

Scratch Cooking for Schools



Transitioning to a scratch cook operation can help schools see improvement in five key areas. The below sections describe the positive impact scratch cooking can have on school meal participation, student health and wellness, academic performance, developing financially sustainable meal programs, and supporting the local economy and reducing environmental impact.

PARTICIPATION

Increases school meal participation | Districts focusing on higher quality meals have higher rates of participation. Studies show increased Average Daily Participation (ADP) between 3 - 16% (9% average) and increased generated revenue^{1,2,3}

Creates appealing foods | Scratch cooking enhances the appeal of school meals, providing access to local fresh fruits and vegetables, and reflecting students' cultural backgrounds^{2,4,5}

RESULTS

- Chef Ann Foundation's Get School Cooking 2016 cohort reported 7.1% increase in ADP, increased purchase of fresh produce and improved meal quality⁶
- In Ventura County (CA), ADP doubled when 5 districts collaborated to improve meal quality⁴



RESULTS

- Scratch cooking is cheaper or can be the same cost as purchasing pre-prepared food and can be a cost-effective way to expand variety in healthy school lunches⁸
- Oakland Unified School District and Minneapolis Public Schools significantly reduced costs, up to \$24,000/year, by transitioning to scratch cooking^{9,10,11}

FINANCIALLY SUSTAINABLE MEAL PROGRAMS

Generates savings and revenue | Schools serving healthier options had more net revenue, with the same or reduced cost of production (particularly using plant-forward meal planning), increased participation, increased local procurement, and reduced waste^{2,4,7,8,9}

Creates valued workforce | Investing in personnel enhances employee engagement, morale, knowledge, and classroom-to-cafeteria connections. Professional development and talent recruitment have enhanced meal quality, student satisfaction, and increased participation^{3,9,10,11,12}



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ACADEMIC PERFORMANCE

Improves attendance and participation | Well-nourished children are less frequently tardy or absent, have fewer behavioral problems, have increased school engagement, and participate in class at a higher rate^{4,14}

Raises test scores and grades | Better-quality diets are linked to improved cognitive function, longer attention spans, increased work capacity, better grades, and improved test scores, with a particularly positive improvement for low-income students^{3,4,14,15,17}

RESULTS

Research demonstrates that improving the nutritional quality of school meals appears to be the most promising and cost-effective way to improve student learning, compared to reducing class sizes¹⁵

RESULTS

Studies show increased access to freshly produced food promotes healthy behaviors, including improving healthy food consumption, consuming less unhealthy foods and sodas, and increasing activity³

HEALTH & WELLNESS

Promotes healthy behavior | School districts that increased the proportion of fresh and scratch cooked foods offered reported improved student nutrition and increased consumption of fresh fruits and vegetables, increased physical activity, and improved cognitive function^{1,2,3,13,14,15}

Decreases unhealthy foods and risk of disease | Scratch cooking eliminates processed foods high in sodium, added sugars, and saturated fats, lowering the odds of overweight/obesity, diabetes, and high blood pressure^{4,10,16}

LOCAL ECONOMY & ENVIRONMENT

Supports local farmers | Scratch cooking makes local procurement more attainable, improves community support, and increases school meal acceptance and participation. Each dollar invested in farm to school stimulates an additional \$0.60-\$2.16 of local economic activity^{3,9,12}

Reduces environmental impact | With a shift to more plant-forward meals, districts report significantly reducing their water, carbon, and waste footprints⁹

RESULTS

- Minneapolis Public Schools serves an entirely locally sourced meal one day each month. On these days, the district saw 15% increased participation⁹
- Using fewer animal foods, Oakland Unified School District reported saving 42 million gallons of water and reducing their carbon footprint by 14%⁹

For more information please contact Chef Ann Foundation's Director of Programs, Emily Gallivan, at emilyg@chefannfoundation.org



1. USDA Food and Nutrition Service. (2019). School Nutrition and Meal Cost Study: Volume 4 - Student participation, satisfaction, and dietary intakes (summary). United States Department of Agriculture. Retrieved from <https://fns-prod.azureedge.net/sites/default/files/resource-files/SNMCS-Volume4-Summary.pdf>
2. The Pew Charitable Trusts and the Robert Wood Johnson Foundation. (2016). School Meal Programs Innovate to Improve Student Nutrition. Kids' Safe & Healthful Foods Project. Retrieved from http://www.pewtrusts.org/~media/assets/2016/12/school_meal_programs_innovate_to_improve_student_nutrition.pdf.
3. National Farm to School Network. (2017). The Benefits of Farm to School. National Farm to School Network. Retrieved from <http://www.farmtoschool.org/Resources/BenefitsFactSheet.pdf>.
4. Center for Ecoliteracy. (2014). Making the Case for Healthy, Freshly Prepared School Meals. Center for Ecoliteracy. Retrieved from https://www.ecoliteracy.org/sites/default/files/uploads/shared_files/CEL_making_the_case_research.pdf.
5. Cohen, J., et al. (2012). Long-Term Impact of a Chef on School Lunch Consumption: Findings from a 2-year pilot study in Boston middle schools. *Academy of Nutrition and Dietetics*, 112(6):927-33. Retrieved from <http://www.projectbread.org/reusable-components/accordions/download-files/plate-waste-study.pdf>.
6. Chef Ann Foundation. (2017). School Food Support Initiative: Year One Grantee Evaluation. Chef Ann Foundation (internal document).
7. Pearce, H., et al. (2005). Double Dividend?: Promoting good nutrition and sustainable consumption through healthy school meals. *Sustainable Consumption Roundtable*. Retrieved from <https://research-repository.st-andrews.ac.uk/bitstream/handle/10023/2253/sdc-2005-double-dividend.pdf?sequence=1>.
8. Woodward-Lopez, G., et al. (2014). Is Scratch-Cooking a Cost-Effective Way to Prepare Healthy School Meals with US Department of Agriculture Foods? *Journal of the Academy of Nutrition and Dietetics*, 114(9):1349-1358. Retrieved from <https://www.sciencedirect.com/science/article/abs/pii/S2212267214004985>.
9. Friends of the Earth U.S. (2018). Scaling Up Healthy, Climate-Friendly School Food: Strategies for Success. Friends of the Earth U.S. Retrieved from https://1bps6437gg8c169i0y1drtgz-wpengine.netdna-ssl.com/wp-content/uploads/2018/09/Climate-Friendly-Food_Full-Report.pdf.
10. Girouard, D. and FitzSimons, C. (2019). Reducing Barriers to Consuming School Meals. Food Research & Action Center. Retrieved from <https://frac.org/wp-content/uploads/reducing-barriers-to-consuming-school-meals.pdf#page=7>.
11. The Pew Charitable Trusts and the Robert Wood Johnson Foundation. (2013). Serving Healthy School Meals. Kids' Safe & Healthful Foods Project. Retrieved from https://www.pewtrusts.org/-/media/legacy/uploadedfiles/phg/content_level_pages/reports/servinghealthyschoolmealspdf.pdf.
12. Rosenthal, A. and Caruso, C. (2019). Bringing School Food Service Staff Back In: Accounting for changes in workloads and mindsets in K-12 values-based procurement. *Institutions as Conscious Food Consumers*, 261-283. Retrieved from https://www.academia.edu/37479400/Bringing_School_Foodservice_Staff_Back_in_Accounting_for_Changes_in_Workloads_and_Mindsets_in_K-12_Values-Based_Procurement.
13. Behrens, T. K., et al. (2018). Changes in School Food Preparation Methods Result in Healthier Cafeteria Lunches in Elementary Schools. *American Journal of Preventative Medicine*, 54(5,2):S139-S144. Retrieved from [https://www.ajpmonline.org/article/S0749-3797\(18\)30014-X/fulltext](https://www.ajpmonline.org/article/S0749-3797(18)30014-X/fulltext).
14. (UNICEF) United Nations Children's Fund. (2019). Children, Food, and Nutrition: Growing well in a changing world. UNICEF: The State of the World's Children 2019. Retrieved from <https://www.unicef.org/media/61356/file/SOWC-2019.pdf>.
15. Anderson, M., Gallagher, J., and Ramirez Ritchie, E. (2017). How the Quality of School Lunch Affects Students' Academic Performance. The Brookings Institution. Retrieved from <https://www.brookings.edu/blog/brown-center-chalkboard/2017/05/03/how-the-quality-of-school-lunch-affects-students-academic-performance/>.
16. Schober, D., et al. (2016). Evaluation of the LiveWell@School Food Initiative Shows Increases in Scratch Cooking and Improvement in Nutritional Content. *Journal of School Health*, 86(8):604-611. Retrieved from <https://onlinelibrary.wiley.com/doi/pdf/10.1111/josh.12413#accessDenialLayout>.
17. Anderson, M., Gallagher, J., and Ramirez Ritchie, E. (2018). School Meal Quality and Academic Performance. University of California Berkeley: Department of Agricultural & Resource Economics. Retrieved from https://are.berkeley.edu/~mlanderson/pdf/school_lunch.pdf.