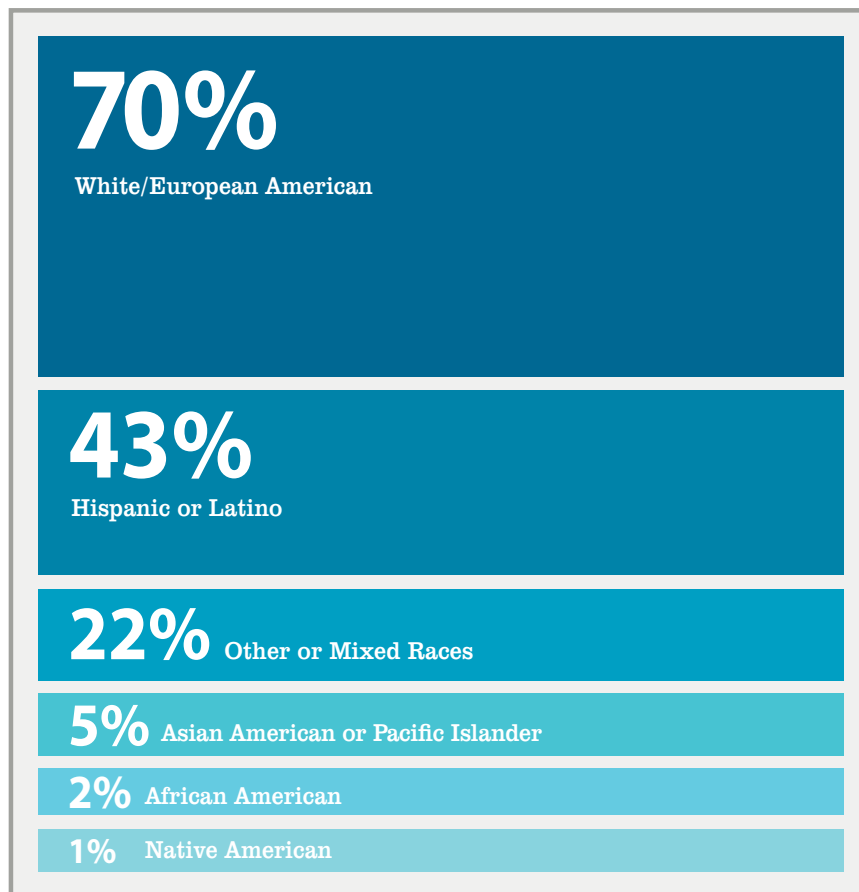
— Food Service Staff

## 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 socio-economically. 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 had children under the age of 18 living with them, and the average family size was 3.33. The median income for an SBC 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 come in a variety of shapes and sizes and serve 65,000 PreK-12 students across 20 school districts. Their general mission is to educate children academically, emotionally, physically, and socially. 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



# EXPECTED INITIATIVE OUTCOMES AND EVALUATION QUESTIONS

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

- 🍏 Students' 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
- 🍏 Community involvement and partnerships around school food and health and wellness

See Appendix C for a glossary of these terms.

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The goals of this mixed-methods evaluation were to answer the following evaluation questions:

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

See Appendix E for a presentation of quotes that illustrate each finding presented in this report.



# EVALUATION METHODS

Working collaboratively with TOF staff, Evaluation Specialists identified evaluation goals and evaluation questions, and selected a mixed methods evaluation approach. This report presents findings of the qualitative component of the evaluation. Results from the full evaluation will include these and other findings and be presented in a separate report.

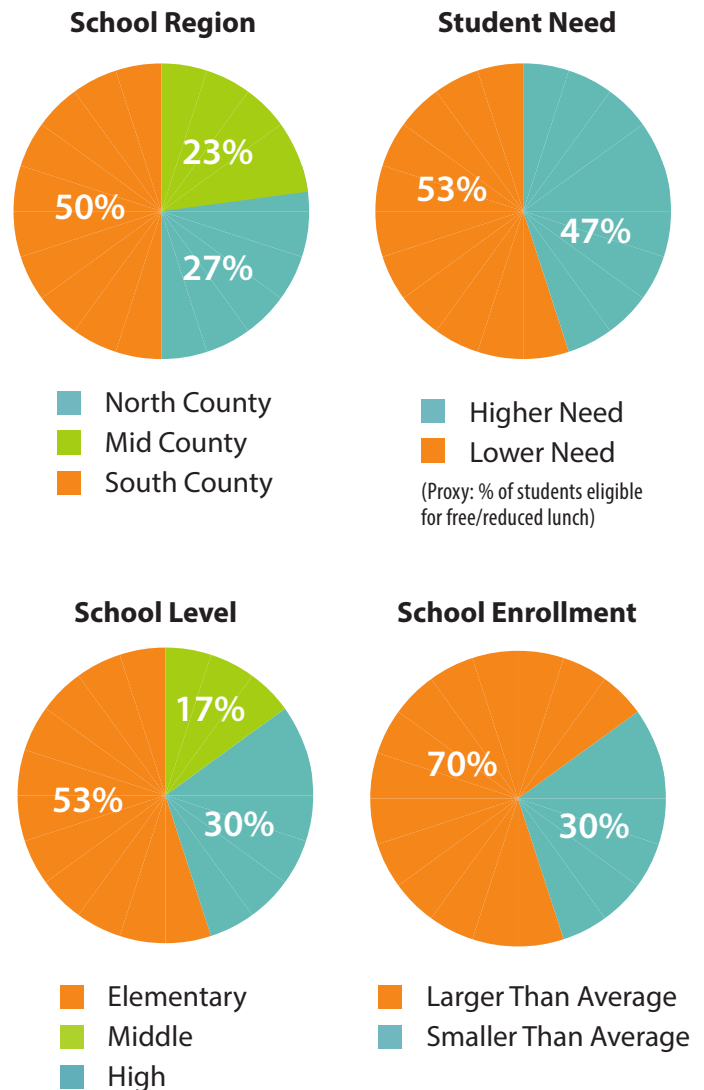
ES invited 61 individuals representing a variety of roles, school characteristics, and SFI engagement levels to participate in in-depth, one-on-one interviews. We conducted in-person and telephone interviews with 46 of these individuals. The sample consisted of Chef Instructors employed by TOF, district- and school-level leadership, and school-level staff, including district-level food service directors and school-level food service staff (together identified as “school food personnel” throughout this report). The group of individuals interviewed offered perspectives representative of various regions of the county, schools with both low and high proportions of students eligible for free or reduced-price lunch, schools serving various grade levels, both large and small schools, and schools and districts that engaged with SFI at various degrees.

The final sample is reflective of the intended sample in each stratum of interest and aligned to county-level figures as well as SFI diffusion. ES did not invite schools that had chosen not to be engaged with the SFI to the study, and we are therefore unable to speak to reasons for this resistance. Further information about the methods used for this component of the evaluation can be found in Appendix A. The semi-structured interview guide used for these interviews can be found in Appendix B.

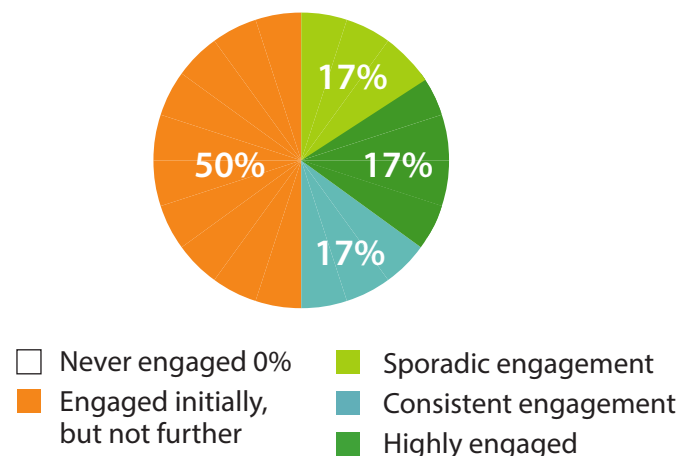
## SFI Interview Sample

Characteristic	% of Response Rate
<b>Full Sample</b>	<b>75% (n=46)</b>
Chefs	<b>100% (n=4)</b>
District-Level Staff	<b>100% (n=12)</b>
School-Level Staff	<b>67% (n=30)</b>

A diverse group of schools were represented in the study



## Level of Engagement with the SFI



## FINDINGS

### Which elements of the School Food Initiative were most valuable?

To understand which components of the School Food Initiative were valued most, study participants were asked to discuss their impressions of each element that they felt contributed to the success of the SFI. Each of the assessments of value described below emerged from the study participants in response to these questions.

Three elements of the SFI were most commonly reported as being valuable: the Culinary Boot Camp, the kitchen and infrastructure grants, and the school-based food literacy programming, particularly the SFI's support of school gardens. The on-site targeted technical assistance and efforts to improve school culture offered through the SFI were also reported as being valuable, though fewer study participants articulated this perspective.

#### THE CULINARY BOOT CAMP WAS SEEN AS THE MOST IMPORTANT ELEMENT OF THE INITIATIVE.

Study participants appreciated that trainings were offered throughout Santa Barbara County. They mentioned that this method led to the school food service community across the county being engaged in parallel efforts to improve school food quality, which increased momentum. The combination of hands-on exercises, didactic curriculum, and opportunities to interact with other food service personnel was described as valuable. Many mentioned it was vital that they were offered multiple opportunities to attend trainings. Importantly, participants felt they learned a broad spectrum of important professional content, including:

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

The Culinary Boot Camp trainings informed, energized, and empowered food service personnel and led to a more cohesive and confident team. Team cohesion was seen as a significant outcome of the training. Because school teams were invited to learn together, personnel left the trainings with similar levels of expertise, energy for reform, and common expectations.

A minority of study participants mentioned they would have appreciated a greater sense of accountability being expected of training participants to follow practices learned in Boot Camp or committed to as part of the receipt of funding. Some felt this accountability to the SFI would have increased the likelihood that lessons learned were implemented at the schools. Study participants also mentioned that they would have appreciated additional training in connecting the dots between Culinary Boot Camp recipes and federal and state regulations.



*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.

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. The Culinary Boot Camp taught them skills to transition to scratch cooking from processed, pre-packaged prepared foods; the grants provided funding for specialized equipment and kitchen resources that were necessary to do much of the scratch cooking. These two elements of the SFI were described as synergistic: the training increased intentionality and developed expertise, while the funding provided the materials necessary to apply this intentionality and expertise.

The vast majority of study participants felt the funding was valuable, though three mentioned that additional funds were needed to maximize that value. For instance, two study participants mentioned the need for funding to support resources necessary for construction (such as the labor hours of a project manager) in addition to the actual construction costs, and another mentioned the need for funding to maintain the new equipment.

## THE SCHOOL FOOD INITIATIVE VARIETY OF FOOD LITERACY PROGRAMS, SPECIFICALLY ITS SUPPORT OF SCHOOL GARDENS, WERE PARTICULARLY VALUABLE TO THE EFFORTS TO IMPROVE SCHOOL FOOD.

The SFI supported many food literacy programs and efforts. Three specific programs stood out to study participants.

**1] School Gardens.** The SFI 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 SFI also provided garden education managers (GEMs) to teach students about the food life cycle within this hands-on setting alongside the SFI Chef Instructors who conducted “Chef in the Garden” cooking and tasting events.

**2] Jr. Chef Day.** The SFI launched Jr. Chef Day, 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 SFI.

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

Each of these programs was perceived to be valuable by study participants. The school gardens, however, were reported as being 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 Day was seen as useful in terms of engaging children in cooking and exposing them to new foods. Only two study participants mentioned FoodPlay in our conversations, though both felt the program was valuable in helping to promote food literacy.



*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



**ON-SITE TARGETED TECHNICAL ASSISTANCE (“IN-SERVICE CULINARY SUPPORT”) OFFERED BY SCHOOL FOOD INITIATIVE CHEF INSTRUCTORS WAS AN IMPORTANT ASPECT OF THE INITIATIVE.**

Support and technical assistance were provided to school staff participating in the SFI 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, 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). One study participant mentioned that the Chef Instructor would appear at her school unexpectedly and make staff feel they were being assessed rather than supported, though this individual still found value in the support.

*“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

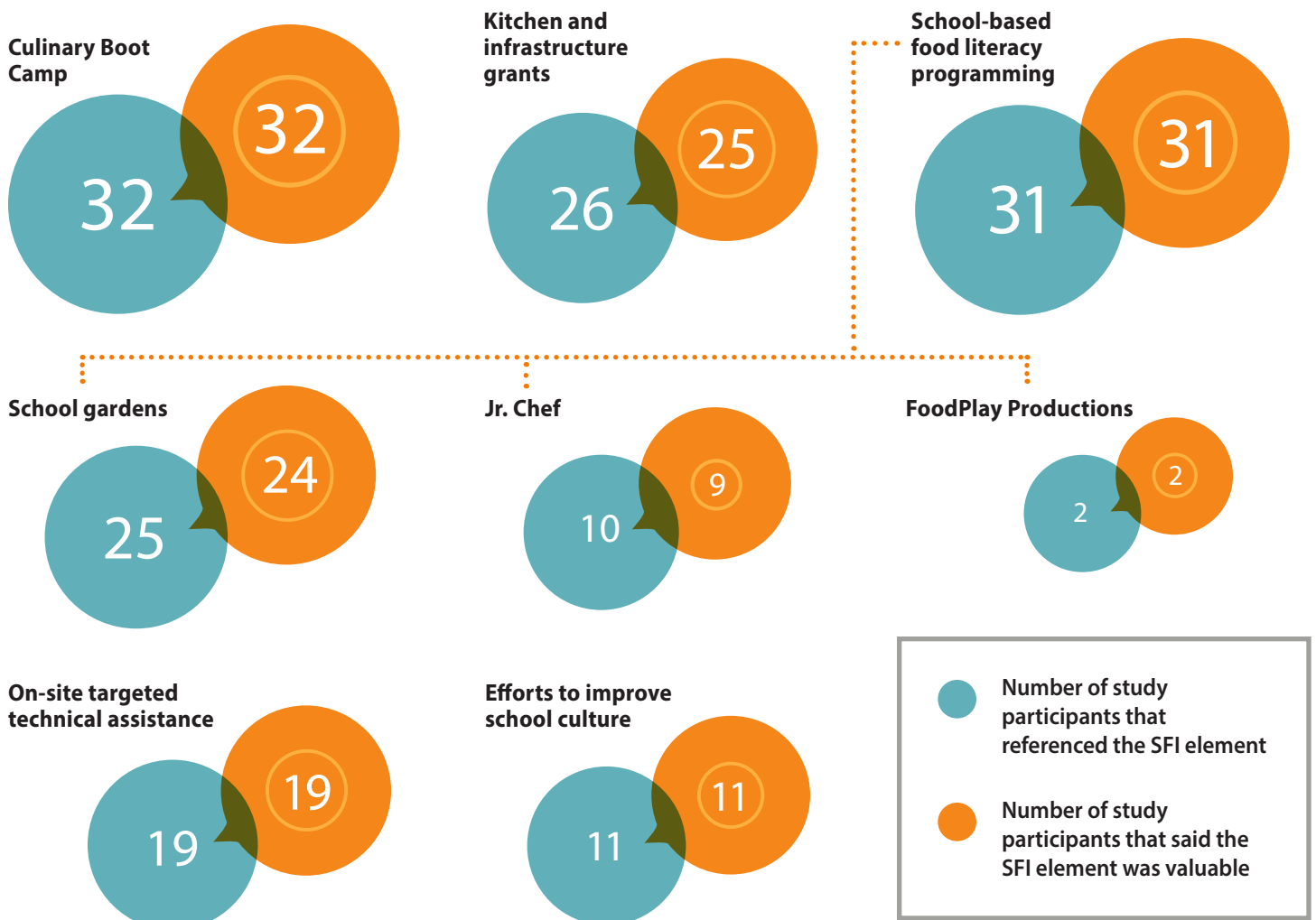
**THE SCHOOL FOOD INITIATIVE EFFORTS TO IMPROVE SCHOOL CULTURE RELATED TO SCHOOL FOOD WERE EFFECTIVELY ALIGNED WITH REGIONAL AND FEDERAL EFFORTS.**

The SFI sought to assist districts in attempts to shift school wellness policies by encouraging them to initiate Wellness Committees or by galvanizing existing committees. Many of the wellness policies created as part of these efforts were crafted at the district level and were aligned to federal and state guidelines. These policies were then adopted and enacted by the schools. Examples of such policies include regulating the kinds of foods used for rewards and celebrations, limiting student access to vending machines, and restricting products used for fundraising to exclude high-sugar products. Many of these committees were established prior to engagement with the SFI, but study participants who connected the initiative to committee efforts felt it helped spur progress.



**Figure 1** below presents the number of study participants that referenced each SFI element and the number of those participants who reported that the SFI element was valuable.

**Figure 1: Value of each SFI element.**



**The School Food Initiative offered valuable support in a variety of additional ways.**

Some study participants mentioned 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 many opportunities the School Food Initiative created for food service directors and staff to come together and share ideas were also perceived to be highly valuable.

**A vision of change, a unified strategy for success, and an understanding of the need for layers of support were essential building blocks of the School Food Initiative.**

The Orfalea Fund's big-picture, long-term, and mission-based strategy to improve school food and food literacy through the SFI was described by study participants as pivotal. For instance, one principal said, *"I feel like [the School Food Initiative] didn't have just one component of healthy students that they were interested in. It seems like they had an overall more global idea of how to bring healthy food and healthy habits to students."* Another said, *"Many times with grants, we see the action first. We want to give a grant to do this instead of the vision. And I like that the School Food Initiative put the horse before the cart and said, 'We want to improve students' eating habits. And we want to improve the connection between students and food.' And then everything else flowed from that."* Study participants also felt that the layers of support, from group trainings to individual targeted technical assistance, were an essential element of the SFI.

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

To understand the ways the School Food Initiative influenced change, and the context within which this influence occurred, study participants were asked to describe changes in each of the intended initiative outcomes:

- 🍏 Students' food literacy
- 🍏 Food-related school policies and culture
- 🍏 Schools food quality and what is offered to students
- 🍏 School food personnel expertise and sense of empowerment
- 🍏 Food service facilities
- 🍏 Students' food-related behaviors and choices
- 🍏 Community involvement and partnerships around school food and health and wellness

Study participants most commonly reported that the SFI accelerated improvements in students' food literacy; food-related school policies and school culture; school food quality and what is offered to students; the expertise and empowerment of school food personnel; and school food service facilities. Students' food-related behaviors and choices, and community involvement around school food, were mentioned as being influenced by the SFI efforts as well, though to a lesser degree. Finally, study participants identified two additional outcomes related to the SFI: teacher participation in school food and families' food literacy.

### THE SCHOOL FOOD INITIATIVE HELPED IMPROVE STUDENTS' FOOD LITERACY.

Noticeable improvements in students' food literacy were reported by many study 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.

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.



“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

## THE SCHOOL FOOD 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 offering recess before lunch. Wellness Committees, created or encouraged by support from the School Food Initiative, used this information to draft school policies.

These policies then contributed to changes in school practices and overall school culture. Practices that shifted as a result of this work included:

- 🍏 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

District policies, and therefore school policies, reflected these positive shifts. However, some study participants believed that the policies should be focused on moderation rather than restriction, and chose to enforce them in this way.

## THE SCHOOL FOOD 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 via school meals were frequently reported by study participants. Specifically, they noted that schools added more fresh fruits and vegetables to their menus, sourced more organic and local goods, and used healthier scratch-based recipes to serve less processed and more nutritious meals. Only three study participants mentioned that either the food on the plate had not improved, or that the improvements were not embraced by school communities because taste was sacrificed.

## THE SCHOOL FOOD INITIATIVE HELPED BUILD EXPERTISE AND A SENSE OF EMPOWERMENT IN SCHOOL FOOD PERSONNEL.

Study participants reported observing a noticeable change in the expertise and empowerment of food service professionals. They described improvements in:



*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



**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 understanding of nutrition overall as well as specific related topics such as hidden sugars, how 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.

#### THE SCHOOL FOOD 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 positioned schools to engage in scratch cooking in ways they could not have without them, making scratch cooking feasible and more efficient. SFI 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 SCHOOL FOOD INITIATIVE HELPED IMPROVE STUDENTS’ FOOD-RELATED BEHAVIORS AND CHOICES.

Positive changes in students’ food-related choices were identified by some study participants. This was thought to be because the healthier choice was now the default choice due to new campus-wide food-related restrictions and cafeteria options regulated by state and federal guidelines. 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 of their students choose to eat healthier options on campus rather than going off-campus to eat at local fast food hot spots.



*“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

However, some study participants believed that restricting food choice did not teach students to make healthier choices. They believed this approach to encouraging healthy eating was not effective because it was not sustainable beyond the school environment. Teaching students about moderation rather than relying on restriction as a teaching tool was recommended as an alternative or addition.

Study participants from southern Santa Barbara County, those associated with high schools, and those associated with schools that were less engaged with the SFI were less likely to report that students' behaviors and choices shifted as a result of this work. In contrast, study participants from other regions of the county, those from schools serving younger students, and those that engaged more fully in the SFI efforts were more likely to report such changes resulting from the SFI. Additionally, study participants from schools or districts serving higher than average proportions of high-needs students were more likely to report changes in students' food-related behaviors than those that served fewer high-needs students.

### **THE SCHOOL FOOD 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 community 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 vegetable salvaging organization now provides a significant amount of produce to the school's food service department. Study participants reported that the School Food Initiative helped them identify several important partners and also provided funding to these key partners (such as the vegetable salvaging organization) so that they could in turn support the schools. The SFI also helped schools come up with creative ways to engage their parent communities, such as inviting them to monthly meals.



*“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 SFI: teachers’ participation in school food and families’ food literacy and related practices.

**THE SCHOOL FOOD 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 meals.

*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.*

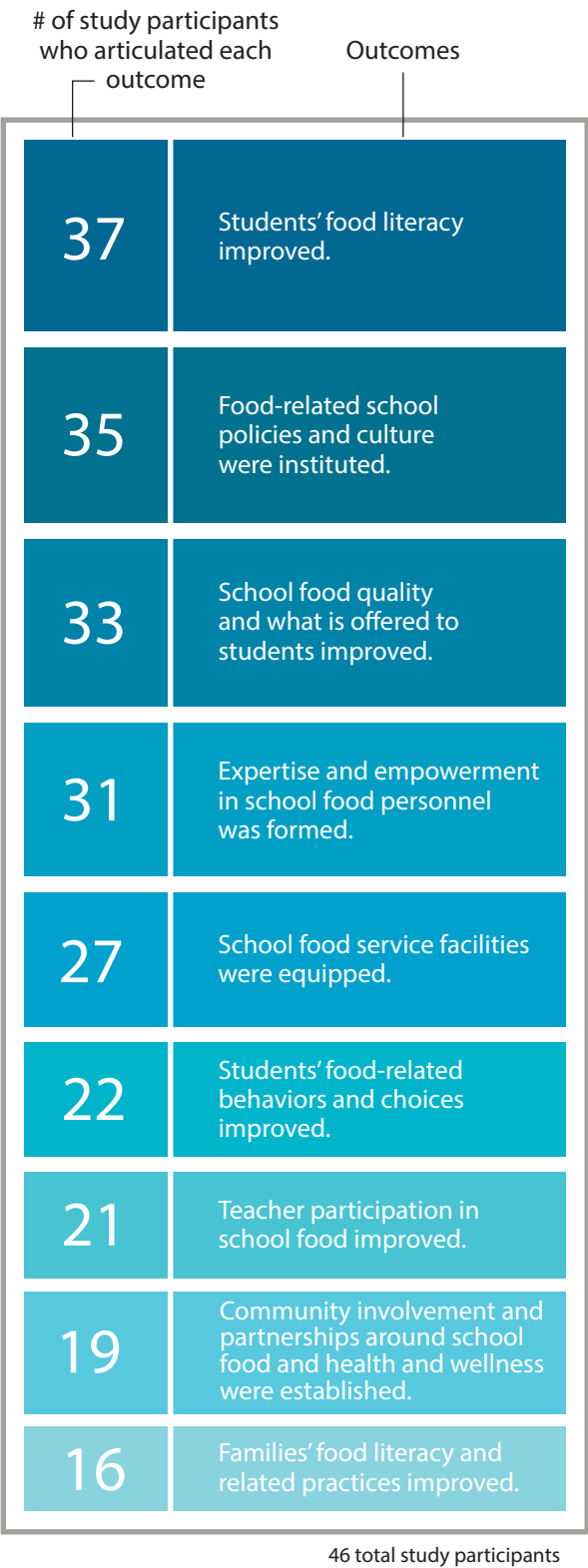
— Teacher

**THE SCHOOL FOOD 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.

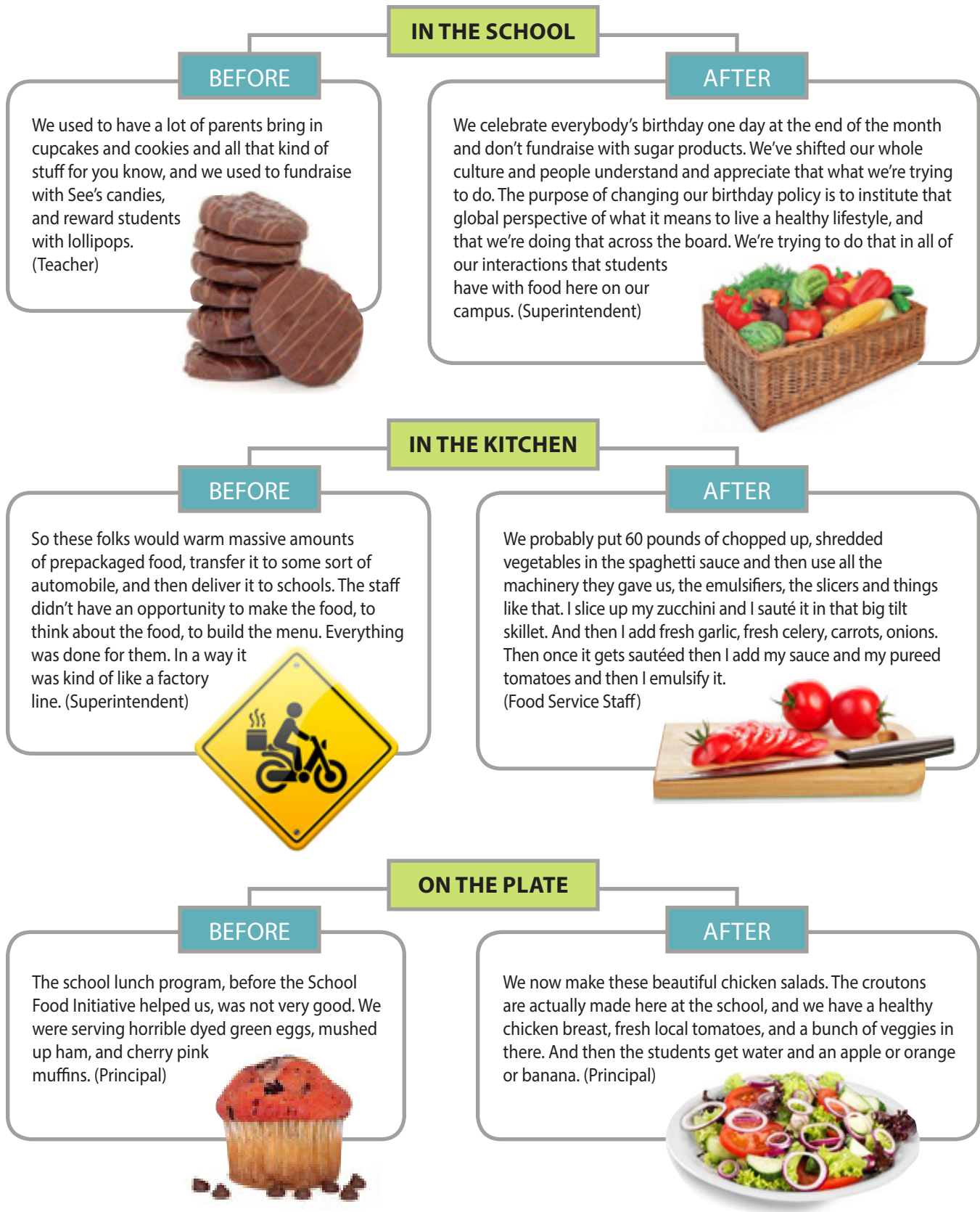
Figure 2 presents the number of study participants who articulated examples of each outcome.

Figure 2: SFI Influences on Outcomes



**Figure 3** 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 3: Changes in key school food environments before and after theSFI.**



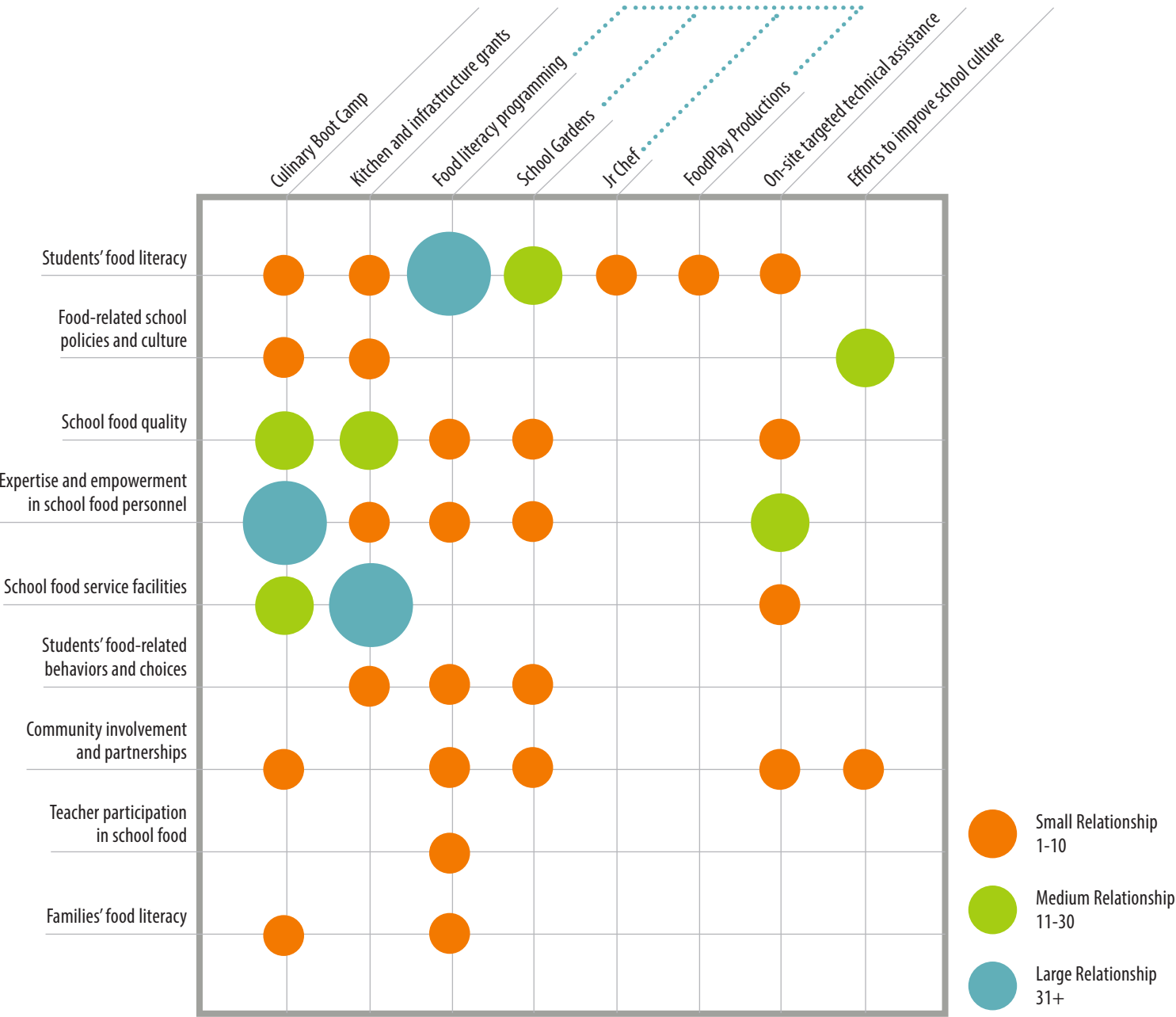


CERTAIN INITIATIVE ELEMENTS WERE FREQUENTLY LINKED TO SPECIFIC OUTCOMES, INDICATING THAT STUDY PARTICIPANTS PERCEIVED THOSE ELEMENTS TO HAVE INFLUENCED THE OUTCOMES.

Figure 4 below illustrates verbal linkages between SFI elements and outcomes. Specifically, participants verbally linked improvements to food service facilities with the kitchen grants and funding that district and school kitchens received. They made similar connections between kitchen grants and what was offered to students in the school cafeterias. Connections also suggested a relationship between the Culinary Boot Camps and improvements in the expertise and empowerment of food

service workers. Finally, study participants felt that the majority of SFI elements contributed to improvements in student food literacy, and most frequently attributed the outcome of improved student food literacy to the school gardens. Funders of similar initiatives that are interested in a specific outcome rather than the whole collection of them should consider focusing their efforts on the SFI element most frequently linked to their outcome of interest.

Figure 4: Perceived linkages (or relationships) between the SFI elements and outcomes.



**THE IMPACTS OF THIS INITIATIVE ARE AS RELEVANT TO STUDENTS FROM LOWER SOCIOECONOMIC STATUS FAMILIES AS THEY ARE TO THOSE FROM HIGHER SOCIOECONOMIC STATUS FAMILIES.**

The School Food Initiative offered support to schools and districts across Santa Barbara County. Schools in the county serve students from lower socioeconomic status (SES) backgrounds as well as those from higher SES backgrounds. Upon disaggregating the results by school characteristics known to serve as proxies for child SES (such as region of the county that the school resides within and percent of students eligible for free- or reduced-price lunch), we learned that the findings did not drastically differ across these characteristics, though study participants representing schools that serve higher proportions of high-needs students more commonly reported a positive shift in students' food-related behaviors and choices. 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. Future study is recommended to validate this inference.

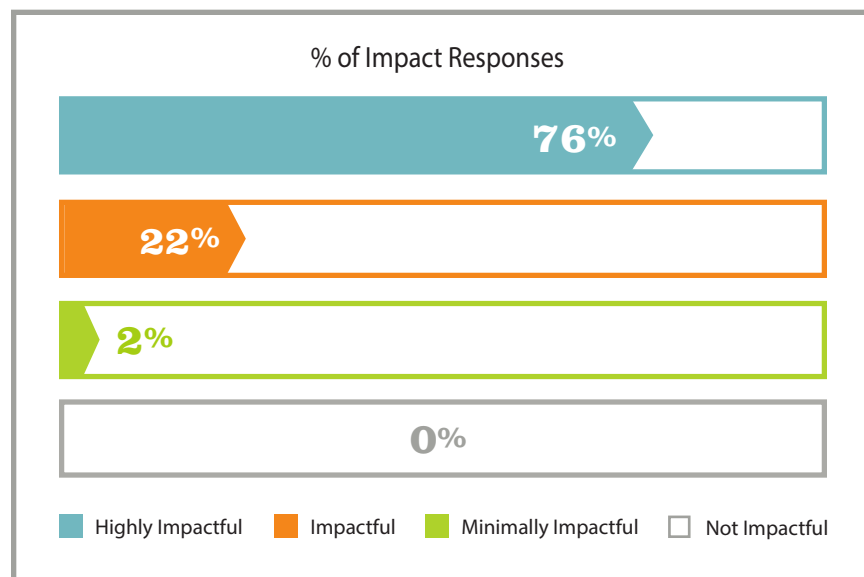
*“The children whose families don’t have many resources can be on the free lunch program and the students can at least get a good meal at school that way. So for those students, this might be the best meal that they have during the day. And it’s a good and healthy one.”*

— Principal



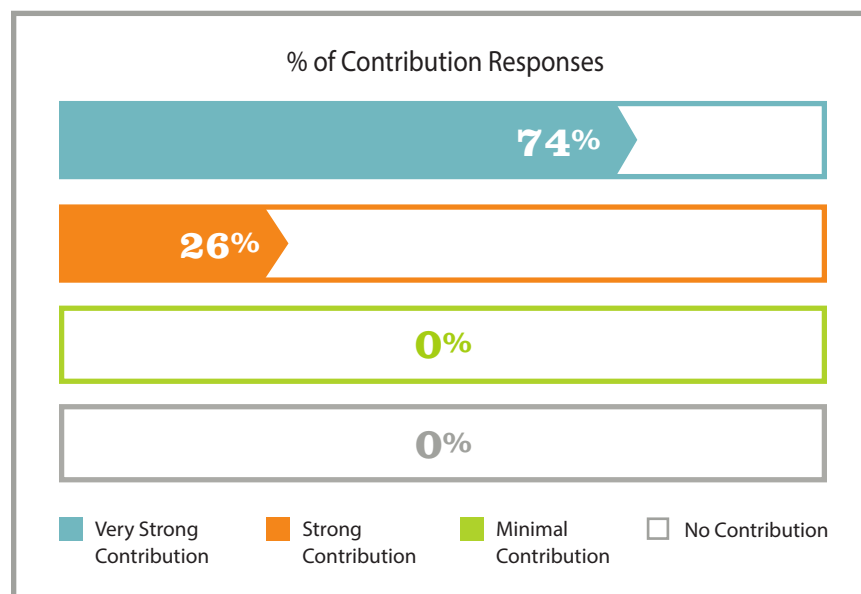
## To what degree were school food improvement efforts impactful?

As part of the interview, study participants were asked to use a four-point scale to verbally rate the degree of overall impact of efforts to improve school food. All of the study participants who provided an assessment of impact reported that the efforts were impactful.



## To what degree did the SFI contribute to the impacts?

Study participants were also asked to use a four-point scale to verbally rate the degree of SFI contribution to the positive impacts on school food. All of the study participants who provided an assessment of contribution reported that the SFI made a strong or very strong contribution to these efforts.



## What are the barriers to and facilitators of SFI-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.

#### 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.

*“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

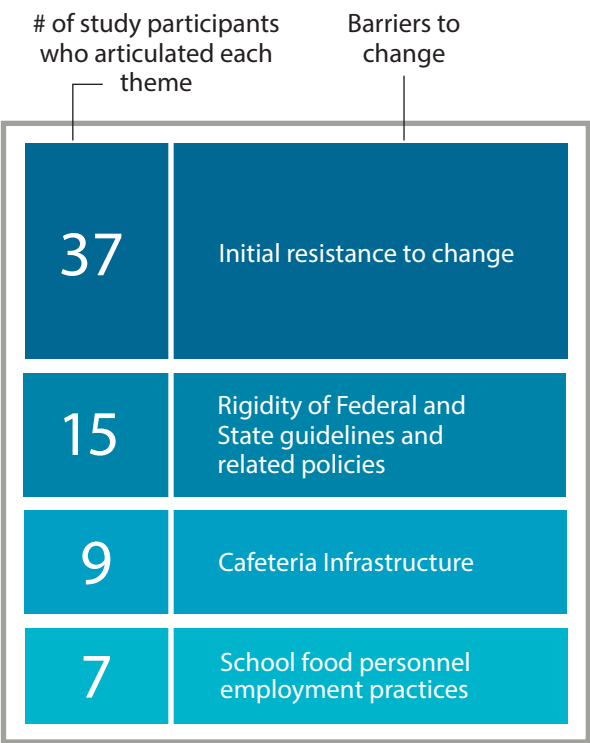
Improved school food is believed to have led to higher levels of student participation in school meals. There is a need for more volunteers and for infrastructure to handle this higher demand. Specifically, schools need a more sophisticated point-of-sale (POS) system and more help serving students in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

Figure 5 illustrates the number of study participants who articulated each barrier to change.

Figure 5: Barriers to change



## 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, facilitated 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.

**Figure 6** illustrates the number of study participants who articulated each facilitator of change.

**Figure 6: Facilitators to change**



What content and resources do schools and districts believe they need to know and have in order to sustain the SFI-initiated 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 SFI 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.

*“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

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.

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.

Figure 7 illustrates the number of study participants who articulated each sustainability theme.

Figure 7: Sustainability



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 SFI-activities reflected both their satisfaction with the SFI and the sense of loss they feel at the SFI's coming end.

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

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

#### **Additional Training**

Training for new staff, particularly 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 SFI-related 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.





## What are the best 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.

### DEVELOP A PRACTICAL UNDERSTANDING AND REMAIN UP-TO-DATE ON THE SCHOOL FOOD ENVIRONMENT AND RELATED REGULATIONS.

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



Recipe

Understand  
school food.



Recipe

Create vision.

### CREATE AN OVERARCHING VISION AND STRATEGIC PLAN.

Preemptively develop a strategic plan and think about the work holistically. Develop a strategic plan before launching initiatives to ensure efforts are thoughtful and connected. Stay focused on the goal of improving children's lives rather than on initiative outputs. 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.

### CONSIDER A MULTI-PRONGED APPROACH TO SUPPORT.

Provide training, funding, follow-up support, and a peer support mechanism to equip school food personnel with the necessary skillset, equipment, infrastructure, and peer accountability system. Include a training component that underscores the importance and contribution of school food personnel in improving children's health and wellbeing. Equipment and physical infrastructure are often necessary to implement change. Ongoing support from experts and peers helps staff address new and ongoing challenges.



Recipe

Provide multi-level  
support systems.



Recipe

Engage  
stakeholders.

### 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 more able to 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.



### Recipe

*Assess  
readiness.*



### Recipe

*Have no fear.*

## 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 is 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 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.



### Recipe

*Shift policy.*



### Recipe

*Have patience  
and perseverance.*

## DEVELOP AND SUSTAIN PERSISTENCE.

Develop and foster a sense of tenacity in your stakeholders. Some food service departments experienced a dip in revenue as a result of initial implementation of scratch-cooking techniques, but later 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.

## The future of school food initiatives: What else do we need to know?

### THE SCHOOL FOOD FIELD WOULD BENEFIT FROM ADDITIONAL STUDIES TO FURTHER EXPLORE TOPICS IDENTIFIED IN THIS EVALUATION.

Despite these positive evaluation results, unanswered questions remain. One of these questions is how best to differentiate work to improve school food at the high school level from work at the earlier grade levels. Which elements of similar initiatives should be different based on the grade levels served at the schools? How do initiative efforts influence high school students who have not been exposed to healthier eating prior to the initiative? We are also still unsure on the short- and long-term effects of relying on food restriction to positively influence lifelong eating habits rather than teaching moderation. Further, given the qualitative nature of this component of the evaluation, further investigation of the following pertinent questions would be beneficial to future funders and the field at large:

- 🍏 Are these and related efforts leading to a quantifiable increase in consumption of healthier foods?
- 🍏 Is students' exposure to and acceptance of healthier foods within the school environment, particularly starting at a young age, translating to active and sustainable engagement with healthier foods outside the school environment?
- 🍏 Are the lessons of school-based healthy eating influencing students' families? How and to what extent?
- 🍏 What are the financial implications of improving the compensation and benefits of school food personnel?

Regardless of these additional questions, our findings have important implications both for current SFI partners and for organizations and funders interested in pursuing similar efforts to improve school food.



# APPENDICES

## APPENDIX A: METHODS DETAILS

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Ongoing collaboration between Evaluation Specialists (ES) and the Orfalea Fund (TOF) supported the development and refinement of all the following stages of this component of the evaluation.

- 1] **Define evaluation goals and questions** — 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 the qualitative component of this evaluation.
- 2] **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 SFI. 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).
- 3] **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 SFI 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 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 participate in the evaluation did not respond to these invitations.

- 4] **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.



- 5] **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 SFI; 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)
<b>School-Level Characteristics</b>		
<b>School Region</b>		
North County	27%	27%
South County	47%	50%
Mid County	27%	23%
<b>Student Need (Proxy: % of students eligible for free/reduced lunch)</b>		
Higher Need	53%	47%
Lower Need	47%	53%
<b>School Level</b>		
Elementary	60%	53%
Middle	20%	17%
High	20%	30%
<b>School Enrollment</b>		
Larger than average	67%	70%
Smaller than average	33%	30%
<b>Level of Engagement with the School Food Initiative</b>		
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.

- 6] **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, & Knafl, 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.

## APPENDIX B: INTERVIEW GUIDE

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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 SFI 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 C: GLOSSARY

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**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 D: REFERENCES

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## APPENDIX E: TABLE OF SUPPORTING QUOTES

Theme	Illustrating Quote	Study Participant
<b>SFI Elements</b>		
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 School Food 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 School Food 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 SFI prodded us, the policies are really starting to take a hold."	Food Service Director
<b>SFI Impacts</b>		
The School Food 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
<b>SFI Impacts</b>		
The School Food 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 School Food 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 School Food 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 School Food 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 School Food 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 School Food 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 School Food 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 School Food 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
<b>Barriers to change</b>		
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
<b>Facilitators to change</b>		
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
<b>Facilitators to change</b>		
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
<b>Sustainability</b>		
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
<b>Overall</b>		
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