

## Current State of Scratch-Cooked and Minimally Processed Foods Served in California Schools

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### AUTHORS:

Juliana Cohen, ScD, ScM, RD  
Leah Chapman, PhD, MPH  
Maria Gombi-Vaca, PhD  
Christina Hecht, PhD  
Ken Hecht, JD  
Marlene Schwartz, PhD  
Monica Zuercher, PhD, MS  
Lorrene Ritchie, PhD, RD  
Wendi Gosliner, DrPH, RD

### Summary:

School meals play an important role in supporting children's nutrition. Despite substantial improvements in the nutritional quality of school meals following the 2010 Healthy, Hunger-Free Kids Act, concerns remain regarding the quality of the foods served in schools. This may be due to growing evidence of potential adverse outcomes associated with ultra-processed foods, which are industrial formulations designed to enhance the hyper-palatability and shelf life of foods. To better understand how frequently schools serve scratch-cooked and/or minimally processed foods, a sample of 430 school food authorities (SFAs) across California was surveyed. This brief presents findings from this sample of California SFAs. Overall, roughly one-fifth (21%) of SFAs said their schools served scratch or modified scratch-cooked foods (i.e., minimally processed) daily, however, only 5% reported serving exclusively scratch or modified scratch-cooked foods. The majority of SFAs said their schools regularly served convenience foods (i.e., pre-portioned, heat and serve items) and/or quick preparation foods (i.e., made by assembling and portioning foods with pre-cooked ingredients), which primarily consist of processed and ultra-processed foods. Conversely, most SFAs reported challenges related to insufficient funding—including for school meals, to recruit new staff, and for necessary kitchen equipment or kitchen facilities/storage. SFAs reporting they received federal grants to support local food purchasing or equipment also reported that their schools served minimally processed foods more frequently. Therefore, additional funding may be needed to support schools' ability to serve more scratch-cooked and minimally processed foods.

## Background:

School meals play an important role in supporting children's nutrition, with many children receiving up to half their daily energy intake from school meals.<sup>1</sup> The Healthy, Hunger-Free Kids Act of 2010 made substantial improvements to the healthfulness of meals served in schools—including more fruits, a variety of vegetables, and whole grains, as well as lower sodium levels—making schools the healthiest source of nutrition on average for US children.<sup>2-4</sup> However, to date there are no regulations around the degree of processing permitted for school foods. In particular, there are growing concerns regarding “ultra-processed” foods, which are industrial formulations that contain flavors, additives, and other ingredients not found in a home kitchen and are designed to enhance hyper-palatability and shelf life.<sup>5</sup> Recent studies suggest these foods are associated with increased risk of metabolic syndrome and other adverse health outcomes in children and adolescents.<sup>5-10</sup> Research also suggests that students may negatively perceive school meals that contain more processed foods, which may result in lower school meal participation levels.<sup>11</sup> However, the prevalence and level of processing of school foods in schools is currently unknown.



School meals can include foods prepared using a variety of methods, the definitions of which are continuing to evolve and may not be consistently understood by all stakeholders. The 2023 data described in this brief explore meals that were reported to be (1) **school-made, scratch or modified scratch cooked foods** (i.e., primarily minimally processed foods, with additional processed foods made with culinary ingredients, such as freshly baked rolls); (2) **quick preparation foods** (i.e., foods that primarily involve assembling/portioning foods with pre-cooked ingredients that typically include processed and/or ultra-processed foods, such as canned fruits or sandwiches made with pre-packaged bread and deli meats); or (3) **convenience foods** (i.e., pre-portioned, heat and serve items, which are typically made with ultra-processed foods, such as hot dogs, chicken nuggets, or French fries). This research brief summarizes the preliminary results of an evaluation examining the frequency of serving scratch/modified scratch cooked; quick preparation; and convenience foods in a statewide sample of school food authorities.

## Methods:

In 2023, surveys were sent to all school food authorities (SFAs) within California as part of a larger national school meal study. The survey was developed in collaboration with multiple stakeholders, including anti-hunger organizations and school nutrition organizations, and was pilot tested among SFAs. This brief presents results of an analysis of survey questions regarding the frequency of serving: (1) convenience foods (i.e., pre-portioned, heat and serve items); (2) quick preparation foods (i.e., foods that primarily involved assembling and portioning foods with pre-cooked ingredients); and (3) school-made, scratch or modified scratch preparations of foods (i.e., primarily minimally processed foods). A total of 430 SFAs in California completed the survey, representing 32.6% of the SFAs in California. Results

were analyzed accounting for district-level demographics (e.g., urbanicity, student enrollment levels, and poverty levels).

## Summary of Findings:

Across the sample of California SFAs in this study:

**School-Made, Scratch or Modified Scratch Cooked Foods** (i.e., primarily minimally processed foods)

- 21% of SFAs reported **offering scratch/modified scratch cooked foods *daily***.
- 48% of SFAs reported **offering scratch/modified scratch cooked foods *at least three times per week***.
- 5% of SFAs reported **serving exclusively scratch/modified scratch cooked foods**.
- SFAs were **significantly more likely to serve scratch/modified scratch cooked foods** if they:
  - Received a **federal or state grant** to increase procurement of local produce ( $p<0.05$ ).
  - Received a **federal or state grant** for new kitchen equipment ( $p<0.05$ ).

**Quick Preparation Foods** (i.e., foods that primarily involved assembling and portioning foods with pre-cooked ingredients)

- 27% of SFAs reported **offering quick preparation foods *daily***.
- 49% of SFAs reported **offering quick preparation foods *at least three times per week***.

**Convenience Foods** (i.e., pre-portioned, heat and serve items)

- 29% of SFAs reported **offering convenience foods *daily***.
- 51% of SFAs reported **offering convenience foods *at least three times per week***.

When examining challenges that may impact the ability to serve more minimally processed foods in schools:

- 42% of SFAs reported that **reimbursement rates for school meals are insufficient** to cover the full cost of producing meals.
- 64% of SFAs reported **insufficient wages to recruit new staff** as a moderate or significant challenge.
- 50% of SFAs reported **inadequate kitchen equipment** as a moderate or significant challenge.
- 63% of SFAs reported **inadequate kitchen facility and/or storage space** as a moderate or significant challenge.

## Implication and Recommendations:

The results of this analysis suggest that over half of schools in California in 2023 regularly served convenience and/or quick preparation foods, which were most likely a combination of processed and ultra-processed foods. School food authorities in California reported a number of barriers to increasing the use of minimally processed foods in schools, including insufficient funding for food or to recruit new staff, as well as challenges related to infrastructure and equipment typically necessary for more scratch cooking. Importantly, federal and state grants to schools—such as those that support the procurement of local foods—were associated with a greater frequency of serving scratch/modified scratch cooked foods (i.e., primarily minimally processed) in schools. Overall, the research suggests that schools face several barriers to serving more scratch and minimally processed food offerings. Investments in school kitchens and financial support for fresher foods can help school food service leaders successfully make this transition.



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