

April 2022

# Supporting Procurement of Local Foods Through VA Farm to School

By Kate Covington



Applied Policy Project prepared for the Virginia Department of Education Office of School Nutrition Programs



FRANK BATTEN SCHOOL  
*of LEADERSHIP and PUBLIC POLICY*



SCHOOL  
NUTRITION  
PROGRAMS

VIRGINIA DEPARTMENT OF EDUCATION



## ACKNOWLEDGEMENTS

I would like to thank the Virginia Department of Education Office of School Nutrition Programs for their support of this project. Specifically, I would like to thank Bee Thorpe, Lisa Bonine, and Sandra Curwood. I am grateful for their commitment to ensuring Virginia students have access to the quality nutrition they need to excel in the classroom, as well as their willingness to partner with me this year in furthering that effort. I would also like to thank Professor Lucy Bassett and Professor Craig Volden for their guidance and direction throughout the year. Finally, I would like to thank my classmates, especially Ethan Novak, Anya Pfeiffer, Savannah Rogers, Owen Hart, and Farah Schneider, for their constructive feedback and encouragement.

## DISCLAIMER

The author conducted this study as part of the program of professional education at the Frank Batten School of Leadership and Public Policy, University of Virginia. This paper is submitted in partial fulfillment of the course requirements for the Master of Public Policy degree. The judgments and conclusions are solely those of the author, and are not necessarily endorsed by the Batten School, by the University of Virginia, or by any other agency.

## HONOR PLEDGE

On my honor as a student, I have neither given nor received unauthorized aid for this assignment.

A handwritten signature in black ink, appearing to read "K. L. Grotter".

## **TABLE OF CONTENTS**

Acknowledgments.....	01
Disclaimer.....	01
Honor Statement.....	01
Executive Summary.....	03
Introduction.....	04
Client Profile.....	05
Background.....	06
Review of the Evidence for Boosting Local Procurement.....	12
Evaluative Criteria.....	17
Cost Effectiveness.....	17
Equity.....	17
Political Feasibility.....	17
Administrative Feasibility.....	17
Alternatives.....	18
Secure a Permanently Funded Farm to School Coordinator.....	18
Strengthen Food Hub Capacity and Network.....	20
Pilot Incentive Program.....	23
Recommendation.....	25
Outcomes Matrix.....	25
Implementation.....	27
Conclusion.....	33
Appendices.....	34
Appendix A: Cost Effectiveness Calculations.....	34
Appendix B: VA Farm to School Leadership Team Roster.....	40
References.....	41

---

## EXECUTIVE SUMMARY

Across the country, the average school participating in Farm-to-School (F2S) spends about 20% of their annual total food expenditures on local foods (Bobronnikov et al., 2021). **However, Virginia schools spent just 9% of total food costs on local foods, with the majority of Virginia schools spending less than 5% of their total food costs on local foods in 2018** (USDA-FNS Office of Policy Support, 2021) (Grigsby et al., 2018). Despite significant interest from both schools and farmers in increasing engagement with Farm-to-School, 81% of Farm-to-School School Food Authorities (SFAs) reported at least one challenge procuring local foods (Bobronnikov et al., 2021).

The 2021 VA Farm to School Strategic Plan set a goal to increase annual procurement of VA grown and regional foods for VA child nutrition programs to \$24 million by 2026. To meet this ambitious and worthy goal, the Virginia Department of Education Office of School Nutrition Programs (VDOE-SNP) and other VA F2S partners must address local food procurement challenges. Expanding F2S has the opportunity to provide Virginia students who rely on school meals with nutritious food, as well as support the growth of local food systems and economies. VDOE-SNP sees Farm to School as fundamental to ensuring students have equitable access to the nutrition they need for general health and wellness, as well as to learn effectively.

After providing a comprehensive review of the literature on local procurement through farm to school and evidence from other states, this report analyzes three alternatives for VDOE-SNP to boost local procurement across Virginia schools.

1. Advocate for a permanently funded farm to school coordinator
2. Strengthen food hub capacity and network
3. Pilot incentive program

These alternatives will be evaluated against the criterion of cost effectiveness, equity, political feasibility, and administrative feasibility. My recommendation is to strengthen food hub capacity and networks by expanding on the Centralized Local Procurement Pilot Program pilot currently being developed by VDOE-SNP with two mutually reinforcing strategies of providing both financial and technical support to strengthen food hub capacity, as well as overcoming barriers to communication and facilitating strategic relationship building.

To move forward with implementation, VDOE-SNP should first connect with stakeholders to finalize program design. VDOE-SNP will then need to build monitoring and evaluation infrastructure, collect baseline data, prepare technical assistance programming, and submit a grant application as initial steps for advancing this recommendation. Potential challenges to implementation include failure to achieve grant funding and uncertainty surrounding the private operations of Virginia food hubs. VDOE-SNP should target resources to overcome the common barriers to effective partnerships between food hubs and schools, which include communication, delivery routes, product availability, scheduling, and processing.

## INTRODUCTION

### Defining the Problem

Farm to School (F2S) is a U.S. Department of Agriculture Food and Nutrition Service (USDA-FNS) program that helps connect local farmers to school cafeterias. F2S seeks to provide students with nutritious meals, empower students with agriculture and nutrition education, and strengthen local economies. There is large variation in how the program is implemented in each state. Each state and locality has the authority to decide the degree to which they want to participate. Across the country, the average school participating in Farm-to-School spends about 20% of their annual total food expenditures on local foods (Bobronnikov et al., 2021). However, Virginia schools spent just 9% of total food costs on local foods, with the majority of Virginia schools spending less than 5% of their total food costs on local foods in 2018 (USDA-FNS Office of Policy Support, 2021) (Grigsby et al., 2018). This difference is highlighted in Figure 1. Despite significant interest from both schools and farmers in increasing engagement with Farm-to-School, 81% of Farm-to-School School Food Authorities (SFAs) reported at least one challenge procuring local foods (Bobronnikov et al., 2021).

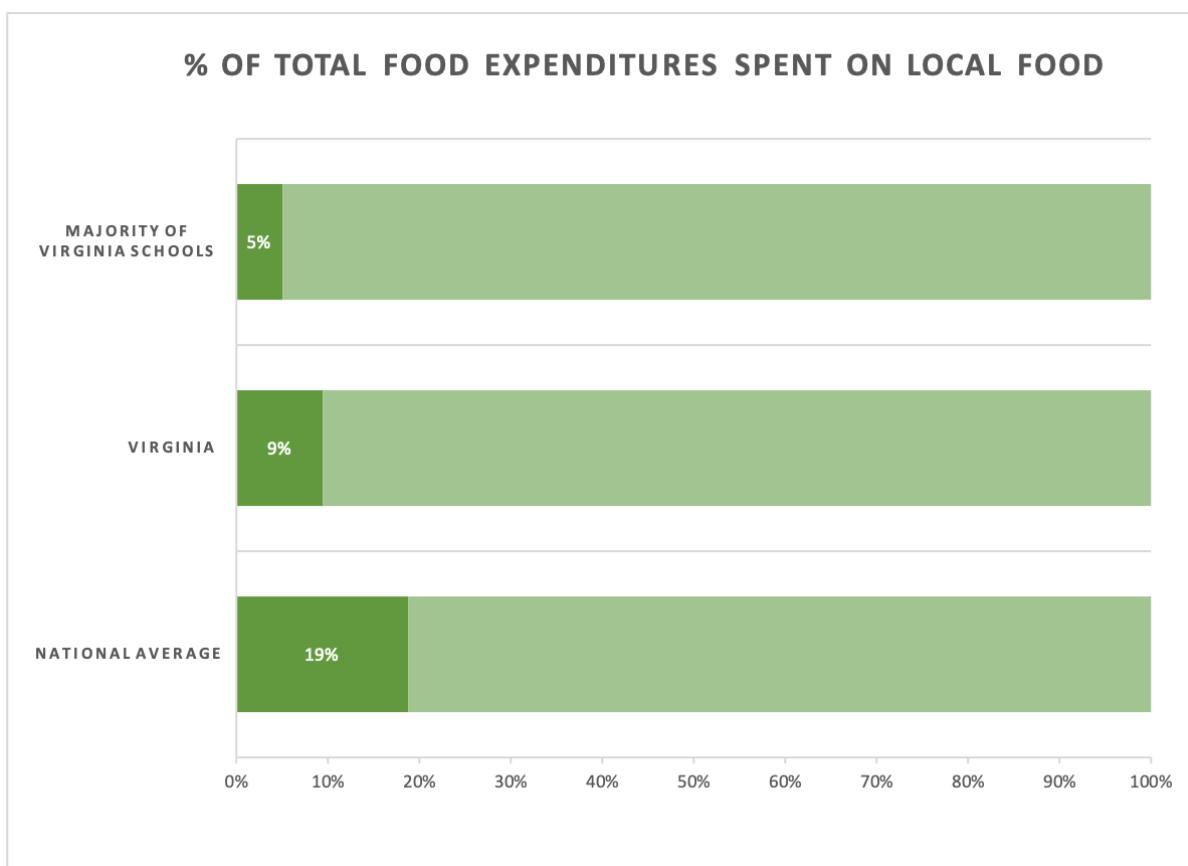


Figure 1 (USDA Office of Policy Support, 2021) (Grigsby et al., 2018)

## CLIENT OVERVIEW

This report has been prepared for the Virginia Department of Education Office of School Nutrition Programs (VDOE-SNP). The mission of VDOE-SNP is to ensure all Virginia children have equitable access to good, healthy food alongside the broader mission of VDOE to advance equitable and innovative learning (Virginia Farm to School Leadership Team & Virginia Farm to School Network, 2021). VDOE-SNP administers school nutrition programs across Virginia, including Farm to School. They partner with the Virginia Department of Agriculture and Consumer Services (VDACS), and the Virginia Cooperative Extension (VCE) to implement F2S and achieve program goals. The VCE helps collect and report local food procurement data, as well as provide technical assistance. Local school officials and several other state entities, nonprofits, and organizations are also crucial in supporting the success and growth of Farm to School in Virginia. The Virginia Farm to School Leadership Team includes representatives from each of these core partners and works to support local food procurement, food and agriculture education, and school gardens across the state. The leadership team also includes the seven regional leads, with each lead publishing their regional goals in the 2021 strategic plan.

VDOE-SNP sees Farm to School as fundamental to ensuring students have equitable access to the nutrition they need for general health and wellness, as well as to learn effectively. While about 83% of schools in Virginia participate to some degree in Farm to School, VDOE-SNP is interested in growing the program. Specifically, they seek to increase procurement of local foods that currently only make up about 5% of the total food expenditures for the majority of schools (USDA-FNS, 2019b).

As displayed in Figure 2 below, the 2021 VA F2S Strategic Plan sets a goal to increase annual procurement of VA grown and regional foods for VA child nutrition programs to \$24 million by 2026 (Virginia Farm to School Leadership Team & Virginia Farm to School Network, 2021). That would bring Virginia up to about 11% of total spending on local foods. The 2018-2019 school year saw about \$18 million in local food purchases (Curwood, 2021). To meet this ambitious and worthy goal, VA F2S must address local food procurement challenges. Expanding F2S has the opportunity to provide Virginia students who rely on school meals with healthy, nutritious food, as well as support the growth of local food systems and economies.

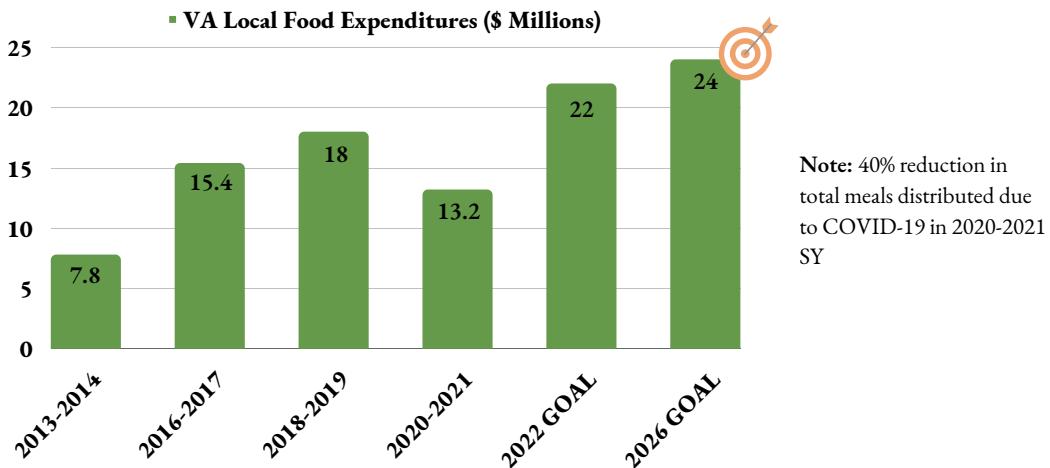


Figure 2 (Curwood, 2021) (Virginia Farm to School Leadership Team, & Virginia Farm to School Network, 2021) (Grigsby et al., 2018)

## BACKGROUND

The USDA F2S Grant Program was launched in 2012, authorized by the 2010 Healthy Hunger Free Kids Act. F2S's three core elements include procurement of local foods, education, and school gardens. F2S provides kids with nutritious, locally-sourced school meals, teaches kids about nutrition and agriculture, and offers significant market opportunities for local farmers that support strong communities and local economic growth (National Farm to School Network, n.d.). A School Food Authority (SFA) is the unit responsible for administering school feeding programs across a certain group of schools and may or may not correspond to a school district. An SFA can engage with any or all of the three F2S components.

Locally sourced food procured through F2S is served to VA students through a variety of school meal programs, including the National School Lunch Program (NSLP), the School Breakfast Program (SBP), the Fresh Fruit and Vegetable Program (FFVP), the Child and Adult Care Food Program (CACFP), and the Summer Food Service Program (SFSP) (USDA-FNS, 2019b). VDOE estimates that more than 122.5 million lunches, 35 million breakfasts, and 1.3 million snacks are served through these programs each year in Virginia schools. Virginia participates in F2S Week in October to coincide with National F2S Month. F2S Week and Month are dedicated towards raising awareness about F2S activities and encourage increased involvement in the program (VDOE, n.d.-a). The top five local products purchased by Virginia schools include apples, pears, peppers, tomatoes, and milk (Curwood, 2021).

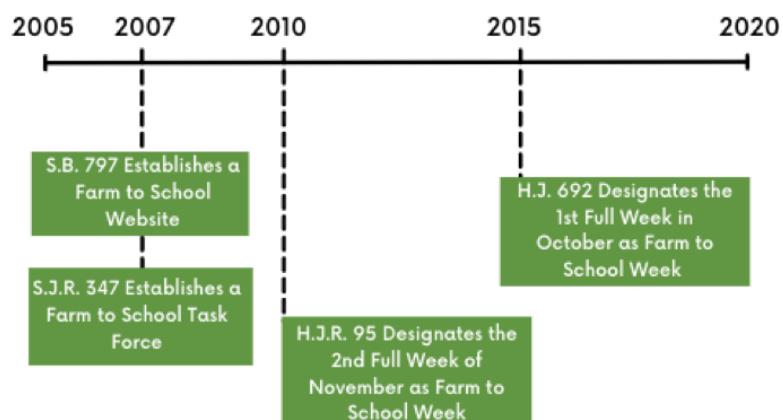
### History of Farm to School in Virginia

F2S has seen significant growth across the country in recent years. About 65% of SFAs participated during the 2018-2019 SY, 57% of which just began participating within the previous three years (Bobronnikov et al., 2021). In Virginia, about 83% of SFAs engage in F2S activities, reaching about 1,796 schools. 43% of participating VA SFAs have participated for less than three years (USDA-FNS, 2019b). This suggests that over half of all schools currently participating in Farm to School are fairly new to the program.

Virginia was an early leader in Farm to School, establishing a Farm to School task force in 2007 and holding its first Farm to School Week in 2009 before the official USDA grant program was authorized. Compared to other states today, however, Virginia has lagged

behind in policy efforts to grow and sustain F2S. The National Farm to School Network (NFSN), USDA, and Vermont Law School's Center for Agriculture and Food Systems' (CAFS) State Farm to School

**Timeline of VA Farm to School Adopted Legislation**



Policy Handbook 2002-2020 ranks states according to successful state farm to school legislation. States receive a score between 0 and 6. A score of zero means no F2S legislation is enacted in the state. A score of one means the state has passed legislation to “seed” F2S, which includes proclamations, resolutions, databases, task forces, or councils. A score of two and three mean the state is “growing” F2S, passing legislation for pilot programs, local preference, or unfunded programs. A score of four, five, or six means the state is sustaining F2S. They have either successfully passed legislation to fund F2S programs, implement incentive or reimbursement programs, or to fund a coordinator position. Virginia received a score of 1. For comparison, 14 states received a score of 6. Notably, neighboring states Maryland and North Carolina, received a score of 6. Fourteen additional states, the U.S. Virgin Islands, and the District of Columbia received a score of 4 or 5. Virginia’s score comes from 3 bills passed to initiate, or “seed,” F2S activities, but zero policies classified in the “growing” or “sustaining” categories (National Farm to School Network, 2021).

### Ranking of States According to Successful Farm to School Legislation

Sustaining F2S	6	Alabama, California, Hawaii, Michigan, Missouri, North Carolina, Oklahoma, Vermont, Wisconsin, New York, Florida, Louisiana, Maryland, Arkansas
	5	Alaska, District of Columbia, Minnesota, New Mexico, Oregon
Growing F2S	4	Colorado, Illinois, Iowa, Massachusetts, US Virgin Islands, Pennsylvania, Texas, Nevada, Washington
	3	South Carolina, New Jersey, Connecticut
Seeding F2S	2	Georgia, Kentucky, Tennessee, Maine, Rhode Island, Montana, Wyoming
	1	Virginia, West Virginia, Delaware, Mississippi, Nebraska, New Hampshire
No F2S Legislation	0	Arizona, Ohio, American Samoa, Guam, Utah, Northern Mariana, Puerto Rico, Idaho, Indiana, Kansas, North Dakota, South Dakota

*Figure 4* (National Farm to School Network. (2021). State Farm to School Policy Handbook 2002-2020. USDA ARS.)

## **Procurement Challenges**

Virginia is not alone in facing local food procurement challenges. SFAs nationwide reported that availability of local foods (60%), procurement & delivery processes (51%), and cost (37%) as challenges to procuring local foods (Bobronnikov et al., 2021). An additional contributing factor to low procurement includes inadequate kitchen infrastructure for storing and preparing locally sourced food. Despite 50% of VA farmers expressing interest in marketing to VA schools, only 12% of VA farmers and producers had done so as of 2017. School nutrition personnel reported limited availability due to seasonality of foods, quantity of local food available for purchase, and complicated ordering procedures as the top three perceived challenges to engaging in F2S. Nutrition directors reported lack of time to identify local farms to partner with, cost of local foods, and complicated delivery procedures as top barriers. Farmers reported school food budget constraints, lack of information on school market requirements, seasonal constraints, and infrastructure constraints as top barriers. School nutrition directors also said having one website or middle-man organization for ordering local foods from multiple farmers would be helpful to increasing participation.

Food safety requirements are another challenge. Good Agricultural Practices (GAP) is a voluntary USDA audit program that certifies compliance with food safety requirements. Only 7% of farmers surveyed by VDOE-SNP were GAP certified in 2018. School nutrition personnel ranked difficulty in confirming GAP certification of local food vendors 5th among barriers (Grigsby et al., 2018).

## **How Does Local Food Procurement Work?**

### *The Small Purchase Threshold and Informal vs. Formal Procurement Methods*

School nutrition programs are either self-managed or contract-managed. 91% of Virginia nutrition directors reported self-management programming and procurement in 2018 (Grigsby et al., 2018). An SFA either follows an informal or formal procurement method (invitations for bid and requests for proposals) (Bobronnikov et al., 2021). Informal methods, which involve collecting price quotes and accepting the lowest bid, are used when purchases fall below the federal, state, or local small purchase threshold. In 2017, the Trump Administration increased the federal threshold for micro purchases from \$3,500 to \$10,000. The Trump Administration also increased federal simplified acquisitions threshold from \$150,000 to \$250,000 (USDA-FNS, n.d.-e). In Virginia, the small purchase threshold is set at \$200,000, which is more restrictive than the federal threshold (Washington, 2021). However, 39 out of 65 school nutrition directors reported that their locality's small purchase threshold was under \$10,000 in 2018 (Grigsby et al., 2018). With less administrative burden present in informal procurement methods, raising the small purchase threshold has been suggested as an approach to increasing access to farm to school.

## *Geographic Preference*

The 2008 Farm Bill directed the Secretary of Agriculture to encourage child nutrition program operators to use “geographic preference” in procuring local foods. Geographic preference essentially equates geographic proximity with a decrease in price to help give local foods an advantage in the procurement process. One way that geographic preference is applied is when schools issue an invitation for bid (IFB). School districts

---

award points to vendors selling local foods. Those points result in an equivalent price reduction as they evaluate the lowest bidder.

Another way it is applied is when school districts issue a request for proposals (RFP) that indicates a preference for local foods. Vendors who can supply at least 60% of the requested items from within the state receive a 10% price reduction. A last example is when schools use sliding scales that consider local sourcing, price, and other criteria in their evaluation. Geographic preference can only apply to unprocessed or minimally processed items (USDA-FNS, 2017).

A 2013 report on geographic preference by School Food FOCUS provides state agencies with tools to implement geographic preference policies in procurement (Han, 2013). Geographic preference policies can help increase the competitiveness of local vendors in the school food market, as schools face pressures to enter into contracts with Food Service Management Companies (FSMCs) that usually offer the lowest bid. Raising small-purchase thresholds have also been suggested as a way for local vendors to compete with FSMC prices in helping reduce transaction costs (Tonti, 2017). As of 2018, only 25 out of 105 school nutrition directors in Virginia reported that they used geographic preference in their bid language (Grigsby et al., 2018).

#### *Additional Nuts and Bolts*

Invoicing, menu planning, insurance coverage, and food safety certifications are other important aspects of implementing F2S. Food distributors, FSMCs, and state cooperative extensions are important actors in these processes. FSMCs enter into contracts with schools and invoice them for foods they purchase and serve. Aramark is one of the major FSMCs nationwide. School nutrition personnel are in charge of menu planning according to USDA's Dietary Guidelines.

Schools typically require their vendors to meet a certain level of product-liability insurance coverage. In order to market to schools, farmers may be faced with adjusting their insurance coverage and weighing whether the benefits of the market is worth the cost of increasing coverage. Local extension agents work with farmers to help them understand these requirements, as well as the food safety, quantity, and delivery requirements. There have been reported misconceptions about whether Good Agricultural Practices (GAP), a common food safety certification, is required to market to school. It is actually completely voluntary and not required to market to K-12 schools (Grigsby et al., 2018).

Virginia Market Maker is a free online database managed by the VCE and VDACS that helps connect school nutrition personnel and local farmers. The database is also available to other buyers interested in local foods besides schools. Market Maker databases are present in other states as well (MarketMakerWebsite, n.d.). Expanding use of Virginia Market Maker through the provision of technical assistance and training was a part of VDOE's recommendations in their 2018 Evaluation report.

---

## ***Future Outlook and Opportunities for Farm to School***

The timeline of Child Nutrition Reauthorization (CNR) is highly relevant to the future of F2S procurement challenges. The Farm to School Act of 2019 and the Kids Eat Local Act, both of which would support the growth of local food procurement in schools, were introduced as part of CNR. CNR is currently five years behind schedule and there has been no concrete sign suggesting the legislation will be taken up by Congress in the immediate future (NSFN Staff, 2021).

Other states have implemented creative incentive programs to boost procurement of local foods. Oregon has been a leader, with participating schools spending about 23% of their total food budget on local foods during the 2018-2019 SY. This was up 4 percentage points from the previous school year. New York set a target of 30% of purchases to be on local foods. NY schools can get reimbursed 25 cents per meal if they reach the 30% threshold. Vermont also has ambitious F2S goals to achieve 75% of schools purchasing at least 50% local by 2025 (Held, 2020). California is pioneering the procurement of locally sourced whole grains, a food group that has not typically been prioritized as part of F2S (Wallace, 2021). Efforts by these states to boost local food procurement and their potential applicability to Virginia will be discussed further in the next section.

### ***Costs and Consequences***

The National School Lunch Program served 703,406 Virginia children in 2019. In the 2016-2017 SY, about 41% of Virginia students were eligible for free/reduced-price lunch. For these students, meals provided at school might be their only reliable source of quality food all day. It is crucial to recognize the importance of school meals as we are also seeing unprecedented rates of childhood obesity across the country, Virginia included. Virginia children ages 10 to 17 saw a 13% obesity rate. This is even higher for low-income children. Children ages 2-4 in Virginia who participate in the Special Supplemental Nutrition Program for Women, Infants and Children saw a 15% obesity rate (State of Childhood Obesity, n.d.).

## **Why Grow Farm to School?**

**Virginia Schools serve 112.5 million lunches, 35 million breakfasts, and 1.3 million snacks each school year**

- 1 Boosts Student Health, Nutrition, and Food Literacy**
- 2 Builds Resilient, Sustainable Local Food Systems**
- 3 Promotes Strong Local Communities and Economies**

Increases fruit and vegetable consumption by about 1 serving per day



Generates between \$.60 and \$2.16 in economic activity for every \$1 spent on local foods





Research has shown that F2S initiatives directly increase the amount of fresh fruits and vegetables in school cafeterias, and that increased access is associated with increased consumption by students. A National Farm

---

to School Network study found F2S results in the consumption of 1 more serving of fruits and vegetables per day per student (National Farm to School Network, 2020). The Dietary Guidelines suggest children should consume 3 servings of vegetables and 2 servings of fruit daily. As such, the additional serving of fruits and vegetables consumed through F2S significantly advances this goal.

The costs of poor child nutrition and childhood obesity are high. Duke Health estimates that lifetime medical costs of childhood obesity come out to \$19,000 per child (Duke Global Health Institute, 2014). Another way to estimate the costs of poor child nutrition is found in the Rockefeller Foundation report on the true cost of food. While American consumers spent \$1.1 trillion on food in 2019, it is estimated that the true cost of the U.S. food system was about \$3.2 trillion when considering externalities associated with unsustainable food production and poor diets (The Rockefeller Foundation, 2021).

Others say more research is needed to evaluate the outcomes of F2S on improving child nutrition. A report by the Economic Research Service claims that “whether or not local food systems tend to improve health and nutrition in this way is largely an unresolved empirical question.” The report also cites other studies that find F2S initiatives that increase availability, reduce prices, and provide point of purchase information do increase fruit and vegetable consumption in schools. However, they acknowledge other phenomena may be contributing to these beneficial outcomes, including more innovative nutrition curriculum or school menu changes (Martinez et al., 2010).

Poor local food procurement through F2S can also rob local food systems of huge market opportunities and the potential for both economic growth and improved sustainability. F2S’s role in supporting the growth of strong local food systems is especially timely in the aftermath of the major supply disruptions experienced during the pandemic. As the US agriculture industry has become increasingly consolidated and industrialized, F2S helps build resiliency in our food system by providing huge market opportunities for smaller farms. Research shows that for every \$1 spent through F2S, \$.60-\$2.16 returns to the local economy (National Farm to School Network, 2020).

A report from Virginia Farm to Table looked at the direct economic impact generated annually for Virginia and four Cooperative Extension Districts if each household in Virginia spent \$10 per week of their total food budget on locally-grown Virginia food and farm products. The entire state of Virginia would see an increase of \$1.65 billion annually if that were to happen (Bendfeldt et al., 2011). To put that in perspective, the agriculture industry in Virginia has an annual economic impact of \$70 billion. Just spending \$10 a week on local food would boost that impact by over 2%. Translating this multiplier effect into the school food market would be a powerful economic stimulant for Virginia.

The impact of farmers markets is another relevant example for us to extrapolate the potential impact of farm to school on local food systems and economies. An Economic Research Service report found a multiplier effect of farmers markets on jobs in Iowa to be 1.45. This means that for each full-time equivalent job created at farmer’s markets supported almost half of a full-time equivalent job in other sectors of the Iowa economy (USDA-ERS, 2010).

---

## EVIDENCE REVIEW

Research has highlighted several areas in which local food procurement through Farm to School can be improved or supported. The first area is changing procurement policies, which include changing the grant program from a competitive process to an opt-in process, using reimbursements to incentivize purchasing of local foods, expanding the use of geographic preference, and increasing the small purchase threshold. The second category is leadership, with many states creating a permanent farm to school coordinator position or setting state procurement goals in legislation. A final area of response has been through strengthening partnerships between schools and farmers through technical assistance programs, training, and engagement with local food hubs. Oregon, Michigan, New York, Vermont, Colorado, and New Mexico, among a few others, have emerged as leaders in boosting local food procurement through Farm to School.

### I.Opt-in Grant Programs

Farm to School Grant Programs are typically competitive, meaning that grants are awarded on the basis of certain eligibility and evaluative criteria through an application and review process. An opt-in grant program is noncompetitive and applicants only need to meet the eligibility requirements. In 2015, Oregon established an opt-in grant program to replace the previous competitive grant program. Awards offered through the opt-in program were based on the number of school lunches served. A report on the successes and lessons learned highlighted that Oregon's opt-in program made access to Farm to School more equitable by increasing the likelihood of low-income districts being able to purchase locally. Oregon saw increased participation among low-income distributors and farmers. Overall, 16 new school districts implemented farm to school activities for the first time, and 23 districts opened new accounts with local vendors. The report noted that logistical, purchasing strategy, and grant administration challenges still persisted. Furthermore, the process of building support for the opt-in grant program took almost 10 years of advocacy. Oregon has a strong network of education and agriculture partners, and stakeholder interviews emphasized the importance of a legislative champion for other states looking to pass similar policies.

The study combined quantitative data from the Oregon Department of Education Farm to School Baseline and Progress Reports and qualitative data from stakeholder interviews. The baseline and progress reports are comprehensive, as all grant recipients were required to submit their data. Potential issues with data collection by grant recipients was not addressed. Researchers interviewed 19 representatives of 5 stakeholder groups involved with implementation of the opt-in grant program. Interviews were weighted more heavily towards producers and distributors, and the group of nonprofits, policy advocates, and state agency partners. The researchers used grounded theory to analyze the interviews, a systematic approach of tagging repeated words or ideas that match research questions (Giombi et al., 2018). It is unclear what standard the researchers used in claiming the increase in participation among school districts was significant. There are a total of 197 school districts in Oregon. Substantively, a positive impact on 43 school districts provided benefits to thousands of individual students.

## II. Reimbursement and Incentive Programs

A Farm to School incentive or reimbursement program offers money back to SFAs for procuring local foods to help overcome budget constraints. Nine states and the District of Columbia have implemented an incentive or reimbursement program. Reimbursement programs across states have taken several different forms. Michigan has a matching reimbursement up to a certain amount. D.C. provides an additional reimbursement during each claim period. As previously discussed, Oregon issues noncompetitive reimbursement grants. New York offers an increased reimbursement when schools reach a threshold percent of purchases. Finally, New Mexico offers a lump-sum reimbursement that schools may apply to receive (National Farm to School Network, 2021).

### *Michigan “10 Cents a Meal” Program*

Michigan’s “10 Cents a Meal” program offers up to 10 cents per meal in match funding for purchasing local foods.

According to the pilot program’s 2018-2019 evaluation report, school food service directors (FSDs) most frequently selected “The variety of produce served in school meals has increased” as an outcome of participating in the program for the third year in a row. FSDs also agreed most strongly with the impact statements that they offered both more local fruits and local vegetables in their school meals due to 10-cents (Matts, 2020). However, the survey questions did not ask for specifically how much local food procurement increased. Rather, respondents were asked to what extent did they agree or disagree with the statement. On net, the 57 pilot grantees purchased 93 different fruits, vegetables and beans, sourced from 143 farms across 38 different counties in Michigan. 20 additional processors, distributors, or food hubs, were also involved through the pilot.



The monthly evaluation surveys distributed by the Michigan State University Center for Regional Food Systems (CRFS) had a very high response rate. Researchers acknowledge responses to food service budget questions asked in several monthly surveys were limited and unreliable in some cases, and therefore were unreported. The study also acknowledged that the number of foods FSDs purchased and served for the first time may not be a reliable indicator of the pilot’s success due to varying levels of previous experience.

The National Farm to School Network reports that \$575,000 was appropriated for Michigan’s “10 Cents a Meal” program during the 2018-2019 School Year (SY). This funding level serves over 134,000 students in 57 school districts. The initial success of a smaller grassroots pilot program served as a precursor to the statewide pilot launched in 2016. The program’s budget has increased each year since the initial \$250,000 appropriated in 2016. The impact has increased along with the increased funding. After the 2017-2018 SY, FSDs identified 65 local produce or legumes tried for the first time, up from 30 new foods tried in 2016-2017 SY. The Michigan Department of Education partners with FarmLogix for invoice tracking and data collection and reporting (National Farm to School Network, 2021).

### *D.C.'s Healthy Tots Act*

D.C.'s Healthy Tots Act (HTA) promotes participation in the Child and Adult Care Food Program (CACFP) and reimburses for locally purchased foods in Early Childhood Education (ECE) settings. This is the first and only reimbursement program specifically targeted at ECE, offering 5 cent reimbursements per meal through the "Local5" grant. An evaluation report concluded that the reimbursement level was not sufficient to motivate behavior change, as some ECE centers reported that the reimbursement did not justify doing the extra paperwork. The report recommended that future reimbursement models should reduce paperwork and reporting requirements (Stephens et al., 2021). A report on the impact of different procurement policies in Northern Colorado further supports this conclusion, finding that higher reimbursement rates do lead to substantial increases in local food purchasing and cost savings (Long, 2019). The limitations of the study on D.C.'s HTA include the impact of COVID-19 on the evaluation timeline and methods. COVID-19 caused many ECE centers to temporarily or permanently close, significantly reducing the number of meals delivered. The evaluation also notes that CACFP participation data was incomplete, and that the qualitative data provided through stakeholder interviews was more robust.

### *Other State Examples: Alabama, New York, Vermont, New Mexico*

Other incentive programs implemented in other states are fairly new and have not yet received rigorous evaluation. As of 2020, Alabama provides 25 cents per meal that features locally grown products. Colorado passed a statewide local procurement incentive program in 2019. New York's incentive program, established in 2018, provides 25 cents per lunch for schools spending 20% of their budget on New York products. Vermont passed a Local Foods Purchasing Incentive for schools in the summer of 2021, which provides a tiered incentive for schools based on percent local food purchased. For example, 15 cents would be reimbursed for 15% local food purchased, 20 cents for 20%, and so on (VT Farm to School & Early Childhood Network, 2021). New Mexico has a lump-sum incentive grant program that may be more accessible than a per meal incentive due its greater flexibility and less paperwork (National Farm to School Network, 2021).

## **III. Procurement Policies: Geographic Preference & Small Purchase Threshold**

Several procurement policies have been put forth to help promote local food procurement, including geographic preference and raising the state small purchase threshold to align with the federal small purchase threshold. However, specific data assessing the effectiveness of these approaches is limited.

### *Geographic Preference*

Geographic preference policies give local foods an advantage in the bidding process. Typically, local foods have a higher cost than nonlocal foods, which is a significant barrier to increasing procurement as schools have limited budgets and are even required in many cases to purchase from the lowest cost bidder.

Geographic preference would essentially equate geographic proximity with a decrease in price to help give local foods an advantage in the procurement process. Geographic preference expansion would look like treating local food as if it was discounted and raising the small purchase threshold. School food procurement is typically based on finding the lowest cost product after producers submit an invitation for bid (IFB) (USDA-FNS, 2017).

#### **IV. Leadership: Permanent Funded Farm to School Coordinator Position**

A Farm to School Coordinator serves as the point person for implementation of statewide farm to school policies and initiatives. They can engage in meetings with school districts and other stakeholders, facilitate communication between farmers and schools, provide support to existing initiatives, identify partners and funding sources, and help maintain a state farm to school website. All 14 states that received the highest score of 6 on the National Farm to School Network's ranking of states in their legislative efforts to support farm to school activities had a funded coordinator position. New Mexico has a funded permanent coordinator position that administers the reimbursement program and leads evaluation of program impact. Vermont has a Food Systems Administrator that services to facilitate local food purchasing by a variety of institutions, not just schools (National Farm to School Network, 2021).

The Harvard Law School Health Law and Policy Clinic's report to the Mississippi legislature recommended the establishment of a funded state farm to school coordinator position to support greater procurement. Their report claims the cost of a funded state coordinator position can be offset by the additional funding this coordinator would be able to bring into the state. This funding would come from obtaining more of the grant money available from the federal government. Their report provides examples of several coordinators that successfully secured more grant money for the state than their annual salaries (Harvard Law School Health Law and Policy Clinic, 2011). VDOE-SNP currently works with FeedVA to keep track of farm to school funding opportunities beyond just the USDA Farm to School grant.

#### **V. Food Hubs and Market Intermediaries**

A food hub, as defined by the USDA, is a centrally located facility that facilitates the aggregation, storage, processing, distribution, and/or marketing of locally/regionally grown food products (Barham, 2017). Iowa is one state trying to grow the role of food hubs in their Farm to School programs. An evaluation report on the Northeast Iowa Food and Fitness Initiative's (FFI) Iowa Food Hub found that four pilot schools increased local food purchases from \$10,451 to \$52,401 in just two years. Non-pilot schools also had the opportunity to purchase from the food hub and also increased their local food purchases. The six-county region containing 14 school districts saw purchases increase from \$6,381 total to \$72,609 total. In looking at the local food purchasing trends in Northeast Iowa from 2008 to 2016, researchers attribute the large spike after 2013 largely to this project and the convenient ordering through the food hub (Wiemerslage & Strohbehn, 2018). Iowa sustained these efforts to support food hubs through the Local Produce and Protein Program grants distributed in August of 2020 to schools in 53 of Iowa's 99 counties. As a result of the grants, 80 schools in 25 counties purchased local food through the Iowa Food Hub Managers Working Group, a collaboration of ten food hubs in Iowa. Previously, school purchases from food hubs fell under \$1,000 but ranged anywhere from \$70 to over \$36,000. After the grant program was implemented, a total of \$224,008 in local foods were sold by food hubs to schools (Koether & Enderton, 2021). This is still a very new program and more evaluation is set to be conducted in the future. It is also worth considering that Iowa has a comparatively large number of food hubs in their state.

---

## **VI. Synthesis of the Evidence**

A review of the evidence has highlighted several different areas of policy action to support greater procurement of local foods through Farm to School. These include changes to the broader policy landscape in which the state Farm to School program operates, program design, implementation, and leadership. A limitation across most of the evidence is a lack of discussion about the statistical and substantive significance of increased procurement or spending on local foods.

In proposing potential alternatives for VDOE-SNP to consider, it is important to understand the logical progression of policy initiatives for expanding farm to school and ensuring that the proposed solutions are within the current scope and reach of Virginia Farm to School. A common theme throughout the evidence was the importance of starting small through pilot programs. Successful pilot programs have laid the foundation for expanded statewide initiatives. Additionally, many states have implemented a variety of approaches together to increase procurement of local foods.

Based on the evidence surrounding best practices and strategies for boosting procurement of local foods and Virginia Farm to School's current stage of development, the next section of this report will present three options for VDOE-SNP to consider. These alternatives offer VDOE-SNP a diverse set of options across the various approaches to supporting local procurement. The following alternatives were also chosen because they are well within the scope of VDOE-SNP to accomplish. For example, shifting to an opt-in grant program and raising the small purchase threshold require action by the state legislature. Sufficient data to conduct cost-effectiveness analysis is also available for these alternatives.

- 1. Engage with partner organizations to advocate for a permanently funded farm to school coordinator position**
- 2. Strengthen the food hub capacity and relationships between food hubs and schools**
- 3. Pilot an incentive program**

---

## EVALUATIVE CRITERIA

The following criteria will be used to evaluate the tradeoffs between the different alternatives. This analysis will inform a final recommendation for VDOE-SNP.

### *Cost Effectiveness*

Cost effectiveness will assess the impact of each dollar of spending on increasing local food expenditures by Virginia schools. This outcome of interest is directly related to SNP's goal of reaching \$24 million in local food expenditures by 2026. Additionally, the literature on F2S looks at the effect of interventions on dollars spent on local foods. The cost of each alternative and the associated impact on local food expenditures will be estimated based on evidence from similar interventions in other states and data from the USDA F2S Census. Cost effectiveness was chosen over cost-benefit analysis because SNP has a clear outcome of interest. Furthermore, the benefits of F2S on child nutrition and local economies have been well documented.

### *Equity*

Equity will evaluate the extent to which the alternative increases local food expenditures across a diverse set of VA schools. This includes SFA size, urbanicity, and socioeconomic status (SES). Size and urbanicity are reported in the USDA F2S Census. USDA measures socioeconomic status in quartiles based on the percentage of students eligible for free or reduced-price meals (USDA-FNS, 2019b). This criterion will be measured as "Low," "Medium," or "High." A highly equitable alternative would boost procurement especially among small and rural SFAs who experience greater difficulty in engaging with F2S.

### *Political Feasibility*

Political feasibility will assess the extent to which the alternative has the support of key stakeholders. This criterion will be measured as "Low," "Medium," or "High." A highly politically feasible solution would have support from the Virginia Governor, the Virginia General Assembly, VCE professionals, school nutrition directors, farmers, and producers. Community support is essential, as effective F2S solutions must consider local circumstances. Qualitative data will be gathered from past stakeholder actions and statements, as well as the relevant political dynamics of F2S efforts in other states.

### *Administrative Feasibility*

Administrative feasibility will assess the ability of SNP to implement the alternative. This criterion will consider the administrative burden and bureaucratic procedures involved for SNP, schools, and farmers. This criterion will be measured as "Low," "Medium," or "High." A highly administratively feasible alternative would see limited extra paper work, coordination, and new technology. Additionally, high feasibility would see high expected take up rates due to ease of participation by targeted groups. This criterion is important given SNP intends to make local procurement more accessible to schools. Administratively prohibitive approaches undermine this effort.

---

## ALTERNATIVES

### **Alternative 1: Secure a Permanently Funded Farm to School Coordinator**

This alternative recommends VDOE-SNP work with partner organizations to advocate for a permanently funded F2S coordinator in the annual state budget. A permanently funded F2S coordinator would support relationship building, ensure long-term sustainability of Virginia F2S, and open the door for greater investment and growth. The current F2S Specialist is funded through the USDA State Administrative Expense Plan (SAE).

***Cost Effectiveness: \$0.83 per \$1 increase in local food expenditures***

*\*See Appendix A for detailed cost effectiveness calculations\**

14 states currently have a permanently funded F2S coordinator included in the annual state budget, with salaries ranging from \$50,000 to \$75,000. If adopted in Virginia, the salary would likely fall between \$70,000-\$75,000. The current VA Farm to School Coordinator, employed by the Virginia Dept. of Education but funded through USDA grant money, earned a salary of about \$71,000 in 2019. It is assumed that advocacy efforts would take 5 years to successfully secure a permanently funded F2S coordinator. The salary cost, therefore, will be born in the future. Anticipation of this cost and time to prepare makes it easier to bear. Costs over the next five years include program monitoring and evaluation, education, promotion, advocacy, and coordination with state partners. States with permanently funded F2S coordinator have robust F2S programs and spend about 16% of their total school food expenditures on local products (USDA-FNS Office of Policy Support, 2021). New York has set a goal of 30% local by 2025, with 72% of survey respondents confident they will meet this goal. Oregon spends about 23% of total expenditures on local foods. It is difficult to isolate the causal effect of a permanently funded F2S coordinator on local procurement given that all of the states with permanently funded F2S coordinators also have other policies and programs in place to support local procurement that are also not present in Virginia. We do have evidence that coordinators in other states have been able to secure additional federal grant money for farm to school from anywhere between 60-300% of their salary (Harvard Law School Health Law and Policy Clinic, 2011). If this grant money is directly translated into increased local procurement, then we could see anywhere from \$40,000-\$210,000 more spent on local foods. Additional grant funding could also be used to implement pilot incentive programs. The opportunity to acquire greater grant funding also depends on whether VA is already accessing the high end of funds available from USDA. Beyond grant funding, coordinators boost local procurement through relationship building, coordinating monitoring and evaluation, and facilitating the sharing of best practices. In the future, a permanently funded coordinator may be more successful at achieving legislative buy-in to allocating funds for incentive programs and other initiatives to expand farm to school in the state budget.

---

### ***Equity: Medium***

This alternative is scored as “Medium” in regards to equity. Any increase in local procurement advances equity in the food system because lower SES students tend to rely more heavily on school meals.

Permanently funded coordinators may also be able to start and sustain relationships with school nutrition directors in districts that have historically under-participated and been less engaged with the program, which are disproportionately rural communities in Southwest Virginia. However, there are no explicit equity implications or focuses of working to secure a permanently funded F2S coordinator.

### ***Political Feasibility: Low***

This alternative is scored as “Low” in terms of political feasibility. A bill to authorize annual funding in the state budget is a heavy political lift, requiring support from both chambers of the Virginia General Assembly and a signature from the governor. The current governor, Glenn Youngkin, is Republican. The legislature is divided, with the Republicans holding the majority in the House and Democrats holding the majority in the Senate. In the other states that have successfully funded permanent F2S coordinators, the state government was typically democratically controlled at the time. There are important exceptions, including Alabama, Florida, and Arkansas. The mission and outcomes of farm to school certainly have bipartisan interests involved. Political feasibility would increase if the F2S coordinator appropriations are embedded within the larger budget, rather than a stand-alone bill. When advocating a Republican majority, political feasibility increases the more equipped partner organizations are with data on the impact farm to school has for Virginia farmers and local economies. This message aligns with conservative priorities. There are several Republican Virginia Senators on the Agriculture Committee that may be more receptive to advocacy efforts, including Sen. Monty Mason and Sen Emmett Hanger, prioritizing education and the agriculture industry. Between 2015-2020, 17 bills providing for F2S coordinator positions were introduced, and of those 4 were passed (24%) (National Farm to School Network, 2021). However, passage rate doesn’t necessarily follow directly from the degree of political support needed due to underlying differences among states. Advocates in Oregon, for example, worked for 10 years to secure a permanently funded coordinator (Giombi et al., 2018).

### ***Administrative Feasibility: High***

This alternative is scored as “High” in regards to administrative feasibility. VA SNP has a depth of partner organizations already working to advocate for F2S expansion and growth that would likely be very supportive of this effort. Furthermore, a coordinator position already exists within VA SNP and it would be a fairly seamless transition to move the current grant funded position to the permanently funded one if there is agreement that the position should remain in VA SNP. Other states have the position housed in the Department of Agriculture, for example. The data collection, monitoring, and evaluation necessary to support effective advocacy efforts will require a significant investment of time, coordination, and technology. However, most of the heavy lifting in working with legislative champions will be accomplished by partners.

---

## **Alternative 2: Strengthen Food Hub Capacity and Relationships Between Schools and Food Hubs**

This alternative would expand on the Centralized Local Procurement Pilot Program pilot currently being developed by VDOE-SNP with two mutually reinforcing strategies of providing both financial and technical support to strengthen food hub capacity, as well as overcoming barriers to communication and facilitating strategic relationship building. The pilot program currently under development involves a partnership with 4P Foods and Appalachian Sustainable Development (ASD) to deliver local foods to schools in their region of service. The Centralized Local Procurement Pilot Program is funded by the USDA Supply Chain Assistance (SCA) Funds, which were announced in response to pandemic induced supply chain disruptions (USDA-FNS, 2021b). This one-time funding allocation will expire on September 30th, 2023. VDOE-SNP will allocate the funds among participating SFAs, who will purchase food from 4P Foods or ASD. 4P and ASD will then invoice VDOE-SNP for the sale. This alternative would look to carry the momentum of this pilot program forward and help foster stronger and more sustainable partnerships between Virginia food hubs and schools.

After funding for this pilot program expires, VDOE-SNP would provide additional sub grants to VA food hubs for building up their infrastructure and capacity to market to schools. All VA food hubs able to meet tracking and reporting standards would be eligible to receive funding. This expands on the previous pilot, which will only include food hubs with prior experience selling to schools. VA food hubs include Local Food Hub/4P Foods, ASD, Blue Ridge Local, Coastal Farms, Ecofriendly Foods LLC, Milton's Local, and Produce Source Partners (USDA-AMS, n.d.-a). VDOE-SNP would also engage in efforts to strategically strengthen relationships between VA food hubs and schools, by encouraging food hubs to initiate partnerships with school nutrition directors. VDOE-SNP would prominently feature food hub representatives at annual F2S conferences and convene additional relationship building activities. VDOE-SNP would provide educational programming and technical assistance to food hubs on how to market to schools. VA SNP would also facilitate meetings between food hubs and school nutrition directors.

### ***Cost Effectiveness: \$0.05 per \$1 increase in local food expenditures***

*\*See Appendix A for detailed cost effectiveness calculations\**

This alternative is highly cost effective, with only requiring \$0.05 in spending for a \$1 increase in local food expenditures. Estimates are based off an Iowa pilot program implemented in 2013 that sought to increase the capacity of food hubs to market to schools. This program was hugely successful in increasing dollars spent at both food hubs and direct to farmers both among pilot schools and by other schools within the 6-county region serviced by food hubs. The 2-year program was funded by a federal grant of \$95,600 that went towards increasing the capacity of food hubs and supporting costs of delivery, processing, and labor (Wiemerslage & Strohbehn, 2018) (Iowa State University Extension & Outreach, n.d.).

Assuming a similar effort in Virginia would have comparable outcomes and costs, investing in food hubs has the potential to increase local food expenditures from the current level of \$18 million to over \$63 million. A statewide program would cost about \$1.8 million over 5 years. It is worth noting that the number of farms in Iowa is about double that of Virginia (USDA-NASS, 2020).

---

The state government has also been very supportive of building local food infrastructure. However, Iowa also has a significant number of large farms geared toward producing commodities for export across the country. Iowa and Virginia also have a comparable number of food hubs.

### ***Equity: Medium***

This alternative is scored as “Medium” in terms of equity. Virginia has a total of 6 food hubs throughout the state. Appalachian Harvest, EcoFriendly Foods, and Blue Ridge Local would be the closest in geographic proximity to Southwest SFAs that have lower levels of engagement. Appalachian Harvest distributes from Maryland to Georgia. EcoFriendly Foods also has farmers markets in Arlington and D.C. Local Food Hub and 4P Foods are partners based in Central Virginia, but have the capability to transport products across several states along the east coast. As such, it would still take intentional effort to encourage food hubs located in Southwest VA to market to nearby school districts. Additionally, smaller school districts often have fewer resources and staff available to overcome barriers associated with local procurement. Food hubs help further equity in farm to school engagement by aggregating local products, providing convenient and reliable ordering and delivery services, and providing light processing in some cases. These services will be even more impactful if food hubs are the ones reaching out to schools, rather than placing the burden on school nutrition directors to initiate.

### ***Political Feasibility: High***

This alternative is scored as “High” in regards to political feasibility. Community support is expected to be strong, as this alternative takes the burden of finding growers and initiating relationships off of school nutrition directors and shifts it to the profit and mission driven entities of food hubs. Feedback from school nutrition directors emphasized that it would be helpful to have food hubs come directly to them given their time constraints. However, VDOE-SNP is cognizant of the fact that school nutrition directors are less familiar with food hubs as distributors. School nutrition may have inaccurate expectations for working with a food hub. This gap in understanding represents the justification for the value in this approach. VDOE-SNP would help provide clarity and proper expectations regarding the unique nature of food hubs as a distributor. Political feasibility is also aided by the relatively low cost of this alternative, with investments going towards existing organizations and the majority of effort on behalf of VDOE-SNP involving strategic reversal of the typical order of communication to build relationships. Food hubs are a natural supporter of this alternative, which provides direct support to expand their business and mission. Farmers are also natural supporters of this alternative, as many farmers face barriers to marketing to schools. Stronger relationships between food hubs and schools will mean greater demand for their products. Investment in food hub capacity will also likely help expand market opportunities for Virginia farmers beyond just schools. Iowa’s investment in food hubs saw a multiplying effect on local food spending, including increases in direct buying from farmers as well (Wiemerslage & Strohbehn, 2018). This alternative does not require legislation or appropriations from the Virginia General Assembly. As such, there should be no resistance from state legislators or the Governor. The previous administration was highly supportive of investing in Farm to School, with First Lady Northam issuing the \$22 million by 2022 challenge back in 2019 (Virginia Farm to School Leadership Team & Virginia Farm to School Network,

---

2021). Support from the new administration is fairly unknown, but support for farmers and local agriculture is definitely a priority.

***Administrative Feasibility: Medium***

This alternative is scored as “Medium” in regards to administrative feasibility. Virginia already has a fairly strong network of food hubs available to market to schools, and will not need to support the establishment of a new entity. Furthermore, the rollout of the Centralized Local Procurement Pilot will lay a solid foundation to transition into a longer-term pilot program with a broader scope for food hubs. VDOE-SNP will learn best practices for working with food hubs as well as how to help foster effective communication and relationship building between food hubs and school nutrition directors. Evaluation of Iowa’s pilot initiative highlighted that implementation of food hub-school networks is complicated. Implementation considerations include the development of delivery routes, labor and trucking, product development and processing, the need for a regular, weekly delivery schedule, and advanced notice to effectively manage inventory. Schools do typically finalize their monthly menus at least 2 weeks in advance, but food hubs typically ask for 3 weeks to be able to obtain the type and quantity of products demanded (Wiemerslage & Strohbehn, 2018). Based on the success of the Iowa pilot program and the subsequent Local Produce and Protein Program grants also implemented in Iowa in 2020, administrative feasibility does not seem to be an obstacle to program effectiveness. VA SNP might, however, consider scaling down this alternative from a statewide initiative to focusing on certain regions of Virginia that might have relatively less engagement with food hubs already.

---

### **Alternative 3: Pilot Incentive Program**

This alternative would pilot a grant program to provide schools with a lump-sum reimbursement for local food purchases. The typically higher cost of procuring local food is a significant barrier for schools who desire to incorporate more local foods but are tasked with being good stewards of the federal money they receive to operate school lunch programs. This pilot program would be implemented in Norfolk City Public Schools, as well as a School Food Authority (SFA) in Southwest Virginia. The calculations and assumptions used in evaluation of this alternative are based off of projections of program impact in Wise County and Norfolk.

#### ***Cost Effectiveness: \$1.16 per \$1 increase in local food expenditures***

*\*See Appendix A for detailed cost effectiveness calculations\**

The total cost of this program over 5 years is estimated to equal about \$2.6 million. Annually, the cost of this program would come out to about \$520,000. The costs include grant money provided to Norfolk City Public Schools and Wise County Public Schools as well as costs associated with program administration. A 2007 pilot incentive program in New Mexico allocated \$85,000 for a cluster of 12 schools in Albuquerque (National Farm to School Network, 2021). Norfolk City Public Schools has 52 schools and Wise County has 11 schools (USDA-FNS, 2019a) (USDA-FNS, 2019c). Using the same proportion as New Mexico, Norfolk should receive a grant of about \$370,000 and Wise should receive a grant of \$78,000. The Michigan 2016 pilot for its “10 Cents a Meal” Program was used to estimate the necessary funds for program administration, which made up about 14% of total funds allocated to the program (Matts, 2020). This funding was added to the grant estimates to calculate a total cost estimate for the pilot. The grant money in this alternative will be used directly to purchase local foods. As such, the grant quantity represents how much local food expenditures are expected to increase. By targeting 63 schools in a pilot over 5 years, it is projected that Virginia can increase annual local food expenditures by about \$450,000.

#### ***Equity: High***

This alternative is scored as “High” in regards to equity because the pilot specifically targets a diverse set of SFAs. Norfolk City Public Schools (NCPS), with 52 schools, is classified as “Very Large” by USDA and located in the tidewater region. Wise County is classified as “Large”, but only has 11 schools. It is located in rural Southwest Virginia. Both NCPS and Wise County Public Schools have lower SES, falling into USDA’s Quartile 3 and 4 poverty status, respectively. Quartile 3 refers to between 51-86% of students being eligible for Free/Reduced Price Lunch. Quartile 4 refers to more than 86% of students being eligible for Free/Reduced Price Lunch (USDA-FNS, 2019a) (USDA-FNS, 2019c).

#### ***Political Feasibility: Medium***

This alternative is scored as “Medium” in regards to political feasibility. The pilot is limited in scope and duration, which is more politically feasible than a permanent, statewide program. Of 30 pilot program bills that were introduced between 2015-2020, 8 passed (27%) (National Farm to School Network, 2021). Again, passage rate does not necessarily indicate directly the degree of political support needed. Additionally, this pilot program would not necessarily require a bill to be passed by the state and could be accomplished through federal grant money and support from local partners. Furthermore, the city of

---

Norfolk has fairly robust engagement with farm to school and has indicated interest in incentive programs. Their Local Food Local Places Initiative currently in the process of drafting an action plan includes the creation or expansion of financial incentives for local procurement.

The Virginia Roadmap to End Hunger released in October 2020 includes a goal to grow access to local foods for schools, suggesting the provision of financial incentives to defray the additional costs of local products. The Roadmap was published by the former Governor Ralph Northam's Children's Cabinet. While Virginia has a new administration, there are likely still legislative supporters of this Roadmap serving in the Virginia General Assembly (Virginia Roadmap to End Hunger, 2020).

***Administrative Feasibility: Low***

This alternative is scored as “Low” in terms of administrative feasibility. While the pilot program is geographically limited and the reimbursements are a lump-sum as opposed to a per-meal incentive, Virginia has never implemented an incentive program for farm to school. There is a significant level of infrastructure, coordination, technical assistance, technology, and program monitoring and evaluation necessary for effective implementation. This alternative would require VDOE-SNP to issue a request for proposals (RFPs) from schools in both SFAs to apply for funding, VDOE-SNP staff to undergo due diligence on each RFP, and build the infrastructure for funds to be transferred from VDOE-SNP to schools for purchasing local.

## OUTCOMES MATRIX

			
	Secure Permanently Funded F2S Coordinator	Strengthen Food Hub Capacity and Network	Pilot Incentive Program
Cost Effectiveness (Spending per \$ Increase in Local Expenditures)	\$0.83	\$0.05	\$1.16
Equity (SES/Geographic Reach)	Medium (2)	Medium (2)	High (1)
Political Feasibility	Low (3)	High (1)	Low (3)
Administrative Feasibility	High (1)	Medium (2)	Low (3)
Total	1.68	1.26	2.04

The overall rating for each alternative is calculated by averaging the rating for each criterion. “High” is given a numerical value of 1, “Medium” is given a numerical value of 2, and “Low” is given a numerical value of 3. The lowest total represents the alternative that performs the best when considering all of the criteria together. For example, the following calculation was performed to arrive at the 1.26 rating for strengthening food hub capacity and network:

$$(0.05 + 2 + 1 + 2) / 4 = 1.26$$

## RECOMMENDATION

Based on an analysis of the tradeoffs of each alternative on the basis of cost effectiveness, political feasibility, administrative feasibility, and equity, VA SNP should implement alternative 2, which increases the capacity of food hubs to market directly to schools and facilitates relationship building between food hubs and schools. This alternative is highly cost effective, with demonstrated spillover effects into increased local spending through other avenues in addition to food hubs. This option is relatively administratively feasible given the foundation that will be set by the Centralized Local Procurement Pilot Program to provide best practices on partnerships between schools and food hubs. The main focus of this recommendation also involves strategic relationship building and helping existing entities build up their capacity rather than creating new programs. In regards to equity, food hubs are present throughout the state and will be able to serve a variety of schools in both urban and rural settings. Partnering with ASD especially will ensure focus on increasing procurement from SFAs in Southwest Virginia. While the pilot incentive program also targets Southwest Virginia, investing in food hubs has the ability to make a broader geographic impact. This alternative is also highly politically feasible and sustainable with evidence pointing

to a timely, immediate impact. Securing a permanently funded F2S coordinator in the annual state budget would certainly further long-term growth and sustainability of VA F2S, however this alternative is politically infeasible under current conditions and the delayed impact on local procurement does not help VDOE-SNP reach its procurement goals for 2026. Improved food hub infrastructure and capacity, as well as relationship building efforts, will be able to sustain growth in farm to school across Virginia past the expiration of funding from VDOE-SNP.

As a general recommendation, VDOE-SNP should also invest in more consistent monitoring and evaluation of farm to school activities in SFAs across the state. Streamlining data collection and ensuring more robust survey response rates will help VA Farm to School better identify weaknesses and successes, as well as prepare VA Farm to School in future efforts to secure permanent funding. Strong data and evidence of outcomes will be necessary to achieve buy-in from the legislature. VDOE-SNP should also keep the other two alternatives on the table for the future as important next steps towards expanding local procurement and ensuring the long-term sustainability of farm to school in Virginia. Virginia might be more prepared from a political and administrative feasibility standpoint to implement a pilot incentive program or pursue the possibility of a permanently funded coordinator position in a few years from now.

---

## **IMPLEMENTATION**

This section offers detailed guidance for VDOE-SNP to implement the recommendation to invest in growing local procurement through food hubs. This recommendation involves two mutually reinforcing strategies of providing both financial and technical support to strengthen food hub capacity, as well as overcoming barriers to communication and facilitating strategic relationship building. This section also outlines the stakeholders involved in moving this recommendation forward and the roles each stakeholder should play. Guidance on timing and sequencing of next steps will also be shared. Finally, this memo offers an overview of potential implementation challenges and approaches to mitigate and overcome these risks. This memo heavily draws on insight from implementation of the highly effective Northeast Iowa Food and Fitness Initiative and Iowa's Local Produce and Protein Program, as well as implementation considerations present in VDOE-SNP's Centralized Local Procurement Pilot Program (Wiemerslage & Strohbehn, 2018) (Koether & Enderton, 2021).

### **Key Stakeholders and Roles in Implementation**

VDOE-SNP is the main actor in moving this recommendation forward as the office that houses the VA Farm to School Specialist and leads coordination of VA Farm to School. Key actors within VDOE-SNP naturally include the Farm to School Specialist, Brittany "Bee" Thorpe, as well as the following team members (VDOE, n.d.-b):

- Dr. Sandy Curwood, Director
- Kelly Shomo, SNP Training, Program Improvement & Grants Supervisor
- Laura Burns, School Wellness Policy Specialist
- Diane Bontoft, School Nutrition Finance Specialist
- Lisa Bonine, Special Projects Specialist
- Andrea Nannery, SNP Coordinator
- Ashley Roth, SNP Training & Marketing Specialist

These individuals will serve as implementation managers, helping acquire the necessary resources and providing oversight of regional and local level action. The VDOE-SNP team has authority to apply for federal grants and distribute grant funding for Farm to School efforts. VDOE-SNP also coordinates the annual Farm to School Conference. It will be important for the 2022 Farm to School Conference to heavily feature food hubs and provide opportunities for school nutrition directors to connect with food hubs. SNP Regional Specialists will help execute delivery of training and technical assistance for food hubs on marketing to schools. This includes understanding the constraints faced by schools in regards to timing, budgets, kitchen infrastructure, and menu planning.

Food hub directors are natural supporters of this recommendation. Schools represent a huge market opportunity to expand their business, as well as increase profits for their growers. Food hub directors might be concerned, however, about the convenience and sustainability of school partnerships and their capacity to provide consistent and adequate products to meet schools' needs. VDOE-SNP will need to connect with food hub representatives, with specific names included in the figure below. Many of these actors already

have a strong relationship with VDOE-SNP. Produce Source Partners, Local Food Hub, and 4P Foods are represented on the current VA Farm to School Leadership Team, with those members highlighted in bold (Virginia Farm to School Leadership Team & Virginia Farm to School Network, 2021). However, all of these entities need support in building relationships with more school nutrition directors, especially those who might have less geographic proximity to food hubs. VDOE-SNP should prepare a survey or hold a meeting to solicit feedback from these representatives on what resources would be most helpful in pursuing stronger relationships with schools.

FOOD HUB	KEY CONTACTS
Appalachian Sustainable Development Appalachian Harvest Food Hub (Appalachian Sustainable Development, n.d.)	Robin Robbins, General Manager
Local Food Hub (Local Food Hub, n.d.)	Anna Fife, Interim Executive Director
4P Foods (4P Foods, n.d.) *Already active supplier for Charlottesville City Schools and Albemarle County	<b>Tom McDougall, Founder and CEO</b> Emily Tucker, Director of Wholesale Beth Johnson, Director of Impact and Development
Coastal Farms (Coastal Farms, n.d.)	Mel and Kim Atkinson
Blue Ridge Produce (Blue Ridge Produce, n.d.) (Elkwood, VA)	Jim Epstein, Cofounder Mark Seale, Cofounder
Produce Source Partners (Produce Source Partners, n.d.) *Already active supplier for Old Dominion University	Norman Saville, President & CEO Steve Entz, CFO <b>Rachel Meyers, COO, C-Store Sales</b> Dan Budi, Director, Retail Sales and Local Farmer Liaison David Thomas, Director, Corporate Sales Mary Wiggins, Retail Sales Liaison Roxie Bowie, Marketing Coordinator

---

The Virginia Department of Agriculture and Consumer Services (VDACS) is another key stakeholder to move this recommendation forward. Seth Benton, Food Distribution Manager at VDACS, is a member of the Virginia Farm to School Leadership Team. VDACS is a critical partner as they help link farmers, vendors, food hubs, and distributors to VDOE-SNP, which has stronger relationships with school nutrition directors (VDACS, n.d.).

Nonprofit partners and advocacy organizations will also play a role in moving this recommendation forward. Members of the Virginia Food for Virginia Kids (VFVK) Steering Committee, including NoKidHungry, FoodCorps, Virginia Foundation for Early Youth, the Center for Ecoliteracy, and Real Food for Kids, are all invested in strengthening child nutrition programs and engagement with farm to school. The VFVK Steering Committee is led by VDOE-SNP Director Sandy Curwood and can provide value to this recommendation through communication campaigns and in Monitoring & Evaluation. The University of Virginia is an important partner in providing Monitoring & Evaluation services as well. Virginia Farm Bureau and Virginia Agriculture in the Classroom are other potential partner organizations (Virginia Roadmap to End Hunger, 2020) (Chef Ann Foundation, 2022).

The Virginia Cooperative Extension (VCE) will also be a key partner in delivering training and technical assistance for food hubs on building effective and sustainable relationships with school nutrition directors. Key staff at VCE include French Price, Value Chain Coordinator, who serves on the VA Farm to School Leadership team. French Price helps oversee Virginia MarketMaker, which may be a very critical technology towards helping connect food hubs and schools. Eric Bendfeldt, Crystal Tyler-Mackey, and Conaway Haskins are other Extension Specialists with whom might be helpful to coordinate to ensure effective delivery of technical assistance and programming (VCE, n.d.-a).

SNP Regional Specialists will help in identifying issues with implementation to their more direct relationship and frequent communication with school nutrition directors. They will serve as the ears on the ground for gathering insight into what is working well and what might be potentially ineffective at helping food hubs enter into sustainable business relationships with schools.

### **Timing & Sequencing of Next Steps**

In regards to timing and sequencing of implementation, VDOE-SNP should first connect with all identified stakeholders to present the initiative, solicit feedback, and incorporate feedback into program design. Investment in data collection, monitoring, and evaluation upfront will be crucial. VDOE-SNP should build a reporting mechanism to track purchases by schools at food hubs. A baseline measure of current purchase levels of schools from food hubs should be estimated. This information is available through the USDA Farm to School Census, which cites that 6.4% of SFAs, or 8 total SFAs, reporting a Local Food Hub as a procurement source (USDA-FNS Office of Policy Support, 2021). However, nonresponse and inconsistent robustness of Census data should prompt VDOE-SNP to conduct its own data collection. VDOE-SNP should work with VCE, VFVK, and other partners on building a mechanism for monitoring and evaluation of the impact of the grant to food hubs on boosting local procurement by schools.

---

VDOE-SNP should then begin working with VDACS and VCE to prepare technical assistance and training materials for food hubs on marketing to schools. This should also include surveying food hubs on their current level of relationships to schools, barriers to marketing with schools, best practices and testimonials on successful relationships, as well as testimonials on failures to build relationships with schools. This insight will help inform VDOE-SNP's grant proposal. Feedback will also help VDOE-SNP make decisions regarding how best to financially support capacity building for food hubs to successfully market to schools and increase local procurement.

VDOE-SNP will need to prepare a grant proposal and submit that proposal to USDA. It will be necessary to develop guidelines for how VDOE-SNP will distribute grant funds to food hubs in developing the proposal. USDA Food and Nutrition Service (FNS) will announce the request for applications for the FY 2023 Farm to School Grant Program in the fall of 2022 (USDA-FNS, 2021a). There are also other grant opportunities related to local food beyond just the USDA Farm to School Grants. USDA just announced on March 17, 2022 that they are now accepting applications for the Local Food for Schools Cooperative Agreement Program. Applications are due by June 17, 2022 (USDA-FNS, 2022).

In planning the next farm to school conference set to be held October 2022, VDOE-SNP should intentionally invest in a greater spotlight on food hubs. Food hub representatives should be invited to attend the conference. The conference should include time for food hub representatives to connect with school nutrition directors. VDOE-SNP might also consider hosting a separate conference specifically for this purpose as to not overshadow the effort with other programming. While the emphasis of this recommendation is on equipping food hubs to take on the initiator role in marketing to schools, VDOE-SNP and partners should also prepare specific resources to train school nutrition directors on purchasing from food hubs. It might be helpful to identify school nutrition directors that are already active purchasers from food hubs. These individuals can share their experience and best practices with other nutrition directors at the conference.

Upon approval of the grant application and receipt of funds, VDOE-SNP will then distribute funds to food hubs who have agreed to intentionally pursue marketing to schools. For accountability purposes, VDOE-SNP will need to monitor the food hubs who receive grant money. This will require an agreement from food hubs to share data with VDOE-SNP on sales to schools. VDOE-SNP will also be interested in how food hubs are spending grant money to grow their capacity. It is possible that food hubs might resist data sharing, but the monetary incentive of receiving the grant should be enough to overcome this potential point of tension.



	Connect with stakeholders for feedback to help with final program design	June 2022 - June 2023
	Build monitoring and evaluation infrastructure with partners and collect baseline data	June 2022 - June 2023
	Prepare training and technical assistance programming	June 2022 - June 2023
	Prepare grant proposal and submit application to USDA	June 2022 - June 2023
	Invite food hub representatives to the 2022 F2S Conference and plan to incorporate presentations/programming on procurement through food hubs	June 2023 - September 2023
	Distribute grant funding to food hubs and monitor use of funds to build capacity	August 2023 - June 2024
	Engage in ongoing monitoring and data collection on local procurement generally and specifically through food hub channel	June 2024 - June 2028

### Potential Implementation and Risk Mitigation Strategies

One clear implementation challenge is the potential for USDA to reject VDOE-SNP's grant application, which would leave VDOE-SNP without financing for this recommendation. If this does occur, VDOE-SNP should engage with nonprofit and private partners to acquire alternate funding sources. VDOE-SNP should already be communicating with these partners in planning for this initiative. In this case, VDOE-SNP might also need to downsize the scope of the recommendation to forgo the monetary incentive for food hubs and just focus on facilitating communication and relationship building between food hubs and schools. However, this will likely come at the expense of effectiveness as food hubs need additional support and infrastructure to grow as a reliable distributor for schools.

The potential for a food hub to cease operations and go out of business during the project timeframe would pose a challenge for implementation. This is a salient risk as GoGreen Farms, a food hub based in Hampton Roads and represented on the VA F2S Leadership Team, announced that it was ceasing operations the week of March 28, 2022.

Another potential implementation challenge includes any unintended consequences of the recommendation. Food hubs are supposed to decrease the costs associated with procuring local food through their aggregation and distribution services. However, it is certainly the case in other contexts where

---

expanding the role of the middle man leads to increased costs. Some stakeholders may also see efforts to expand the role of food hubs in farm to school procurement as providing a slippery slope to food hubs just becoming another large vendor. This is a concern regarding the integrity of farm to school and the definition of “local.” However, it is not likely that this recommendation evolves in such a way that does not stay true to the intent of farm to school. Food hubs are highly mission driven and prioritize strong relationships with their growers and community.

Federal grant money that will be used to help build food hub infrastructure and capacity is intended to overcome the common barriers to effective partnerships between food hubs and schools. These barriers, which were highlighted in Iowa’s Food and Fitness Initiative, include issues with communication, delivery routes, availability, scheduling, timing of purchasing, and distributing funds outside of the growing season (Wiemerslage & Strohbehn, 2018).

An additional risk mitigation strategy might entail a geographically limited rollout of grant money. Grant money might be provided to one or two food hubs to start, and then expand the program as success is seen and incorporating lessons learned. This is a common strategy for states who have implemented pilot incentive programs (National Farm to School Network, 2021).

---

## **CONCLUSION**

Investment in Farm to School is a win for Virginia kids, communities, and farmers. Farm to School is fundamental to ensuring students have equitable access to the nutrition they need for general health and wellness, as well as to learn effectively. School meals provide a huge opportunity to help kids establish healthy habits for the rest of their lives, as well as huge market opportunities for local producers. In working towards the goal of \$24 million in local food expenditures by 2026, this report recommends VDOE-SNP invest in strengthening the capacity of food hubs to market to schools as well as strengthen relationships between schools and food hubs. It will also be important for VDOE-SNP to streamline local food expenditure tracking and data collection across Virginia SFAs. Food hubs help overcome many of the barriers to engagement in farm to school from both the farmer side and school side. The Centralized Local Procurement Pilot Program is a great first step towards strengthening the role of food hubs in Virginia Farm to School. VDOE-SNP can carry the momentum from this pilot program to broaden its support of food hubs.

## APPENDIX A: Detailed Explanation of Cost-Effectiveness Analysis

### Alternative 1: Permanently Funded F2S Coordinator

#### Assumptions

- Levels of annual spending on local foods from 2022 to 2028 would be comparable to 2018-2019 SY levels in the absence of this alternative (USDA-FNS Office of Policy Support, 2021)
- Annual total food costs from 2022 to 2028 would be comparable to 2018-2019 SY levels (USDA-FNS Office of Policy Support, 2021)
- A permanently funded F2S Coordinator could be achieved in 5 years
- A permanently funded F2S Coordinator would receive a salary of \$75,000, which falls in the typical range from other states and current salary of the F2S specialist (National Farm to School Network, 2021)
- Funding to support advocacy efforts by partner organizations would cost VDOE-SNP \$25,000 per year. This dollar amount is drawn from the low end of typical turnkey grants awarded by USDA. (National Sustainable Agriculture Coalition, 2021)

Permanently Funded Farm to School Coordinator						
ASSUMPTIONS	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	*Projected year for securing permanent funding 2027-2028 Total
	0	1	2	3	4	5
General: Timeframe = 5 years						
Outcomes						
Spending on Local Foods (\$)	\$18,008,704.00	\$18,008,704.00	\$18,008,704.00	\$18,008,704.00	\$18,008,704.00	\$ 18,218,704.00
Increase in Spending on Local Foods from Previous SY (\$)	\$0	\$0	\$0	\$0	\$0	\$ 210,000.00
Total Food Expenditures	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$ 210,740,777.00
% of Total Budget on Local	8.55%	8.55%	8.55%	8.55%	8.55%	8.65%
Increase in Spending on Local Foods from Previous SY (% point)	0	0	0	0	0	0.10%
Additional Federal Grant Money Achieved						\$ 210,000.00
Costs						
Personnel						\$ 175,000.00
F2S Coordinator Salary						\$ 75,000.00
Operating Costs						\$ 75,000.00
Advocacy (Includes Education and Promotion Campaign, Monitoring & Evaluation)	\$0	\$25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 25,000.00	\$ 100,000.00
Cost-Effectiveness						
\$ increase in local food expenditures	\$210,000					
% Pt Increase in Local Foods as Part of Total Food Expenditures	0.07					
Total Cost over 5 years	\$175,000					
Cost Effectiveness (\$)	0.83					

\*Every \$0.70 spent on securing a permanently funded farm to school coordinator yields an additional \$1 in local food expenditures

## Additional Information on Local Food Expenditures for States with Permanently Funded F2S Coordinators

*(Note: these numbers cannot be considered causal)*

State	Year Position Established	Total # of Years	Local Food \$ (2011-2012)	Total Food \$ (2011-2012)	% Local (2011-2012)	Local Food \$ (2018-2019)	% Local (2018-2019)	% Pt. Change in % Local (2011 to 2019)	Political Climate During Year Established
Alabama	2012	10	\$1,137,514	\$33,307,103	3.4%	\$12,422,790	15.3%	11.93%	Governor: R, Legislature: R
Arkansas	2019	3	\$644,978	\$8,810,503	7.3%	\$11,849,091	16.3%	8.94%	Governor: R, Legislature: R
California	2014	8	\$51,286,093	\$274,180,859	18.7%	\$167,210,118	20.6%	1.85%	Governor: D, Legislature: D
Florida			\$29,498,105	\$264,586,675	11.1%	\$72,055,788	17.1%	5.91%	Governor: R, Legislature: R
Hawaii	2015	7	\$3,000,000	\$30,000,000	10.0%	\$2,767,469	6.1%	-3.93%	Governor: D, Legislature: D
Louisiana	2017	5	\$4,045,262	\$27,540,059	14.7%	\$9,700,036	11.3%	-3.34%	Governor: D, Legislature: R
Maryland			\$9,336,480	\$82,515,879	11.3%	\$19,883,634	14.5%	3.17%	Governor: R, Legislature: D
Michigan	2008	14	\$10,250,272	\$61,053,226	16.8%	\$28,598,370	17.6%	0.83%	Governor: D, Legislature: R Senate, D House
Missouri	2014	8	\$4,640,574	\$31,884,859	14.6%	\$19,997,836	22.2%	7.63%	Governor: D, Legislature: R
New York			\$40,910,626	\$245,215,709	16.7%	\$28,155,331	18.0%	1.34%	
North Carolina	2010	12	\$15,706,849	\$140,150,912	11.2%	\$40,106,799	21.5%	10.29%	Governor: D, Legislature: D
Oklahoma	2006 or 2015	16/7	\$4,549,836	\$40,410,792	11.3%	\$12,882,760	23.1%	11.82%	2006 Governor: D; Senate: D; 2015 Governor: R, Legislature R
Vermont	2011	11	\$1,380,280	\$8,518,232	16.2%	\$1,448,767	14.5%	-1.72%	Governor: D, Legislature: D
Wisconsin	2009	13	\$9,559,373	\$58,824,598	16.3%	\$9,645,872	12.8%	-3.49%	Governor: D, Legislature: D
Average					12.8%		16.5%	3.66%	

Note: Post-2013 highlighted as establishment of permanently funded F2S coordinator occurred in between the 2013 and 2019 Farm to School Census. Data missing for some states.

Source: USDA 2013 Farm to School Census, USDA 2019 Farm to School Census, National Farm to School Network

### Changes in Local Food Expenditures Among States with Permanently Funded F2S Coordinators

Average % local (2011-2012)	12.82%
Average % local (2018-2019)	16.48%
% point change in % local	3.66%
Average % local 2013 for states that created F2S position after 2013	13.05%
Average % local 2018 for states that created F2S position after 2013	15.28%
% pt. change in local	2.23%

## Alternative 2: Strengthen Food Hub Network and Capacity

### Assumptions

- Levels of annual spending on local foods from 2022 to 2028 would be comparable to 2018-2019 SY levels in the absence of this alternative (USDA-FNS Office of Policy Support, 2021)
- Annual total food costs from 2022 to 2028 would be comparable to 2018-2019 SY levels (USDA-FNS Office of Policy Support, 2021)
- Every food hub in Virginia would participate in the program and remain in operation throughout the entire 5-year period
- The Iowa Food Hub Pilot Program is a relevant model for estimating costs and impacts in Virginia (Wiemerslage & Strohbehn, 2018) (Iowa State University Extension & Outreach, n.d.)
- Costs associated with technical assistance and M&E are similar to budget requests made in the Virginia Food for Virginia Kids initiative and Centralized Local Procurement Pilot Program

Strengthening Food Hub Network and Capacity											
ASSUMPTIONS											
	planning year		year 1 of program								
Timeframe =5 years	2022-2023		2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	Total			
Outcomes	0	1	2	3	4	5					
Spending on Local Foods (\$)	\$18,008,704.00	\$ 30,060,000.00	\$ 63,727,200.00	\$ 63,727,200.00	\$ 63,727,200.00	\$ 63,727,200.00	\$ 63,727,200.00	\$45,718,496.00			
Increase in Spending on Local Foods from Previous SY (\$)		\$ 12,051,296.00	\$ 33,667,200.00	\$ -	\$ -	\$ -	\$ -				
Total Food Expenditures	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00				
% of Total Budget on Local	8.55%	14.26%	30%	30%	30%	30%	30%				
Increase in Spending on Local Foods from Previous SY (% point)			3	9	0	0	0				
<b>Costs</b>								<b>\$2,077,742.86</b>			
<b>Personnel</b>											
Total Personnel Costs											
<b>Capital Investments</b>											
Total Equipment Grants to Food Hubs			\$ 450,685.71	\$ 450,685.71	\$ 450,685.71	\$ 450,685.71	\$ 450,685.71	\$1,802,742.86			
<b>Operating Costs</b>											
Monitoring & Evaluation (UVA Research Rate)		\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 75,000.00			
Training/Technical Assistance Programming		\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 200,000.00			
<b>Cost-Effectiveness</b>											
\$ Increase in local food expenditures		\$45,718,496.00									
% Pt Increase in Local Foods as Part of Total Food Expenditures		9									
Total Cost over 5 years		\$2,077,742.86									
Cost Effectiveness with %		\$230,860.32									
<b>Cost Effectiveness with \$</b>		<b>\$0.05</b>									
*Every \$0.05 spent on expanding access to food hubs and building food hub capacity leads to \$1 increase in local food expenditures											
*Every 200,304.67 spent on expanding access to food hubs and building food hub capacity yields a 1 percentage point increase in share of total expenditures spent on local food											
<b>Evidence for Cost Assumptions</b>											
Centralized Local Procurement Program		\$2,193,591 for 1 year									
Virginia Food for Virginia Kids (VFVK)											
M&E Costs	\$30,000/2 years	\$15,000/year to contract out with UVA									
Training & Technical Assistance	\$80,000/year										
F2S Conference	\$30,150	This cost is already accounted for in VDOE-SNP's budget									
Total for VFVK	\$233,571										

<b>Figure 1: NE Iowa Food and Fitness Initiative Outcomes</b>				
* 4 pilot schools, grant funding went directly to food hub capacity building*				
Grant Dollar Amount for 2 Year Program	\$95,600			
<b>Outcomes for 4 Pilot Schools</b>				
	<b>2012-2013 Baseline</b>	<b>2013-2014</b>	<b>2014-2015</b>	<b>2015-2016</b>
<b>Total Local Food Expenditures</b>	\$10,451.00	\$22,897.00	\$52,401.00	
<b>Total Purchases from Food Hubs</b>		\$10,334.00	\$38,521.00	
<b>Increase in Local Food Expenditures from Baseline</b>		\$12,446.00	\$41,950.00	
<b>% of Purchases from Food Hubs</b>		45%	74%	
<b>Outcomes for Regional Districts (6 county region - captures pilot spillover effects)</b>				
<b># of School Districts Reporting</b>	16	14	14	
<b>Total Local Food Expenditures</b>	\$20,236.00	\$33,792.00	\$71,761.00	\$62,000.00
<b>Increase in Local Food Expenditures from Baseline</b>		\$13,556.00	\$51,525.00	\$41,764.00
<b>Total Purchases from Food Hubs</b>	\$0.00	\$11,046.00	\$48,411.00	
<b>% of Purchases from Food Hubs</b>		33%	67%	
<b>% Change from Previous Year</b>		66.99	112.36	-13.60
<b>Multiplier</b>		1.67	2.12	

VA SFAs	
Southwest	14
Blue Ridge	18
Southern	12
Central	11
Valley	16
Northeastern	12
Southside	18
Tidewater	18
Eastern	13
<b>Total</b>	<b>132</b>

<b>Figure 2: Projections for VA (5 Year Initiative) Based on NE Iowa FFI</b>						
	<b>2022-2023</b>	<b>2023-2024</b>	<b>2024-2025</b>	<b>2025-2026</b>	<b>2026-2027</b>	<b>2027-2028</b>
<b>Total VA Local Food Expenditures</b>	\$18,008,704.00	\$ 30,074,535.68	\$63,758,015.64	?	?	?
<b>SW VA Local (Noted for equity criteria)</b>	\$10,000	\$23,000	\$52,000			
<b>Total Expenditures</b>	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00			
<b>% Local</b>	8.55%	14.27%	30.25%			
<b>% Point Change in Local/Total</b>		5.73%	15.98%			
<b>132 VA School Districts/14 IA School Districts</b>	9.43					
<b>Equivalent Grant \$ Needed/2 years =</b>	9.43*\$95,600	\$901,371				

### Alternative 3: Pilot Gap Incentive Program

#### Assumptions

- Levels of annual spending on local foods from 2022 to 2028 would be comparable to 2018-2019 SY levels in the absence of this alternative
- Annual total food costs from 2022 to 2028 would be comparable to 2018-2019 SY levels
- Norfolk City and Wise County Public Schools would be willing participants in this pilot program
- Reported total food costs and local food expenditures by Norfolk City and Wise County Public Schools in the 2019 USDA Farm to School Census are accurate (USDA-FNS Office of Policy Support, 2021) (USDA-FNS, 2019a) (USDA-FNS, 2019c)
- Costs and impacts of New Mexico's pilot program in Albuquerque and Michigan's "10 Cents a Meal" pilot program are relevant models for predicting costs and impacts in Virginia (National Farm to School Network, 2021) (Matts, 2020)

Pilot Incentive Program							
ASSUMPTIONS	planning year						
	2022-2023 0	2023-2024 1	2024-2025 2	2025-2026 3	2026-2027 4	2027-2028 5	Total
General: Timeframe = 5 years	\$18,008,704.00	\$18,454,954.00	\$18,454,954.00	\$18,454,954.00	\$18,454,954.00	\$18,454,954.00	\$18,454,954.00
<b>Outcomes</b>							
Spending on Local Foods (\$)	\$0	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00
Increase in Spending on Local Foods from Previous SY (\$)							\$2,231,250.00
Total Food Expenditures	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00	\$210,740,777.00
% of Total Budget on Local	8.55%	8.76%	8.76%	8.76%	8.76%	8.76%	8.76%
Increase in Spending on Local Foods from Previous SY (% point)		0.21%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Costs</b>							\$2,594,476.74
Grant Funding	\$0	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$ 446,250.00	\$2,231,250.00
Program Administration (staff, technology, monitoring & evaluation,)	\$0	\$ 72,645.35	\$ 72,645.35	\$ 72,645.35	\$ 72,645.35	\$ 72,645.35	\$ 363,226.74
<b>Cost-Effectiveness</b>							
Increase in Local Food Expenditures Over 5 years	\$2,231,250.00						
Total Cost over 5 years	\$2,594,476.74						
<b>Cost Effectiveness</b>	\$1.16						
<i>*Every \$1.16 in spending toward the gap incentive program yields a \$1 increase in local food expenditures*</i>							

**Figure 1: Total Grant Size Calculation Using NM Albuquerque Public Schools Program as Baseline**

	NM Valley HS Cluster	Norfolk City	Wise County
# of schools	12	52	11
VA # of Schools: # of NM Schools		4.33	0.92
Grant Size (NM Grant * School Ratio)	\$ 85,000.00	\$ 368,333.33	\$ 77,916.67
<b>Total Grant Funding</b>	<b>\$ 446,250.00</b>		

**Figure 2: Administrative Costs Using MI 2016 "10 Cents a Meal" Pilot as Baseline**

Michigan 2016 Pilot Costs	2016-2017	2018-2019
Total	\$ 244,680.85	\$ 575,000.00
Actual grant awards	\$ 210,000.00	\$ 493,500.00
Program administration	\$ 34,680.85	\$ 81,500.00
% for administration	14%	14%
% of total for grants	86%	86%
# of grantees	16	57

**Figure 3: Estimates for Norfolk City & Wise County (Annual)**

	Norfolk City	Wise County	Total Pilot	VA
Current Total Expenditures	\$ 7,700,000.00	\$ 1,200,000.00	\$ 8,900,000.00	\$ 210,740,777.00
Current Local Food Expenditures	\$ 1,450,000.00	\$ 10,000.00	\$ 1,460,000.00	\$ 18,000,000.00
% Local	18.83%	0.83%		8.54%
Grant Size	\$ 368,333.33	\$ 77,916.67	\$ 446,250.00	
New Local Food Expenditures w/ Grant	\$ 1,818,333.33	\$ 87,916.67	\$ 1,906,250.00	\$ 18,446,250.00
Change in Local Food Expenditures				\$ 446,250.00
New % Local	23.61%	7.33%		8.75%
Change in % Local	4.78%	6.49%		0.21%
Program Administration Costs (14% of total)	\$ 59,961.24	\$ 12,684.11	\$ 72,645.35	
<b>Total Program Cost</b>	<b>\$ 428,294.57</b>	<b>\$ 90,600.78</b>	<b>\$ 518,895.35</b>	

---

## **APPENDIX B: VA F2S Leadership Team Roster**

(Virginia Farm to School Leadership Team & Virginia Farm to School Network, 2021)

Seth Benton, Food Distribution Manager, VDACS

Laura Burns, School Wellness Policy Specialist, Office of School Nutrition Programs, VDOE

Pat Caulkins, Petersburg HCAT Coordinator, Petersburg Healthy Options Partnership

Melissa Chase, Consumer Food Safety Program Manager, State Coordinator, Master Food Volunteer  
Program State Program Leader, VT/VCE

Breon Clemons, Founder, Go Green Farms

Sandy Curwood, Director, Office of School Nutrition Programs, VDOE

Frederick Custis, Field Coordinator, VSU/VCE SFOP

Andrea Early, Executive Director of School Nutrition, Harrisonburg City Schools

Brick Goldman, Owner, Goldman Farms

Bee Thorp, Farm to School Specialist, Office of School Nutrition Programs, VDOE

Heidi Hertz, Assistant Secretary of Agriculture and Forestry, VDACS

Daniel Judkins, Farm Manager, Isle of Wight Agriculture Land Lab

Roni LaPelle, Marketing Specialist, Food and Nutrition Services, Chesterfield County Public Schools

Libby Lyon, Owner, Roots and Rows LLC

Tammy Maxey, Program Director, Virginia AITC

Emily Tucker, Director of Wholesale, 4P Foods

Julia Hoffman, Local Food Sales Advocate, 4P Foods (note-taker for leadership team meetings)

Maureen McNamara-Best, Executive Director, Local Environmental Agriculture Program

Rachel Meyers, Chief Operating Officer, Produce Source Partners

Robin Moore, Director of Food Services, Mecklenburg County Public Schools

LaVeta Nutter, Specialist, Agriculture and Related Clusters, VDOE

French Price, Value Chain Coordinator, VT/VCE

Hannah Quigley, Food System Advisory, COVID-19 Long-Term Care Team, Richmond City Health District

Kathleen Reed, Extension Master Gardener Program State Coordinator, VT/VCE

Hannah Robbins, Marketing Specialist, VFHY

Denise Rowell, Member, Loudoun County Rural Economic Development Council

Heather Steide, Operations Specialist, Norfolk Public Schools

Courtney Umbarger, Owner, Laurel Springs Farm

Amber Vallotton, Co-Lead, VCE Farm to School Program Team, Fresh Produce Safety Team

Coordinator, Extension Specialist, Produce Safety Alliance Certified Lead Trainer, VT/VCE

Tracy Webster, School Nutrition Coordinator, Wythe County Public Schools

LaWanda (Pegi) Wright, Extension Agent, Unit Coordinator, Family and Consumer Sciences, VT/VCE

---

## REFERENCES

- 2019 Farm to School Census v2 | Ag Data Commons. (n.d.). Retrieved March 17, 2022, from  
<https://data.nal.usda.gov/dataset/2019-farm-school-census-v2>
- 4P Team | 4P Foods. (n.d.). Retrieved March 17, 2022, from <https://4pfoods.com/our-team>
- Appalachian Sustainable Development. (n.d.). *Homepage*. Appalachian Sustainable Development. Retrieved March 17, 2022, from <https://www.asdevelop.org/>
- Barham, J. (2017, February 17). *Getting to Scale with Regional Food Hubs*.  
<https://www.usda.gov/media/blog/2010/12/14/getting-scale-regional-food-hubs>
- Beers, S., & Sharak, R. (2022). *Community Action Plan for Norfolk, Virginia: Local Foods, Local Places Technical Assistance*. USDA, EPA, City of Norfolk Department of Economic Development.
- Bendfeldt, E., Tyler-Mackey, C., Benson, M., Hightower, L., & Niewolny, K. (2011). *Virginia Farm to Table: Healthy Farms and Healthy Food for the Common Wealth and Common Good—A Strategic Plan for Strengthening Virginia’s Food System and Economic Future*. Virginia Farm to Table Team.  
[https://feedva.org/wp-content/uploads/2019/02/VA-Farm-to-Table\\_Extension.pdf](https://feedva.org/wp-content/uploads/2019/02/VA-Farm-to-Table_Extension.pdf)
- Benson, M., & Niewolny, K. (2018). *Virginia Farm to School Resource Guide: Helping Connect Virginia Foods to Virginia Schools* (p. 42). Virginia Cooperative Extension.  
<https://resources.ext.vt.edu/contentdetail?contentid=1470>
- Blue Ridge Produce: About. (n.d.). Retrieved March 17, 2022, from  
<http://www.blueridgeproduce.net/about.php>
- Bobronnikov, E., Boyle, M., Grosz, M., Lipton, I., Nutter, R., Velez, M., & Yadav, L. (2021). *Farm to School Literature Review* (p. 108). Abt Associates Prepared for USDA FNS. <https://fns-prod.azureedge.net/sites/default/files/resource-files/Farm-to-School-LitReview.pdf>
- Bobronnikov, E., Prenovitz, S., & Yadav, L. M. B. (2021). *2019 Farm to School Census Report* (p. 3). Abt Associates Prepared for USDA FNS. <https://fns-prod.azureedge.net/sites/default/files/resource-files/2019-Farm-to-School-Census.pdf>
- Chef Ann Foundation. (2022, February 15). *Virginia is Committing to Local, Scratch-Cooked School Food Statewide*. Chef Ann Foundation. <https://www.chefannfoundation.org/blog/local-scratch-cooked-school-food-statewide>
- Coastal Farms, Inc. (n.d.). Virginia Land Conservation Assistance Network. Retrieved March 17, 2022, from <http://www.virginalandcan.org/local-resources/Coastal-Farms-Inc/27294>

- Corey, K., Standing, K., Simmerman, J., & Khan, C. (2018, March). *Evaluation of Pilot Project for Procurement of Unprocessed Fruits and Vegetables* | USDA-FNS. <https://fns-prod.azureedge.net/sites/default/files/ops/Unprocessed-Pilot.pdf>
- Curwood, S. (2021, October 5). *Farm to School Innovations & Opportunities*.
- Denton, L. (2020, February 14). How Farm-to-School Programs Impact Communities. *National FFA Organization*. <https://www.ffa.org/ag-101/how-farm-to-school-programs-impact-communities/>
- Duke Global Health Institute. (2014, April 7). *Over a Lifetime, Childhood Obesity Costs \$19,000 Per Child*. Duke Global Health Institute. <https://globalhealth.duke.edu/news/over-lifetime-childhood-obesity-costs-19000-child>
- Fitzsimmons, J., & O'Hara, J. K. (2019). Market Channel Procurement Strategy and School Meal Costs in Farm-to-School Programs. *Agricultural and Resource Economics Review*, 48(3), 388–413. <https://doi.org/10.1017/age.2019.18>
- Galarneau, T., Millward, S., & Laird, M. (2013). Farm to School Efforts: Innovations and Insights. *The Center for Agroecology & Sustainable Food Systems*, 12.
- Giombi, K., Rains, C., Wiecha, J., Joshi, A., & Merrill, M. (2018). *State Policy Development for Oregon's Farm to School Grant Program: Successes and Lessons Learned*. RTI International & National Farm to School Network. [https://assets.website-files.com/5c469df2395cd53c3d913b2d/61105c929232d272b53048a4\\_OregonPolicyStudy.pdf](https://assets.website-files.com/5c469df2395cd53c3d913b2d/61105c929232d272b53048a4_OregonPolicyStudy.pdf)
- GoGreen Farms. (n.d.). *Fresh Local Food & Produce | GoGreen Farms & Greenhouses | United States*. Retrieved March 17, 2022, from <https://www.gogreenfarms757.com/>
- Griffin, K., & Kemple, M. (2018). *Political History of Oregon's Farm to School and School Garden Program*. Oregon Farm to School and School Garden Network Policy Working Group. [https://assets.website-files.com/5c469df2395cd53c3d913b2d/61105f1dd00507abc2351a4f\\_Oregon%20F2SSG%20Political%20History%203-20-18.pdf](https://assets.website-files.com/5c469df2395cd53c3d913b2d/61105f1dd00507abc2351a4f_Oregon%20F2SSG%20Political%20History%203-20-18.pdf)
- Grigsby, T., MacAuley, L. E., Niewolny, K. L., & Curwood, S. (2018). *Virginia Farm to School Network 2018 Evaluation Report*. Virginia Department of Education. <https://feedva.org/wp-content/uploads/2019/03/2018farmtoschool-survey-final-vdoe-vt.pdf>
- Han, S. (2013). *Geographic Preference: A primer on purchasing fresh local food for schools*. Prepared for School Food FOCUS by the Harrison Institute for Public Law, Georgetown Law. [https://fns-prod.azureedge.net/sites/default/files/FOCUS\\_GP\\_Primer.pdf](https://fns-prod.azureedge.net/sites/default/files/FOCUS_GP_Primer.pdf)

Hartman, A., Fainberg, L., Kruszewski, S., Morrell, E., & Allison, P. (2019). *Institutional Procurement of Local Food: Vermont Policy Snapshot*. The Farm to Institution New England, Vermont Law School Center for Agriculture & Food Systems.

[https://www.farmtoinstitution.org/sites/default/files/imce/uploads/Policy%20Snapshot\\_VT.pdf](https://www.farmtoinstitution.org/sites/default/files/imce/uploads/Policy%20Snapshot_VT.pdf)

Harvard Law School Health Law and Policy Clinic and, The Harvard Law School Mississippi Delta Project. (2011). *Legislative Recommendations for A Statewide Farm-to-School Bill in Mississippi*. Harvard Law School Health Law and Policy Clinic and the Harvard Law School Mississippi Delta Project.

<https://www.chlpi.org/wp-content/uploads/2013/12/FTS-legis-recs-FINAL-12-5.pdf>

Held, L. (2020, January 27). *Inside New York's Pursuit to Bring Local Food into More Schools*. Civil Eats.

<https://civileats.com/2020/01/27/inside-new-yorks-pursuit-to-bring-local-food-into-more-schools/>

Iowa State University Extension & Outreach. (n.d.). *Iowa Recipients of USDA Farm to School Grant Funding*. Farm, Food and Enterprise Development. Retrieved March 3, 2022, from

<https://www.extension.iastate.edu/ffed/iowa-recipients-farm-to-school-grant/>

Jean, P.-F. (n.d.). *FY 2021 Farm to School Grant List of Awardees*. 61.

Koether, K., & Enderton, A. (2021). *A REPORT BY THE IOWA FOOD HUB MANAGERS WORKING GROUP ON THE IMPACTS OF THE PRODUCE AND PROTEIN PROGRAM* (p. 6). Iowa Valley Resource Conservation and Development, Iowa State University Extension and Outreach, Food Hub Managers Working Group. <https://www.extension.iastate.edu/ffed/wp-content/uploads/Feb-16- -Final-FHMWG-LPPP-Eval-Report -Reduced-size.pdf>

Long, Abigail B. (2019.) Optimal local foods procurement in the national school lunch program: An analysis of potential impacts of farm to school policies on procurement practices in three northern Colorado school districts. Ph.D. diss., Colorado State University, <http://proxy01.its.virginia.edu/login?url=https%3A%2F%2Fwww.proquest.com%2Fdissertations-theses%2Foptimal-local-foods-procurement-national-school%2Fdocview%2F2307477523%2Fse-2%3Faccountid%3D14678> (accessed October 13, 2021).

MacDonald, J., & Hoppe, R. (2018, March 14). *USDA ERS - Examining Consolidation in U.S. Agriculture*. <https://www.ers.usda.gov/amber-waves/2018/march/examining-consolidation-in-us-agriculture/>

MarketMakerWebsite. (n.d.). Market Maker Virginia. Retrieved September 29, 2021, from <https://va.foodmarketmaker.com/>

Martinez, S., Hand, M., Pra, M. D., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Lohr, L., Low, S., & Newman, C. (2010). *Local Food Systems: Concepts, Impacts, and Issues* (No. 97; p. 87). USDA

- Economic Research Report.  
[https://www.ers.usda.gov/webdocs/publications/46393/7054\\_err97\\_1.pdf?v=0](https://www.ers.usda.gov/webdocs/publications/46393/7054_err97_1.pdf?v=0)
- Matts, C. (2020). *10 Cents a Meal Pilot: 2018-2019 Evaluation Results, Reflections, and Recommendations*. 34.
- Miller, A. (1579275477). *The Impact of School Meals*.  
[https://www.ted.com/talks/abby\\_miller\\_the\\_impact\\_of\\_school\\_meals](https://www.ted.com/talks/abby_miller_the_impact_of_school_meals)
- National Farm to School Network. (n.d.). *Policy*. The National Farm to School Network. Retrieved September 15, 2021, from <https://www.farmtoschool.org/policy>
- National Farm to School Network. (2020). *The Benefits of Farm to School*. National Farm to School Network. [https://assets.website-files.com/5c469df2395cd53c3d913b2d/611027419232d281ad2f51ff\\_BenefitsFactSheet.pdf](https://assets.website-files.com/5c469df2395cd53c3d913b2d/611027419232d281ad2f51ff_BenefitsFactSheet.pdf)
- National Farm to School Network. (2021). *State Farm to School Policy Handbook 2002-2020*. USDA ARS.  
[https://uploads-ssl.webflow.com/5c469df2395cd53c3d913b2d/611055ea25a740645f082f18\\_State%20Farm%20to%20School%20Policy%20Handbook.pdf](https://uploads-ssl.webflow.com/5c469df2395cd53c3d913b2d/611055ea25a740645f082f18_State%20Farm%20to%20School%20Policy%20Handbook.pdf)
- Nelson, A. (n.d.). *Vermont Food System Plan Market Brief School Food Procurement.pdf*. NOFA-VT and VT FEED. Retrieved December 11, 2021, from  
<https://www.vtfarmtoplate.com/assets/resource/files/Vermont%20Food%20System%20Plan%20Market%20Brief%20School%20Food%20Procurement.pdf>
- NFSN. (n.d.). *Equity*. National Farm to School Network. Retrieved September 14, 2021, from  
<https://www.farmtoschool.org/about/equity>
- NSFN Staff. (2021, February 2). *Farm to School Act of 2019 Introduced in Congress*.  
<https://www.farmtoschool.org/news-and-articles/farm-to-school-act-of-2019-introduced-in-congress>
- Perroni, E. (2017, October 4). Locally Grown, Widespread Benefits. *Food Tank*.  
<https://foodtank.com/news/2017/10/national-farm-school-initiatives/>
- Raines, A., Sasse, A., & Shiva, S. (2020). *LOCAL FOOD IN VERMONT SCHOOLS Barriers, Impacts, and Solutions for Local Food Acquisition*. The Nelson A. Rockefeller Center at Dartmouth College.  
[https://rockefeller.dartmouth.edu/sites/rockefeller.drupalmulti-prod.dartmouth.edu/files/prslocal\\_foods\\_vt\\_schoolsfinal.pdf](https://rockefeller.dartmouth.edu/sites/rockefeller.drupalmulti-prod.dartmouth.edu/files/prslocal_foods_vt_schoolsfinal.pdf)
- Roche, E., Conner, D., & Kolodinsky, J. (2015). Increasing Local Procurement in Farm to School Programs: An Exploratory Investigation. *Journal of Agriculture, Food Systems, and Community Development*, 5(2), 81–90. <https://doi.org/10.5304/jafscd.2015.052.019>

- Rosenthal, A., & Berkenkamp, J. (2015). *Exploring Regional Produce Procurement in Detroit Public Schools*. School Food FOCUS and Tomorrow's Table Prepared for USDA.  
<https://www.ams.usda.gov/sites/default/files/Exploring%20Regional%20Produce%20Procurement%20in%20Detroit%20Public%20Schools%20FINAL.pdf>
- State of Childhood Obesity. (n.d.). State Obesity Data: Virginia. *State of Childhood Obesity*. Retrieved September 28, 2021, from <https://stateofchildhoodobesity.org/states/>
- Stephens, L., Harris, J., Giombi, K., & Rains, C. (2021). *Leveraging Local Food Incentive Policy to Benefit Children and Producers*: 43.
- Team—Produce Source Partners. (n.d.). Retrieved March 17, 2022, from  
<https://producessourcepartners.com/our-story/team/>
- The Rockefeller Foundation. (2021, July). True Cost of Food: Measuring What Matters to Transform the U.S. Food System. *The Rockefeller Foundation*. <https://www.rockefellerfoundation.org/report>true-cost-of-food-measuring-what-matters-to-transform-the-u-s-food-system/>
- Tonti, L. (2017). Food for Thought: Flexible Farm to School Procurement Policies Can Increase Access to Fresh, Healthy School Meals. *Health Matrix: The Journal of Law-Medicine*, 27, 33.
- USDA. (n.d.). *2019 Farm to School Census v2 | Ag Data Commons*. Retrieved March 17, 2022, from  
<https://data.nal.usda.gov/dataset/2019-farm-school-census-v2>
- USDA. (2021, July 15). *USDA Awards \$12 Million in Record-Breaking Farm to School Grants, Releases New Data Showing Expansion of Farm to School Efforts*. <https://www.usda.gov/media/press-releases/2021/07/15/usda-awards-12-million-record-breaking-farm-school-grants-releases>
- USDA-AMS. (n.d.-a). *Local Food Directories: Food Hub Directory | Agricultural Marketing Service*. Retrieved March 3, 2022, from <https://www.ams.usda.gov/local-food-directories/foodhubs>
- USDA-AMS. (n.d.-b). *USDA AMS Food Hubs Map*. Retrieved March 3, 2022, from  
<https://search.ams.usda.gov/foodhubs/googleStateMap.aspx?state=Virginia>
- USDA-AMS. (n.d.-c). *USDA Pilot Project for the Procurement of Unprocessed Fruits and Vegetables, Virginia*. 1.
- USDA-ERS. (2010). *Local Food Systems Concepts, Impacts, and Issues* (No. 97). USDA Economic Research Service. [https://www.ers.usda.gov/webdocs/publications/46393/7054\\_err97\\_1.pdf?v=0](https://www.ers.usda.gov/webdocs/publications/46393/7054_err97_1.pdf?v=0)
- USDA-FNS. (n.d.-a). *2020 Farm to School Grant Request for Applications is Here*. USDA Food and Nutrition Service. Retrieved February 9, 2022, from  
<https://content.govdelivery.com/accounts/USFNS/bulletins/2650d78>
- USDA-FNS. (n.d.-b). *About the Data | USDA-FNS Farm to School Census*. Retrieved April 3, 2022, from  
<https://farmtoschoolcensus.fns.usda.gov/census-results/about-data>

USDA-FNS. (n.d.-c). *Fairfax County Public Schools, VA 22042 | USDA-FNS Farm to School Census*.

Retrieved September 14, 2021, from <https://farmtoschoolcensus.fns.usda.gov/census-results/states/va/fairfax-county-public-schools-22042>

USDA-FNS. (n.d.-d). *Home | USDA-FNS Farm to School Census*. Retrieved September 14, 2021, from <https://farmtoschoolcensus.fns.usda.gov/>

USDA-FNS. (n.d.-e). *Procuring Local Foods | USDA-FNS*. Retrieved September 28, 2021, from <https://www.fns.usda.gov/cfs/procuring-local-foods>

USDA-FNS. (2016). *Research Shows Farm to School Works*. USDA FNS Office of Community Food Systems. [http://agrilife.org/ipm/files/2016/07/FactSheet\\_Research\\_Shows\\_F2S\\_Works.pdf](http://agrilife.org/ipm/files/2016/07/FactSheet_Research_Shows_F2S_Works.pdf)

USDA-FNS. (2017). *GEOGRAPHIC PREFERENCE: What It Is and How to Use It*. USDA-FNS Office of Community Food Systems. <https://fns-prod.azureedge.net/sites/default/files/f2s/GeoPreference.pdf>

USDA-FNS. (2018). *Final Report: Evaluation of the USDA Pilot Project for Procurement of Unprocessed Fruits and Vegetables*. 130.

USDA-FNS. (2019a). *Norfolk City Public Schools, VA 23510 | USDA-FNS Farm to School Census*. <https://farmtoschoolcensus.fns.usda.gov/census-results/states/va/norfolk-city-public-schools-23510>

USDA-FNS. (2019b). *Virginia | USDA-FNS Farm to School Census*. <https://farmtoschoolcensus.fns.usda.gov/census-results/states/va>

USDA-FNS. (2019c). *Wise County Public Schools, VA 24293 | USDA-FNS Farm to School Census*. <https://farmtoschoolcensus.fns.usda.gov/census-results/states/va/wise-county-public-schools-24293>

USDA-FNS. (2021a, November 18). *Resources for Farm to School Grant Program Applicants | Food and Nutrition Service*. <https://www.fns.usda.gov/cfs/resources-farm-school-grant-program-applicants>

USDA-FNS. (2021b, December 17). *USDA Distributes \$1.5 Billion to Strengthen School Meal Program | Food and Nutrition Service*. USDA Food and Nutrition Service. <https://www.fns.usda.gov/news-item/usda-0273.21>

USDA-FNS. (2022, March 17). *USDA Now Accepting Applications for the Local Food for Schools Cooperative Agreement Program, Providing Up To \$200 Million to Purchase Local Food for Schools | Food and Nutrition Service*. <https://www.fns.usda.gov/news-item/usda-0061.22>

USDA-NASS. (2020). *Farms and Land in Farms 2019 Summary* (p. 17).

[https://www.nass.usda.gov/Publications/Todays\\_Reports/reports/fnlo0220.pdf](https://www.nass.usda.gov/Publications/Todays_Reports/reports/fnlo0220.pdf)

VCE. (n.d.-a). *Community & Leadership*. Virginia Cooperative Extension. Retrieved March 17, 2022, from  
[https://www.ext.vt.edu/content/ext\\_vt\\_edu/en/community-leadership.html](https://www.ext.vt.edu/content/ext_vt_edu/en/community-leadership.html)

VCE. (n.d.-b). *Virginia Market Maker*. Retrieved February 9, 2022, from  
[https://www.ext.vt.edu/content/ext\\_vt\\_edu/en/agriculture/market-maker.html](https://www.ext.vt.edu/content/ext_vt_edu/en/agriculture/market-maker.html)

VCE. (n.d.-c). *Virginia MarketMaker offers solution for producers facing market losses due to COVID-19*. Retrieved February 9, 2022, from [https://vtx.vt.edu/content/vtx\\_vt\\_edu/en/articles/2020/03/cals-aaec-marketmaker-covid19.html](https://vtx.vt.edu/content/vtx_vt_edu/en/articles/2020/03/cals-aaec-marketmaker-covid19.html)

VDACS. (n.d.). *Virginia Farm to School Program*. Retrieved September 13, 2021, from  
<https://www.vdacs.virginia.gov/marketing-virginia-farm-to-school-program.shtml>

VDOE. (n.d.-a). *VDOE :: Frequently Asked Questions*. Retrieved September 28, 2021, from  
<https://www.doe.virginia.gov/support/nutrition/resources/faqs.shtml>

VDOE. (n.d.-b). *VDOE Staff—By Divisions Listing*. Retrieved March 17, 2022, from <https://www.va-doeapp.com/StaffByDivisions.aspx?a=School%20Nutrition&w=true>

VDOE-SNP. (n.d.). *VDOE :: School Nutrition*. Retrieved September 14, 2021, from  
<https://www.doe.virginia.gov/support/nutrition/index.shtml>

Virginia Farm to School Leadership Team, & Virginia Farm to School Network. (2021). *Draft Virginia Farm to School Strategic Plan 2021–2026*.

Virginia Roadmap to End Hunger. (2020). FeedVA, Commonwealth of Virginia Children's Cabinet, Federation of Virginia Food Banks, Virginia Department of Social Services. <https://feedva.org/wp-content/uploads/2020/10/Virginia-Roadmap-to-End-Hunger.pdf>

VT Farm to School & Early Childhood Network. (2021, June 16). *Vermont Enacts Local Food Purchasing Incentive for Schools: \$500,000 appropriated for Year One*. Vermont Farm to School Network.  
<https://vermontfarmtoschool.org/vermont-enacts-local-food-purchasing-incentive-schools-500000-appropriated-year-one>

Wallace, H. (2021, September 10). *The Next Chapter for Farm to School: Milling Whole Grains in the Cafeteria*. Civil Eats. <https://civileats.com/2021/09/10/the-next-chapter-for-farm-to-school-milling-whole-grains-in-the-cafeteria/>

Washington, J. (2021, October 5). *Farm to School Procurement Training*.

Wiemerslage, T., & Coleman, S. (n.d.). *Summary of Northeast Iowa Farm to School Processing Pilot, 2014-2015*. Iowa State University Extension and Outreach. <https://store.extension.iastate.edu/product/15471>

Wiemerslage, T., & Strohbehn, C. (2018). *Increasing the Capacity of a Local Food Hub to Service School District Nutrition Programs*. Iowa State University Extension and Outreach.

---

<https://store.extension.iastate.edu/product/Increasing-the-Capacity-of-a-Local-Food-Hub-to-Service-School-District-Nutrition-Programs>