

FARM TO SCHOOL LITERATURE REVIEW (SUMMARY)

Background

In 2010, an amendment to the Richard B. Russell National School Lunch Act authorized and funded the United States Department of Agriculture (USDA) to establish the Farm to School Program. This program provides grants and technical assistance to eligible schools for implementation of activities that improve children's access to local foods and offer food and agriculture education (e.g., local food procurement efforts by school meal programs, school gardening, farm visits, and integration of food and agriculture related education into the classroom curriculum).

The USDA Food and Nutrition Service (FNS) collects information on U.S. farm to school activities through its Farm to School Census. The *Farm to School Census and Comprehensive Review* includes the 2019 Farm to School Census as well as additional research activities to examine nationwide farm to school efforts. These include: (1) a review of published research on farm to school since 2010; (2) a review of the USDA Farm to School Grant Program; and (3) interviews with food distributors. This brief summarizes findings from the literature review. Findings from the 2019 Farm to School Census and the review of the Farm to School Grant Program will be released in two future reports.

The literature review identified and examined current research about farm to school activities and analyzed gaps in available knowledge and data. It synthesized findings on: (1) farm to school policy and funding at the State and local level; (2) farm to school activities, their impact on students, and characteristics of participating SFAs; (3) local food procurement practices and challenges; and (4) the impact of farm to school spending on the local economy.

Methods

The literature review included U.S.-focused, peer-reviewed literature published from January 2010 through December 2019, as well as book chapters, pamphlets, magazine articles, and reports from non-profit organizations and governmental departments.

An initial literature search yielded 1,515 publications; further screening led to the inclusion of 165 publications in the review. The study team reviewed and summarized the content of these publications, including the research methods and methodological limitations.

Findings

Definitions of “local” varied, but most often “local” food referred to food grown within the State. There is no widely accepted definition of local food. The definition varied throughout the literature and shifted based on stakeholder perspectives. Most commonly “local” referenced food grown or produced within the State where the farm to school activities took place.

Studies found increasing nationwide participation in farm to school, encompassing many types of activities. The review found that participation in farm to school has grown at national, State, and local levels. One common finding was the increase in the prevalence of school gardens and their integration into cooking activities and classroom curricula. The review also highlighted school and SFA participation in a variety of farm to school activities to promote local foods, such as taste testing with students, farm tours, cooking classes, and creation of marketing material highlighting local foods and farmers (e.g., newsletters, menus, and cafeteria signage). The review also found that school meal programs demonstrated increased interest in serving local foods over the period studied.

New policies, legislation, and initiatives at the school district, State and national levels supported farm to school activities. Between 2002 and 2018, almost all States passed farm to school legislation related to local procurement, food and agriculture education, or school gardens, with 146 bills enacted and 63 resolutions adopted. These ranged from the establishment of farm to school programs to the authorization of funding for local food procurement. Almost all States passed legislation related to local procurement, food and agriculture education, or school gardens but the

policies that require State agencies to establish or support farm to school activities rarely address school gardens specifically. Little research examined how State and local actors create institutions to support and promote farm to school activities.

In-kind support and funding for farm to school activities came from a variety of sources.

Resources for farm to school efforts came from local, State and national government grants; general school funds; foodservice budgets; corporate and foundation grants; parents; and non-profit and community organizations.

Studies found some associations between farm to school programs and students' knowledge.

The literature suggested that students liked having access to local foods and that farm to school activities may increase students' nutritional knowledge and willingness to try fruits and vegetables.

Studies found inconsistent associations between farm to school programs and students' fruit and vegetable consumption or academic achievement.

Among studies that looked at farm to school programs and students' fruit and vegetable consumption or academic achievement, some found positive associations while others found no associations.

Despite barriers, school meal programs increased spending on local foods and used a range of strategies to purchase local products.

Studies showed a positive trend in school spending on local foods over the period reviewed. Some school meal programs sourced directly from farmers or producers, while others asked their distributors to prioritize local foods or sought bids from new distributors that could provide local products.

School procurement of local foods added investment in local economies and supported food and agriculture producers.

Purchases of local foods by schools contributed to the local economy in terms of jobs created, sales, labor income, and value added. There was anecdotal evidence that farmers appreciated making

connections in the community and that some made changes such as producing specific crops for schools to accommodate school client connections included diversified markets, increased off-season sales, and a market for surplus foods.

Numerous studies referred to the challenges schools face in procuring local foods, including availability, budget constraints and costs, procurement regulations, logistical issues, and food safety concerns. Some schools also found local foods were more expensive, less readily available, and took more time and space to prepare. Practices identified in the research that might help ease the management of the procurement process included flexibility in delivery and quality requirements, providing professional development for staff and building relationships with producers.

More research on farm to school program implementation and impacts is necessary.

Few of the reviewed studies used a research design or methods that measured the impact of the intervention; among these, there was variation in the level of methodological rigor. Other limitations in the available research included lack of longitudinal design, narrow geographic and market scope, and reliance on self-reports of dietary behaviors.

More rigorous evaluation of farm to school initiatives is especially needed in the following areas: (1) impacts on student attitudes about local foods and fruit and vegetable consumption, including long-term benefits; (2) incorporation of local foods into school meals and effects on plate waste; (3) best practices in local procurement processes; and (4) effects of local food purchases on the economy and agricultural sector.

For More Information

Bobronnikov, E. et al. (2021). Farm to School Literature Review. Prepared by Abt Associates, Contract No. AG-3198-B-16-0015. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: Ashley Chaifetz. Available online at: www.fns.usda.gov/research-and-analysis.