THE ISSUE
How important is food preparation and presentation in a school meal program?

KEY FINDING:
Even at sites where staff and parents report that hunger is a dominant issue, access to freshly prepared meals (as opposed to cooked meals in plastic wrapped containers) appears to influence both parent perception of the quality of the school meal and student consumption of the school meal.

PARTICIPANT COUNTS:

<table>
<thead>
<tr>
<th></th>
<th>Observations</th>
<th>Interviews/Focus Groups</th>
<th>Survey Respondents</th>
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<tbody>
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<td>6,437</td>
<td>K-5 Students</td>
<td>72 School Personnel</td>
<td>9,078 Parents</td>
</tr>
<tr>
<td>6,437</td>
<td></td>
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<td>1,693 School Personnel</td>
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</tbody>
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Why Does the Quality of School Food Matter?

Childhood nutrition impacts cognition, concentration, energy levels, and educational outcomes [1-6]. Yet, 10 percent of households with children nationwide are food insecure, and that includes more than 2.3 million children in California alone [7]. School settings are critical to addressing food insecurity among students as the average student consumes more than a third of their daily calories at school [8] and school meal programs protect low-income students from food insecurity [9, 10]. High rates of childhood obesity also persist, and have doubled over the last 30 years [11]. Strong school-based policies and programs to support healthy eating are important to reversing childhood obesity rates [12].

But for a quality school meal program to support nutrition, or help reduce childhood obesity or address food insecurity, students need to eat the school meals. Producing healthier and quality school meals often requires better kitchens, equipment, and staff training to help districts improve the taste, presentation, and overall quality of the whole school meal. There is a key gap in school meal program policies nationally: too little attention is paid to providing the technical assistance, training, and kitchen equipment necessary to improve the quality of school meals [13] and school food leaders in urban school districts have shared that inadequate kitchen facilities and equipment challenge their ability to improve school meal programs [14].
Improving School Food through Rethinking School Lunch Oakland and California Thursdays®

Parents, students, staff and food justice advocates have been concerned about the quality of Oakland Unified School District (OUSD)’s school meals for over a decade. In 2009, OUSD partnered with the Center for Ecoliteracy (CEL) to launch Rethinking School Lunch Oakland (RSLO). RSLO envisions comprehensive school meal reform through a 10-pronged approach that considers food access, student learning, and the long-term fiscal and environmental sustainability of the program [15]. RSLO assumes improving student eating of healthy food requires complimentary strategies [16]. But the centerpiece of RSLO is its “whole plate” approach—meaning it aims to provide students an entire meal from fresh, healthy, California sourced food.

Complete implementation of RSLO requires new kitchen facilities and equipment, and the most significant facilities project is still underway. After securing financing but before construction began, OUSD and CEL launched the California Thursdays® Program, combining procurement shifts, menu development, and marketing strategies to produce a healthy school meal from California-sourced ingredients. A California Thursdays meal in OUSD is also a student taste-tested meal. But right now, only some students get a freshly-prepared California Thursdays meal while other students get the same meal prepared one to two days in advance at another OUSD site that is then frozen, delivered, and warmed that day and served in a plastic-wrapped container.

Our Research

We began research to understand whether OUSD’s investments into kitchens and equipment under RSLO are likely to help improve student eating of healthy school meals. To answer this question, we observed K – 5 students during meal time, interviewed parents and staff at school sites, and analyzed California Healthy Kids Survey responses to explore how well the current school meal program is serving K – 5 students before OUSD’s kitchens and equipment investments are completed.
What Did We Learn?

• **Food insecurity is a dominant issue at high poverty school sites.** Staff and parents reported that hunger is a dominant issue at school sites where more than 75% of students qualify for free and reduced price meals. The majority of students at high-poverty elementary schools also live within low food access neighborhoods (see map).

![Map: Food Access and Student Residential Location Data](image)

- **Oakland Unified School District**
  - Food Access and Student Residential Location Data

  2017-2018 student residential location data for all students attending elementary schools where more than 75% of the students qualified for Free or Reduced Priced Meals in 2016-2017

  **Students living in low food access areas (1/2 mile radius): 54.83%**

  - Student residence
  - Low food access in 1 mile radius
  - Low food access in 1/2 mile radius

  Sources:
  - USDA Food Access Research Atlas (food access by census tract)
  - OUSD Research, Data and Assessment (student residence)

  Map: Food Access and Student Residential Location Data

• **School meal programs can help.** Staff report that the school meal program is the primary way that sites can respond to student hunger.

• **Access to freshly prepared meals makes a difference in whether students try the food.** We observed that while all students received a high-quality California Thursdays meal, whether students had access to freshly prepared meals appeared to strongly influence whether students ate, or even tried, the improved school meals. Kindergarten students at all sites without access to freshly prepared food had difficulty opening the school meal packaging.

• **Freshly prepared meals appears to influence parent perception of the quality of the school meal program.** Parents at sites with availability of freshly prepared food are almost twice as likely to perceive the school meals as healthy.
What did school site participants say about how food packaging influences whether students will eat school meals?

“You’ve seen the packaged food. It’s not very appealing. You eat with your eyes, and I think the unappealing nature of the foods, the visuals [are] enough to discourage some kids from even trying it. . . . There’s also a culture that is in place that keeps kids who are hungry, who are in desperate need of food, who might even enjoy the taste of the food, from eating the food because it’s seen as uncool. Like the hip kids, they don’t eat cafeteria food, which is great for those whose parents pack them a delicious lunch to bring, but it’s unfortunate for those who aren’t in that situation. So, they come with nothing and they get nothing because if they dare take cafeteria food, they’ll be made fun of.”

“You will see that some of them literally pick up their lunch and put it in the share bin and they don’t even try it. Just because the option is so unappealing to them. And, to me that’s devastating because they don’t even want to try it. And then so they’re going literally the whole day [without eating].”

![Image](image.png)


**Implications for school meal innovations to improve student eating of healthy school food:**

Improving the quality, preparation, and appearance of school food—through operations shifts that require kitchen and equipment upgrades, and staff training—appears important to improving student eating of healthy school food.

References: