



OPPORTUNITY AREA

SUSTAINABILITY AND THE CHANGING FOOD ENVIRONMENT IN SCHOOLS

There's a growing focus on sustainable nutrition issues in schools. It's showing up in school food procurement practices, menus and meal preparation. It's also evident in classrooms, the cafeteria and other areas of the school to help students decide what they eat, understand food systems and production, address food waste, enhance science/STEM education, explore food justice issues and understand where their food comes from. And according to a 2020 GENYOUth Insights survey, students themselves care about this topic and want to learn more.



Healthier School Communities addresses why healthy schools matter today: what's at stake, what progress has been made, what challenges we face and what key opportunities exist. As a society we've learned a great deal over the past two decades about what's needed to create and sustain healthy schools and exactly what's at stake for students and for society if we don't. The report — and this related "opportunity area" brief on sustainable nutrition — provides information and inspiration to spur continued commitment and momentum to create the healthy school environments that whole child success demands.

What's the Issue?

MOVING BEYOND NUTRIENTS

“Eating better” today means more than the nutritional value of food. It also means where food comes from, how it was produced and packaged, where it's available and to whom and how it impacts communities, animals and the planet. It's about the inherent trade-offs and tensions among nutrition, health and the economic, social and environmental dimensions of food, nutrition and eating — and how we all must take part in helping to sustain a fragile planet.

Consumers, including youth, increasingly want to know where the foods they eat come from. Yet while interest in sustainability is high, confusion around environmental sustainability is unfortunately the norm.¹

THE IMPORTANT ROLE OF SCHOOLS

The societal concern with the environment and sustainability is finding its way into schools — and schools are stepping up in innovative ways. In the cafeteria, some schools are switching to compostable serving ware, purchasing food from regional farms/ purveyors, using food grown in school gardens and more. There also is a growing tendency for school districts to use purchasing power to provide food that is healthier for students and the planet. In the classroom, students are learning about food ecosystems and waste, agriculture and food access issues along with traditional nutrition and health education.

“Now more than ever, consumers — including students and schools — are interested in responsibly-produced, nutrient-rich foods like dairy. Ensuring today's youth have access to sustainably produced, nutritious foods and beverages, along with science-based information to help them make good eating choices, is just as important as computers when it comes to learning and flourishing.”

— **Jean Ragalie-Carr**, RDN, LDN, FAND, President,
National Dairy Council

What's at Stake?

SUSTAINABLE EATING: DIFFERENT THINGS TO DIFFERENT PEOPLE

Given that less than two percent of the U.S. population is engaged in farming,² the average American is disconnected from agriculture, conservation and the land. The *2019 Food and Health Survey* of the International Food Information Council (IFIC) Foundation points out that while environmental sustainability has become increasingly associated with the foods we eat as well as our food purchases, “sustainability can mean different things to different people.”³ Not surprisingly, youth also have wide-ranging perceptions in terms of what attributes they think make food sustainable (see “Youth and the Future of Food” on page 4).

HELPING YOUTH LEAD, ACT AND CHOOSE WISELY IN TODAY'S FOOD ENVIRONMENT

This wide range of ideas and associations speaks to the need for education and school food experiences to address the potential for confusion that could prevent youth from understanding and taking action to lead, act or make informed food choices. Aware, informed and engaged youth can be a powerful force for the movement toward food that's “good for me and good for the planet.”

HEALTH, ENVIRONMENTAL AND FINANCIAL BENEFITS

School meals are increasingly, and widely, being viewed as “a platform to promote healthy and sustainable food behavior” in which “[n]utritional, social, practical, educational, economic, political and cultural perspectives” are brought to bear.⁴ School nutrition services have made important modifications around sustainable nutrition through improved efficiency and better planning, say some experts, although most districts say there is more that they could accomplish with better funding.⁵

Today's school food builds on a decade of progress implementing healthy food policies, farm-to-school programs, new procurement practices and food development and delivery innovation. Supporters say this leads to a triple win: incorporating more sustainably produced food into the seven billion meals served annually by U.S. school districts may help to deliver compelling health, environmental and financial benefits.

What's Needed?

USING PURCHASING POWER

District purchasing and food procurement has become a focus of sustainability decisions in schools.⁶ Many districts, including those involved with the [Urban School Food Alliance](#), are using their purchasing power to provide school meals that are healthier for students and the planet. A number of U.S. districts have adopted [The Good Food Purchasing Program](#), which includes guidelines for food suppliers around five value areas: environmental sustainability, fair wages, healthy workplaces, animal welfare and support of students' health and local economies.⁷

REDUCING FOOD WASTE

Students throw away up to one-third of food provided at school, lowering nutritional value for themselves and increasing methane from landfills for society in general. The World Wildlife Fund estimates that food waste adds up, nationwide, to as much as 530,000 tons of food wasted per year in U.S. schools.⁸ One report notes, "Explanations reported for food waste included food-related (palatability and accessibility), child-related (taste preferences and satiation) and program-related (duration, food service policies and coordination) factors."⁹

Some districts are experimenting with sharing uneaten and untouched food — whole fruit, packaged foods and other meal items — that is placed on "designated tables in school lunch rooms."¹⁰ Because of promising results, the use of these "share tables" has been authorized by the USDA as part of the National School Lunch Program and the School Breakfast Program.¹¹

An effective measure in decreasing plate waste has been the offer-versus-serve option in school cafeterias. The USDA recommends allowing students to choose the foods they want to eat, rather than simply presenting pre-chosen foods, thereby reducing what gets thrown away. When combined with involving students in menu planning and in conducting taste tests, waste can be effectively reduced.¹²

GIVING STUDENTS ENOUGH TIME TO EAT

The shortening of school lunch times and breaks, which is unfortunately the norm in many schools, both reduces consumption and increases waste.

An emerging consensus is that "school policies that encourage lunches with at least 25 minutes of seated time might reduce food waste and improve dietary intake."¹³

A related recommendation is to move recess before lunch to stimulate children's appetites with activity, which has been found to increase consumption of fruits and vegetables and increase the fraction of children eating at least one serving of fruits or vegetables by 45%. But it simply makes common sense to give students enough time to finish their lunch.¹⁴

EMPOWERING YOUTH

With these sustainability concerns in mind, it is perhaps most important to remember that, as stated in a 2019 FoodCorps [report](#), it's all about the students. It's easily forgotten that "students value the break from academic learning that lunchtime provides," the report stresses, "and they want a cafeteria experience that provides choices and reflects their cultural identity ... Children are the customers of our nation's school meals program and deserve to be respected as such."¹⁵

"Conversations on sustainable nutrition must be enhanced beyond what students get to eat every day."

— **Alicia Harris**, Principal, Winding Ridge School of Inquiry and Performing Arts (Indiana)

RESOURCES

[Urban School Food Alliance](#) provides professional development, best practices, bid standards and other resources.

[National Farm to School Network](#) has information and resources for connecting schools/ communities with local/regional food producers, school gardens, educational opportunities and more.

[Fuel Up to Play 60](#) has information and opportunities for schools and students to learn, grow, connect and make a sustainably nutritious difference in their school communities.

YOUTH AND THE FUTURE OF FOOD



A 2020 GENYOUth Insights survey, conducted with a nationally representative sample of teens ages 13 to 18 from across the United States, explored youth perspective on sustainable nutrition: everything from how food plays a role in their lives, to how much teens know about where their food comes from, whether (and how much) they connect the food they eat with the health of the planet, where youth are getting food-related information they trust and more.

KEY TAKEAWAYS:

- ▶ Although youth care about food and the environment, they don't know much about how the two are connected, where their food comes from or why it matters. But they are hungry to know more.
- ▶ Youth expect food companies and farmers — and their schools — to keep them informed and help them make healthy, sustainable food choices. But for the most part, that's not happening now.

For information on the survey results and implications, visit www.genyouthnow.org.

What We Can Do

School nutrition programs can leverage their purchasing power to provide meals that are healthier for students and the planet. Implement food waste-reduction practices like sharing tables and offer-versus-serve in the cafeteria. Involve students in menu planning and conducting taste tests. Work with school administrators to give students enough time to eat (at least 25 minutes for lunch), and schedule recess before lunch to improve students' dietary intake and reduce waste.



“Sustainability is for and about the next generation ... We must find better ways to amplify children’s voices and skills for the planet’s healthy future.”

Excerpted from World Health Organization/UNICEF/Lancet report *A Future for the World's Children?*

Educators and school staff can model sustainably healthy practices in the classroom, in the cafeteria and throughout the school community. Start or expand school gardens, and make virtual farm tours available to support education and healthy eating. Expand a traditional focus on the nutritional and health focus of foods to also help students learn about the economic, social and environmental dimensions of food, nutrition and eating. Also emphasize how we all must take part in helping to sustain a fragile planet. (Discovery Education provides [interactive resources](#) to help students learn about modern farming.)

Students can be participants, leaders, champions and influencers for their own healthy futures. The future of sustainability — which includes [the future of food and food systems](#) — will benefit from youth leadership and voice. That's the overarching focus of the recently released

World Health Organization/UNICEF/Lancet report *A Future for the World's Children?* The report asserts, “Sustainability is for and about the next generation ... We must find better ways to amplify children’s voices and skills for the planet’s healthy future.”¹⁶ Students: Let companies know what you like, what you need and how to improve their offerings and information for you and your peers. Visit a farm — online or in person — and learn more. Help create a healthy school that prioritizes “food that’s good for me and good for the planet.” (**Fuel Up to Play 60** has information and opportunity for students to learn, grow, connect and make a difference in their school communities.)

Farmers can engage with the **National Farm to School Network** or the **dairy council** in your community or state. Share your story via school visits, the media, your website, virtual farm tours and outreach with other community partners to help youth understand where their food comes from and how agriculture nourishes us as well as helps protect the land, animals, communities and the planet. How farmers care for the environment, are stewards of the land and take care of their animals are all parts of this equation.

The food industry can support youth well-being through business practices, outreach, information-sharing and social responsibility activities. For example, at point of purchase and on packages, provide youth and other customers with information on where food comes from and how it was sustainably produced. Engage in dialogue with youth through schools, social media, events and outreach programs. Invite youth input on your products, practices and innovation challenges (see GENYOUth’s **AdCap Challenge** as an example).

ENDNOTES

1. Center for Ecoliteracy. Rethinking school lunch: a planning framework from the Center for Ecoliteracy. 2nd ed. 2010. Retrieved from https://www.ecoliteracy.org/sites/default/files/uploads/rethinking_school_lunch_guide.pdf.
2. US Department of Agriculture. Ag and food sectors and the economy. May 4, 2020. Retrieved from <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/ag-and-food-sectors-and-the-economy.aspx>.
3. International Food Information Council Foundation. Survey of consumers’ attitudes and perceptions of environmentally sustainable and healthy diets. July 2019. Retrieved from <https://foodinsight.org/wp-content/uploads/2019/09/EnvSus-Healthy-Research.pdf>.
4. Oostindjer M, Aschemann-Witzel J, Wang Q, et al. Are school meals a viable and sustainable tool to improve the healthiness and sustainability of children’s diet and food consumption? a cross-national comparative perspective. *Critical Reviews in Food Science and Nutrition*. 2017;57(18):3942-3958. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/10408398.2016.1197180>.
5. Arnold A. School lunch is becoming more sustainable. *FoodPrint*. October 15, 2019. Retrieved from <https://foodprint.org/blog/sustainable-school/>.
6. Morgan K. The politics of the public plate: school food and sustainability. *International Journal of Sociology of Agriculture and Food*. 2014;21(3):253-260. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.66.3.3502&rep=rep1&type=pdf>.
7. LappÄ A. School lunches across the U.S. may be moving towards healthy organic food. *AlterNet*. January 14, 2017. Retrieved from <https://www.alternet.org/2017/01/school-lunches-across-us-may-be-moving-toward-healthy-organic-food/>.
8. World Wildlife Fund. Food waste warriors: a deep dive into food waste in US schools. 2019. Retrieved from <https://www.worldwildlife.org/stories/food-waste-warriors>.
9. Blondin SA, Djang HC, Metayer N, et al. “It’s just so much waste”: a qualitative investigation of food waste in a universal free School Breakfast Program. *Public Health Nutrition*. 2015;18(9):1565-1577. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/25543694/>.
10. Bloom J. Waste not, want not. *Grist*. November 28, 2018. Retrieved from <https://grist.org/article/schools-waste-5-million-a-day-in-uneaten-food-heres-how-oakland-is-reinventing-the-cafeteria/>.
11. US Department of Agriculture. The use of share tables in child nutrition programs. June 22, 2016. Retrieved from https://fns-prod.azureedge.net/sites/default/files/cn/SP41_CACFP13_SFSP15_2016os.pdf.
12. US Department of Agriculture. Plate waste. January 2016. Retrieved from <https://fns-prod.azureedge.net/sites/default/files/ops/HHFKA-PlateWaste.pdf>.
13. Cohen JFW, Jahn JL, Richardson S, et al. Amount of time to eat lunch is associated with children’s selection and consumption of school meal entrée, fruits, vegetables, and milk. *Journal of the Academy of Nutrition and Dietetics*. 2016;116(1):123-128. Retrieved from [https://jandonline.org/article/S2212-2672\(15\)01248-4/fulltext](https://jandonline.org/article/S2212-2672(15)01248-4/fulltext).

14. Price J, Just DR. Lunch, recess and nutrition: responding to time incentives in the cafeteria. *Preventive Medicine*. 2015;71:27-30. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0091743514004599?via%3Dihub>.
15. FoodCorps. Reimagining school cafeterias: a human-centered study on the current state and future of school food. 2019. Retrieved from <https://foodcorps.org/cms/assets/uploads/2019/09/Reimagining-School-Cafeterias-Report.pdf>.
16. Clark H, Coll-Seck AM, Banerjee A, et al. A future for the world's children? a WHO-UNICEF-Lancet Commission. *The Lancet Commissions*. 2020;395:605-658. Retrieved from [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(19\)32540-1.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(19)32540-1.pdf).



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GENYOUTH[®] CREATING HEALTHIER SCHOOL COMMUNITIES[™]

GENYOUth empowers students to create a healthier future for themselves and their peers by convening a network of private and public partners to raise funds for youth wellness initiatives that bolster healthy, high-achieving students, schools and communities. We believe that all students are change-agents who deserve the opportunity to identify and lead innovative solutions that positively impact nutrition, physical activity and success. www.genyouthnow.org



AASA, the School Superintendents Association, is the professional organization for more than 13,000 educational leaders in the United States and throughout the world. AASA members range from chief executive officers, superintendents and senior-level school administrators to cabinet members, professors and aspiring school system leaders. AASA members advance the goals of public education and champion children's causes in their districts and nationwide. As school system leaders, AASA members set the pace for academic achievement. They help shape policy, oversee its implementation and represent school districts to the public at large. www.aasa.org



National Dairy Council (NDC) is the nonprofit organization dedicated to bringing to life the dairy community's shared vision of a healthy, happy, sustainable world —with science as the foundation. NDC provides science-based nutrition information to, and in collaboration with, a variety of stakeholders committed to fostering a healthier nation, including health and wellness professionals, educators, school nutrition directors, academia, industry, consumers and media. NDC has taken a leadership role in promoting child health and wellness through programs such as Fuel Up to Play 60. Developed by NDC and the National Football League (NFL), Fuel Up to Play 60 encourages youth to consume nutrient-rich foods and achieve at least 60 minutes of physical activity every day. www.USDairy.com



The Urban School Food Alliance consists of 12 of the nation's largest school districts, which represent 3,600,000 students, serving 635 million meals annually. School districts include: New York City Public Schools; Dallas Independent School District; Baltimore City Public Schools; Chicago Public Schools; Orange County Public Schools (Fla.); Boston Public Schools; Los Angeles Unified School District; Broward County Schools (Fla.); Palm Beach County (Fla.); Miami-Dade County Public Schools (Fla.); The School District of Philadelphia; and DeKalb County School District (Ga.). These districts work together to leverage their collective voice to transform school meals and make sure all students have access to high-quality, healthy meals. www.urbanschoolfoodalliance.org

For a copy of the complete report, *Healthier School Communities: What's at Stake Now and What We Can Do About It*, visit www.genyouthnow.org.