

Minnesota Department of Agriculture Farm to School Grant Fiscal Year 2023 Evaluation

Interim economic impact, product mix analysis, and producer feedback

Prepared by University of Minnesota Extension and
the Institute for Agriculture and Trade Policy



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Executive Summary

The Minnesota Department of Agriculture (MDA) Farm to School Grants allocated over \$3.5 million to Minnesota schools for local food purchases in the Fiscal Year 2023 (FY2023) round of grants, awarding 60 First Bite and 56 Full Tray Food Grants to schools throughout the state.

With forty six percent of funds expended to date, these local purchases, combined with economic ripple effects, have created an estimated nearly \$3.1 million in economic impact on Minnesota's economy. Most purchases were made directly through producers, with food hubs and distributors also providing products for some districts. School districts purchased a range of products. Of note, nearly half of sales (48%) were for local proteins, 18% were local vegetables and 20% were for fruits, including the Farm to School standby, apples.

Feedback from farmers who provided products through this funding indicated a variety of benefits, challenges, and opportunities for growth. Farmers noted a number of Farm to School benefits, ranging from business-related benefits surrounding sales volume or type, to values-aligned sales supporting local kids and community members. Farmers also reported challenges with pricing, delivery, and size of orders when selling to schools. They would appreciate support with finding school contacts. They indicated interest and ability to increase production to schools.

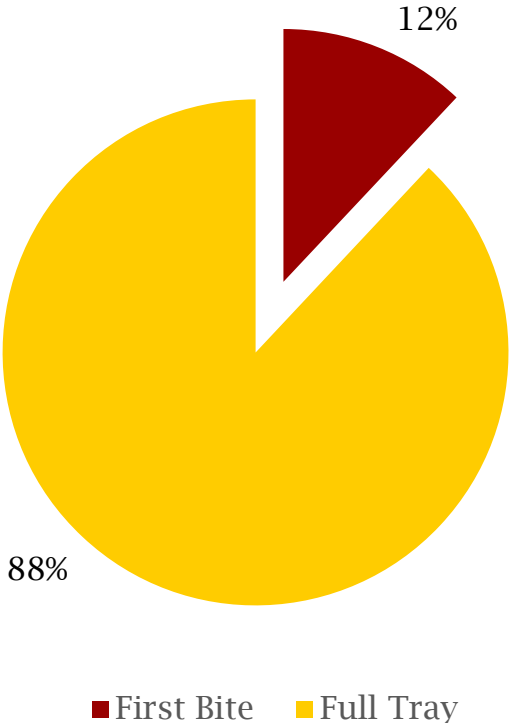
MDA's FY2023 Farm to School Grant Round

The FY2023 round of MDA Farm to School grants received requests for more than \$5.3 million and awarded \$4,209,717, with \$3,458,752 for Farm to School local food purchase reimbursement grants and \$769,788 in Farm to School kitchen equipment grants. FY2023 grant funding was significantly increased compared to previous grant rounds due to a [one-time infusion of federal funding to MDA through the United States Department of Agriculture \(USDA\) Local Food for School \(LFS\) Program](#). This report represents an interim analysis of spending to date. Grantees have until January 31, 2025, to fully expend funds for food contracts and until August 31, 2025, for equipment contracts.

Economic Impact and Product Mix

To understand the mix of products sourced from producers, the evaluation team analyzed data provided by MDA staff from school reimbursements. The schools provided MDA copies of invoices from their Farm to School suppliers as proof of their purchase from a Minnesota-based food supplier. As of the time of drafting this report, MDA had received evidence of purchases and reimbursed \$1.6 million to grantees.

Figure 1: Total spending by grantee type

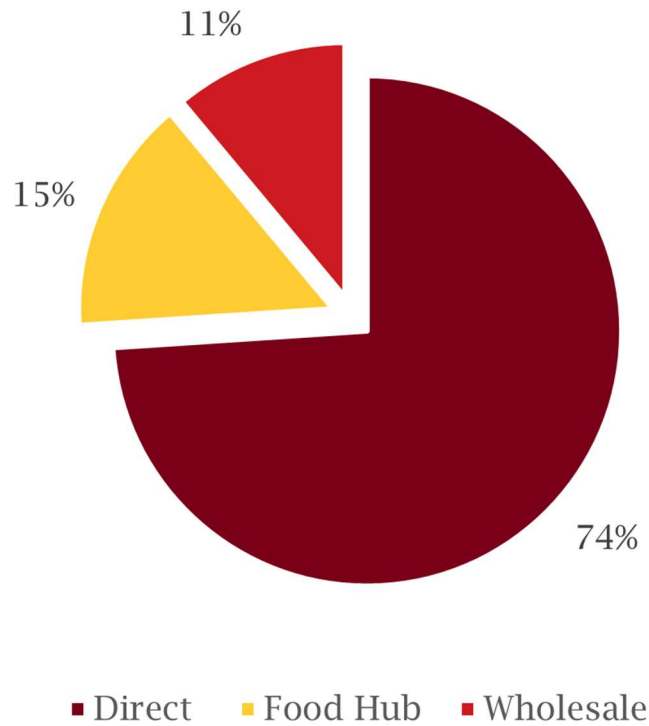


Purchasing Methods

Three quarters of the purchases of local foods spurred by the grant were direct from Minnesota farmers or food businesses who billed the schools directly. Examining all entities listed on invoices, Extension found a total of 435 vendors, a significant increase from our last analysis of FY2021 purchases when only 58 vendors were identified. Nearly all vendors were farm owner-operators. The number of food aggregation hubs involved in MDA’s Farm to School procurement grant also increased since our report on FY2021 spending. Some define themselves explicitly as “food hubs,” while others are farm operators aggregating and selling food on behalf of a group of operators, fitting better into the category of a food hub than a wholesaler. The Good Acre Food Hub remained an important source of local food serving the Metro area school districts, and a total of seventeen food hubs were identified through the analysis. Purchasing local foods through traditional wholesalers was most often done by large school districts, though the sales through the twelve wholesalers we identified accounted for only 11% of total sales.



Figure 2: Total sales by source

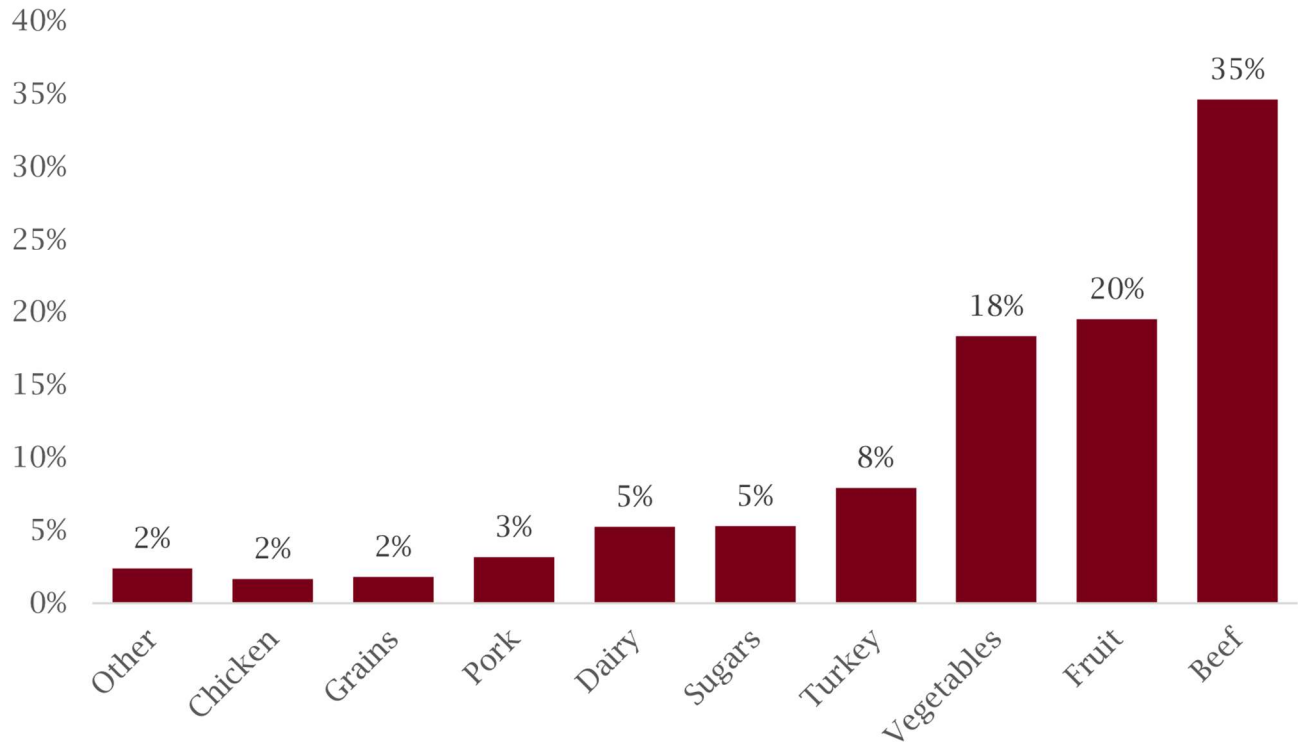


Product Mix

The detailed sales records from grantees provide a view of the purchasing patterns of schools engaged in Farm to School efforts. Extension analyzed the data by category and type of product.

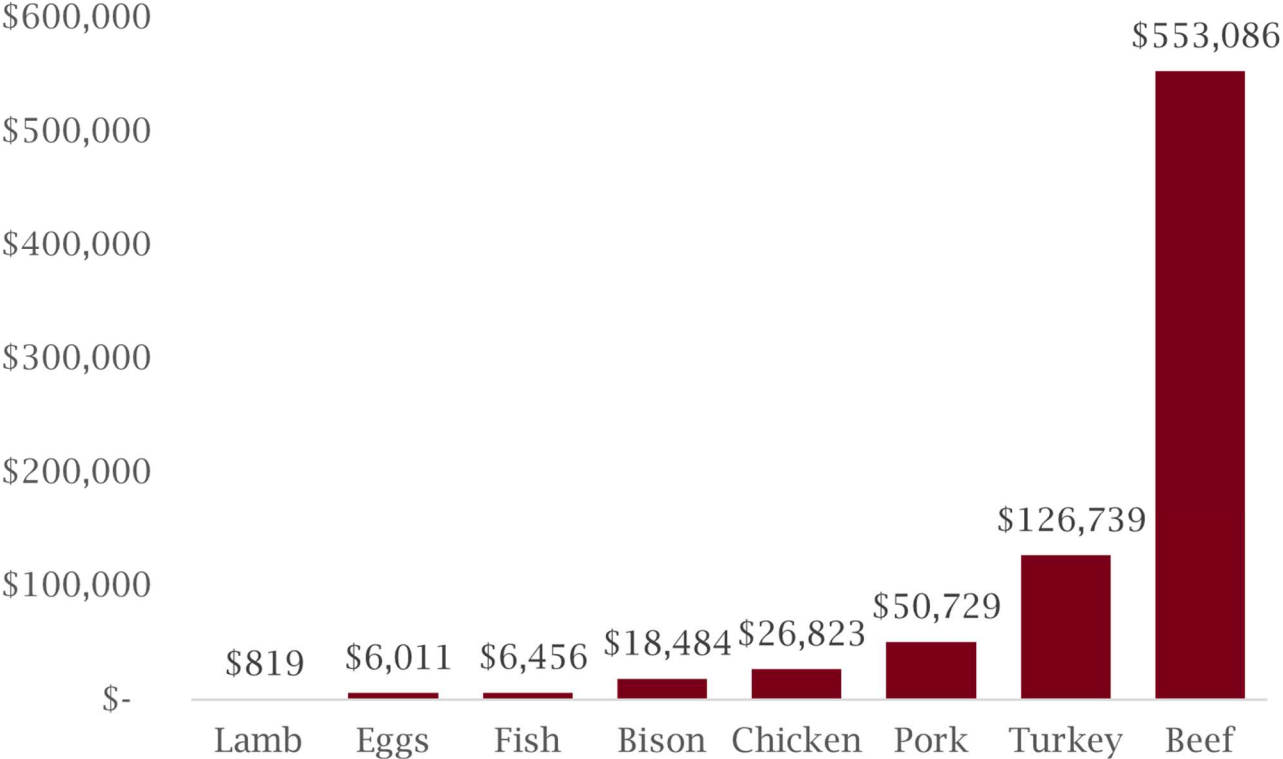
Meat was a large component of total school purchases from this grant round (48%). The largest protein category was beef which accounted for 35% of all sales. These products are more expensive than produce purchases, and it is possible schools may have only chosen to purchase them with the direct support of the procurement grant.

Figure 3: Products by category and percent of total dollars spent



Accounting for just under half of total sales, the proteins category consisted of turkey, beef, pork, chicken, and eggs. Beef was the most popular meat purchase, accounting for 70% of all protein sales, followed by turkey, which accounted for 16% of protein sales. The significantly increased Farm to School grant funding may have made beef, traditionally a higher cost item than other proteins, more accessible to schools. In contrast to our previous FY2021 analysis, schools did spend on a wider mix of protein items, including lamb, bison, chicken, and eggs. These purchases were small in comparison to beef and turkey but showed a willingness from schools to branch out to some less traditional proteins when given the opportunity.

Figure 4: Total protein purchases by type

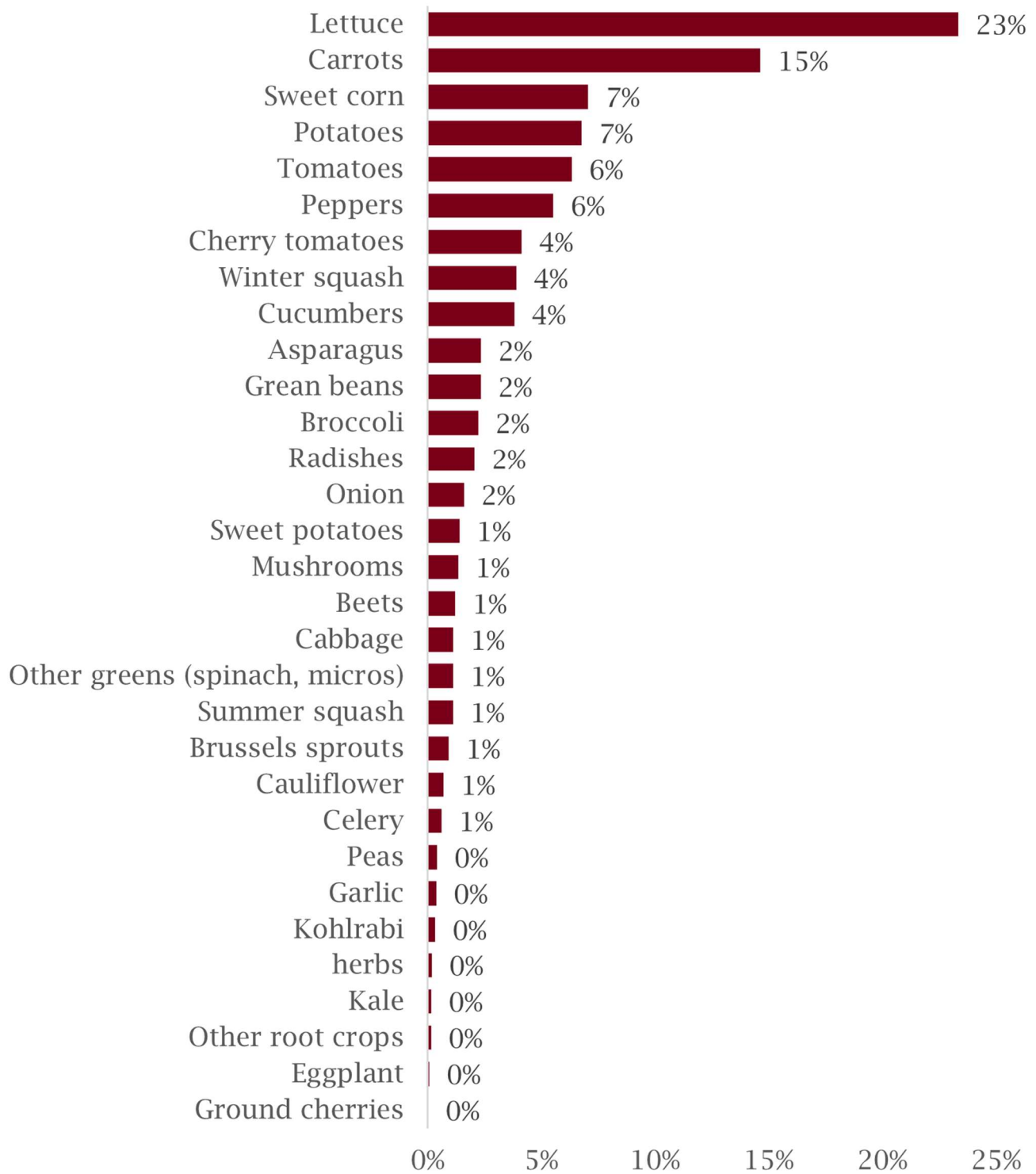


Vegetables and fruits, which have traditionally been a focus of Farm to School efforts, were 19.5% and 18.3% of total spending, respectively. Together, fruits and vegetables accounted for 37.8% of total school spending for the FY2023 data analyzed.

In the vegetable category, schools purchased over thirty-five different products, with the most popular vegetables by percentage of sales being lettuce (23%), carrots (15%) and sweet corn (7%). The least commonly purchased vegetables include such crops as ground cherries, eggplant, and minor root crops such as parsnips and turnips, all of which were found in single purchases. Some crops are favored by schools due to their availability during the school year, such as sweet corn at the beginning of the fall, whereas others are favored for their storage ability, like carrots, radishes, cabbage, and winter squash.

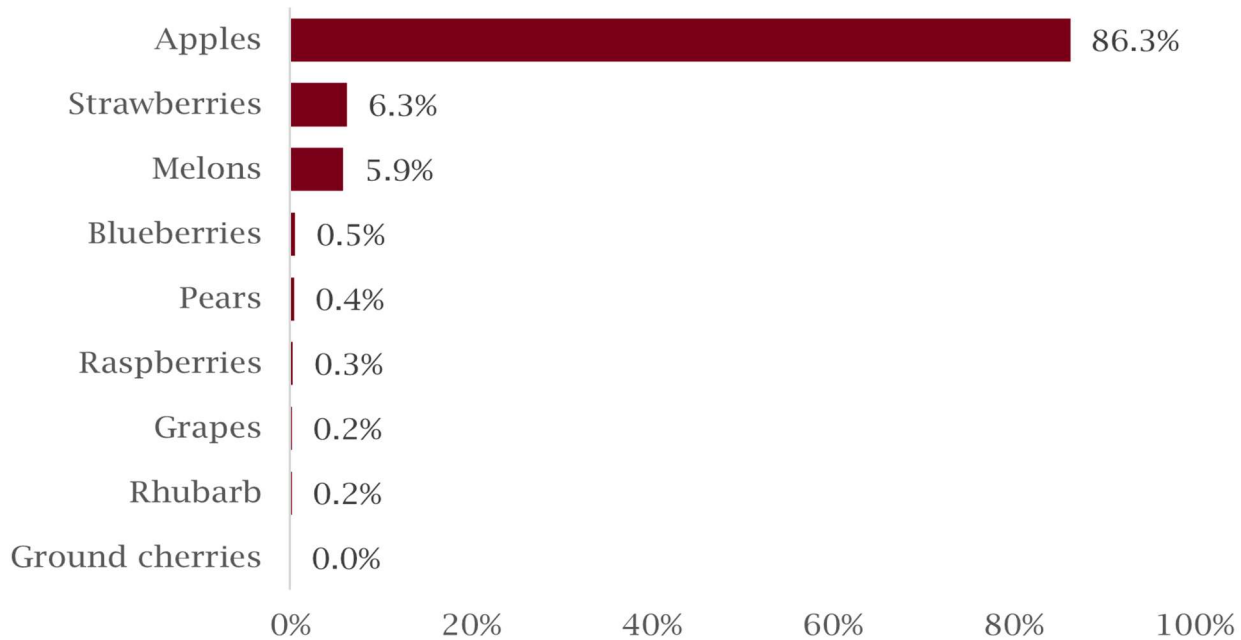


Figure 5: Vegetables by percent of sales



Fruit accounted for more sales than vegetables. Fruits reflected a smaller range of products, and the popularity of apples in Farm to School efforts won out as the most common choice, accounting for over 86% of all fruit sales in the dataset, followed by strawberries and melons (Figure 6).

Figure 6: Fruits by percent of sales



Economic Impact Analysis

As part of the evaluation process, stakeholders were interested in understanding the potential economic impact of Farm to School food spending in Minnesota.

Economic impact includes direct, indirect, and induced effects. The direct effect is spending directly for the project or activity. In this analysis, it is the spending by schools for local foods spurred by the grant funding. To quantify the direct effects, the Minnesota Department of Agriculture provided Extension with school district receipts detailing what food item was purchased and amount of spending for those items.

The analysis is based on the data provided through the fourth quarter of 2023. As of the time of this report, the Minnesota Department of Agriculture has reimbursed \$1.6 million of the total \$3.5 million awarded to MDA Farm to School grantees (46%), including both the Full Tray and First Bite awards. Grantees have through August of 2025 to fully expend funds. Extension generated the economic impact on the state of Minnesota based on both the amount reimbursed and the total allotment.

Table 1: Allocated and reimbursed awards for grant by type

Awardee	Reimbursed		Percent
First Bite	\$55,900.00	\$55,900.00	10%
Full Tray	\$239,006.65	\$478,013.30	90%
Total	\$294,906.65	\$533,913.30	100%

Considering fifty four percent of the allocation is not yet reimbursed, we provide two scenarios of economic impact:

1. **Impact to Date Scenario.** This is based on a direct effect of \$1.6 million already reimbursed to schools through quarter 4 of 2023.
2. **Full Allocation Scenario.** This is based on the direct effect of \$3.5 million allocated to Farm to School. For this scenario, Extension assumes that schools’ future Farm to School spending follows the same purchasing patterns as the spending already submitted for reimbursement in 2023.

Indirect and induced effects are also known as “ripple” effects. Spending for goods and services in the supply chain generates indirect effects. Take as an example when a school district purchases cheese produced by a local company. To produce the cheese, the local company will in turn purchase goods and services from its suppliers, creating an increase in the supply chain. Spending by the company’s employees — spurred by their paychecks — generates induced effects. Workers are paid and then purchase items, such as health care, housing, and groceries, generating further economic activity in their local community.

Extension used the input-output model IMPLAN to measure the economic impact of the MDA Farm to School grant funding. Input-output models capture the flow of goods and services within an economy. Once the pattern is established, the model can show how a change in one area of the economy (say food purchases) affects other parts of the economy (such as manufacturing and health care).

As you can see in Table 2, the MDA Farm to School grants have had a total impact of \$3.1 million on the state of Minnesota so far when adding the induced and indirect effects together with the grant spending. Overall, the direct impact of the Farm to School procurement (\$1,591,013) grant generates nearly an equal additional amount of indirect and induced impact in the Minnesota economy (\$1,556,903) by an increase in suppliers and labor necessary to generate the purchases in sales to schools. Put another way, **for every one dollar spent by schools using the MDA Farm to School procurement grant, an additional 0.99 cents of impact is generated in economic activity in the state.**

Economic impact terms

Direct effect: initial change

Indirect effect: business-to-business impacts

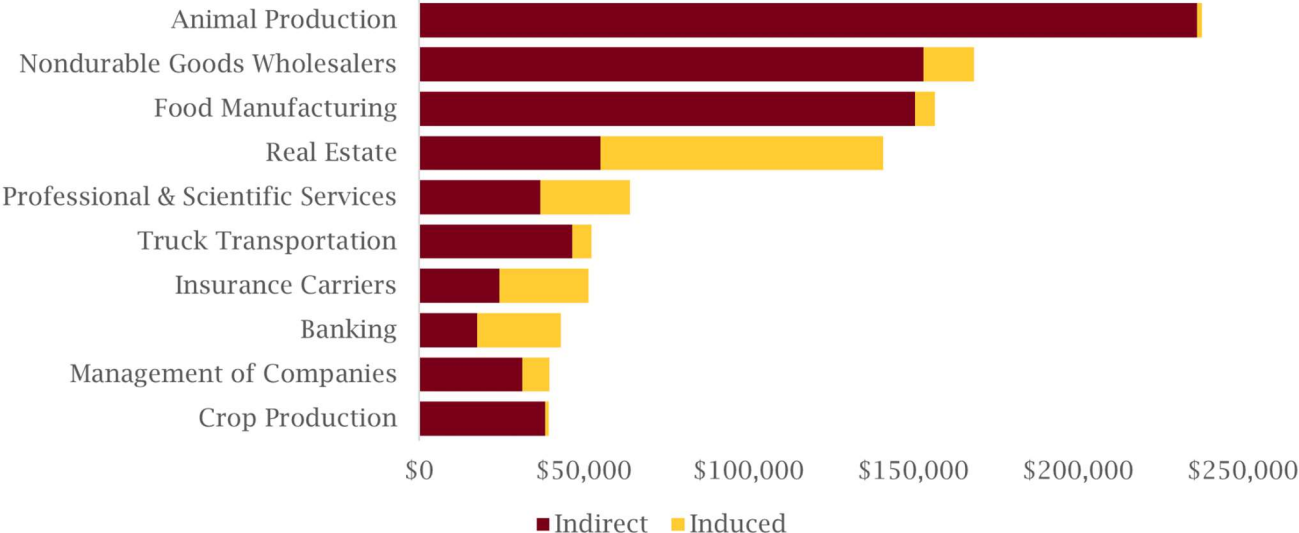
Induced effect: consumer-to-business impacts

Table 2: Total economic impact in Minnesota generated by Farm to School procurement grant to date

	Proprietor and Labor Income	Output (Sales)
1 - Direct	\$314,432	\$1,591,013
2 - Indirect	\$250,323	\$1,023,770
3 - Induced	\$175,996	\$533,133
Total	\$740,752	\$3,147,916

The impact on other businesses is not consistent across the economy but concentrated in industries most closely related to the businesses engaged in supplying the schools, such as animal production, wholesalers, and food manufacturing (Figure 7).

Figure 7: Top ten industries impacted by output (does not include direct impact)



In the second scenario in which the total MDA Farm to School grant allotment is spent, we essentially see a doubling of impact. The input-output model is linear, and, if one doubles the direct effect, the overall effect will also double (Table 3).

Table 3: Total economic impact in Minnesota generated by Farm to School procurement for total allocation

	Proprietor and Labor Income	Output (Sales)
1 - Direct	\$682,822	\$3,455,048
2 - Indirect	\$543,603	\$2,223,222
3 - Induced	\$382,194	\$1,157,753
Total	\$1,608,619	\$6,836,023

Survey of Producers

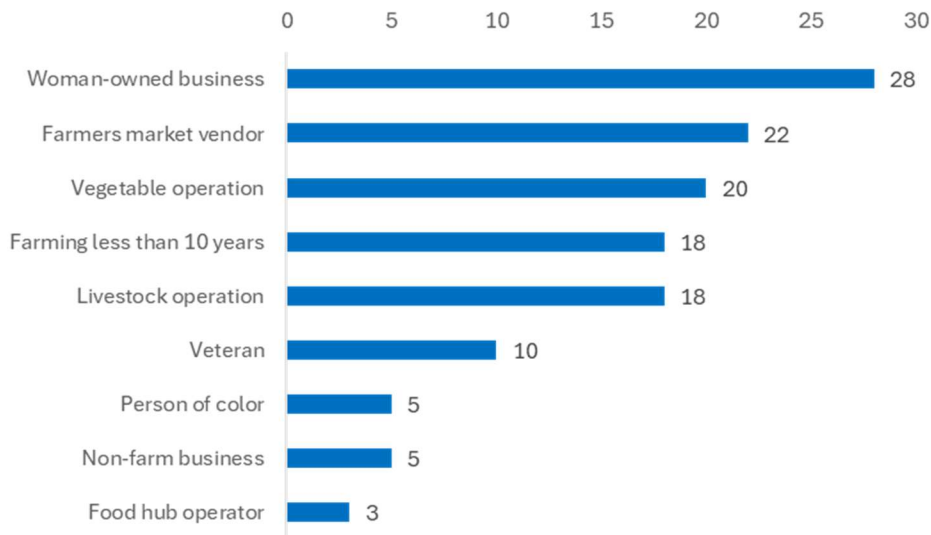
Extension sent a short 5-minute pulse survey by email to 206 emails for growers who sold to MDA Farm to School grantees, and whose emails the team could identify. Fifty-nine of the 206 responded, for a 29% response rate.

The brief survey asked for limited information about their operations, challenges, and benefits of selling to schools, and interest and ability in scaling up school sales.



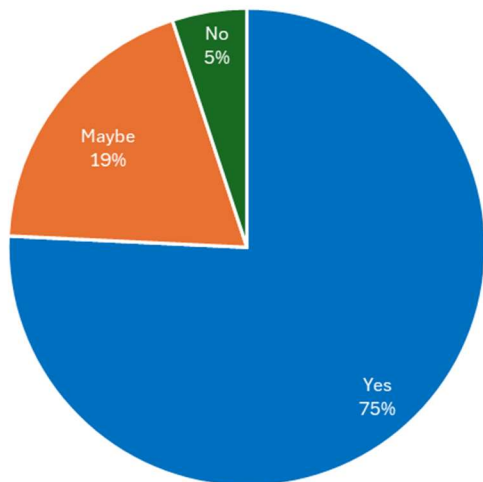
Looking at self-identifications of the producer respondents, a sizable percentage described their businesses as woman-owned, selling at farmers markets, and as vegetable operations. Eighteen of the respondents were livestock operators (Figure 10).

Figure 10: Number of respondents by identification



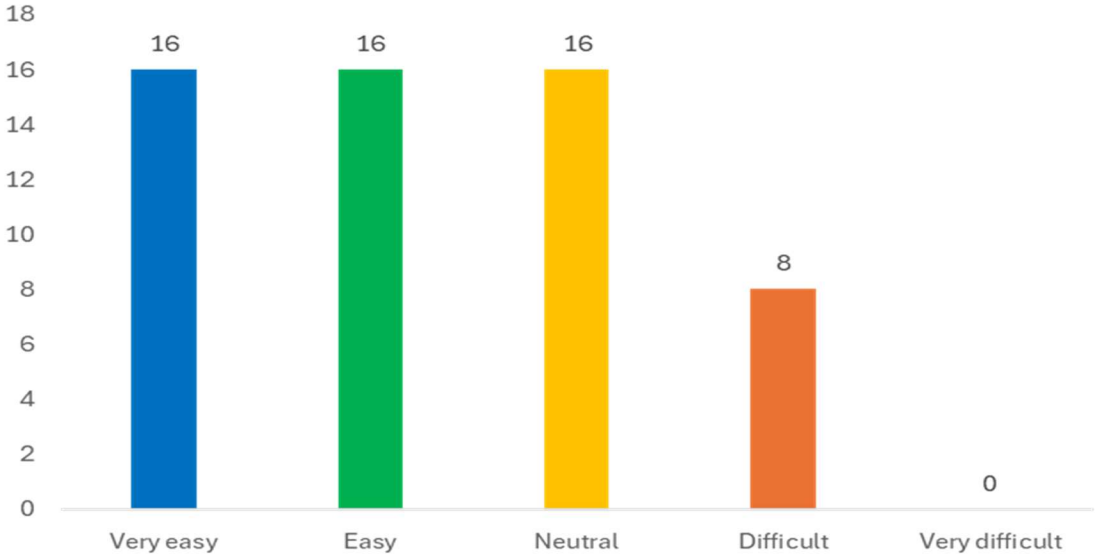
Most respondents are interested in increasing sales to schools, with three-quarters of respondents indicating they would be interested in increasing sales to schools in the next 12 months (Figure 11).

Figure 11: Interest in increasing sales to schools



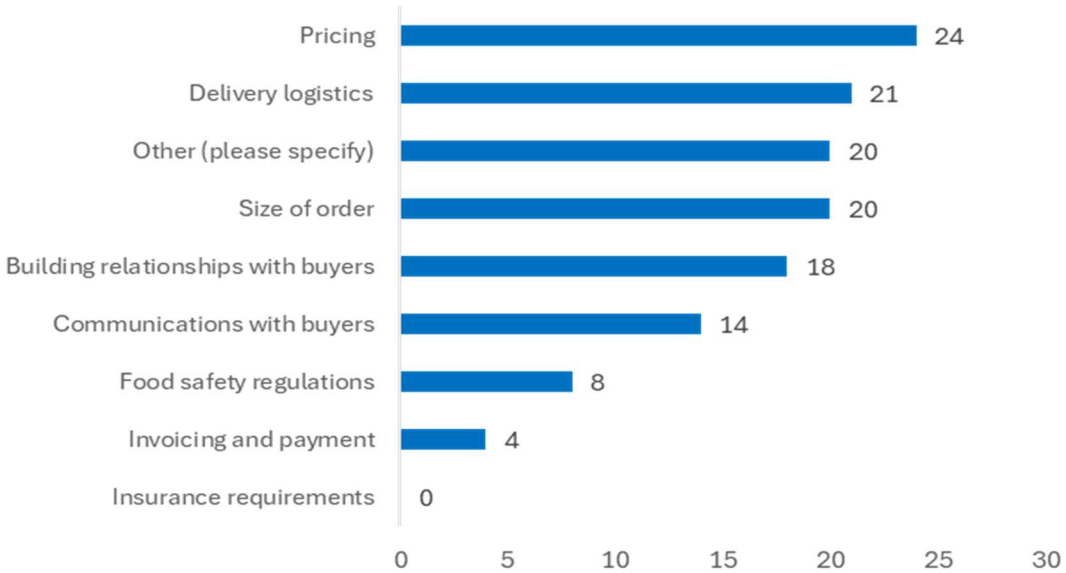
Many respondents indicated the ability to increase supply of products to schools, with 85% of responses indicating increasing supply of product to schools would be very easy, easy, or neutral. Eight respondents indicated scaling up would be difficult (Figure 12).

Figure 12: Number of respondents by level of difficulty to increase products



The survey asked participants to select their top three challenges selling to schools from a list of options. Responses mirrored the previous round of producer surveys, with respondents indicating their biggest challenges were pricing, logistics, and size of order. Write-ins referenced seasonality, flexibility, cost, and communication, as well as labor challenges on both sides: growers and schools. These points were echoed in the open-ended comments about how to make selling to schools more attractive. Comments addressed cost and funding, logistics and delivery, communication and building relationships with buyers.

Figure 13: Number of respondents by top three challenges of selling to schools



The survey also asked what changes would make selling to schools more attractive. Responses spanned a range of areas, including many addressing the barriers above: cost, communication, and logistics. Several growers noted the challenge of timelines and lack of flexibility: schools can have limited storage space and are often not able to change menus to accommodate changing dates of when products are ready. The need for labor and storage support were also noted: “Proper storage facilities for produce. If a crop is early and the school cannot menu right away, the cost of finding/paying for storage is all on the grower. If the crop spoils before the school can use it, the loss is all on the farmer.” Others noted the need for increased storage and processing: “...there need to be 4 players involved; grower, storage, processor, school.”

Connections and communication were another key theme. Support building connections and communicating about available products was noted: “an easier way for buyers to communicate directly with farms to find out what is currently available” and “connections with the right people.” Comments noted the complexity of both finding connections and building relationships. The realities of seasonality and planning were also mentioned, as growers plan what they are growing far in advance and some expressed desire to plant specifically for schools. “Having an understanding of things [schools] are looking for” and “communication long before the season begins” would help respondents plan for school sales.

Positive Impacts

Respondents were asked in an open-ended format what positive impacts they have had selling to schools. The most common comments surrounded values alignment, community, and quality. There were also a variety of comments regarding profitability, logistics, and preferred product sales.

Values alignment was referenced in a variety of ways, with growers indicating they appreciated providing quality products to kids in their community.

Profitability was also mentioned, with order sizes and wholesale sales noted as supporting their businesses bottom line: “A wholesale purchase is more lucrative for our farm than selling directly to consumers. Selling locally to schools is very rewarding - knowing the children in our community are getting more nutritional meals.”

Community and Relationship was an important positive impact for respondents. Respondents noted how they appreciated positive feedback and relationships within the schools. “We love the connection with the amazing, creative kitchen teams in each school. They’re so committed and innovative. Our asparagus ended up in the kindergarten math lesson, with bar graph results of a survey about whether kids liked the asparagus or even tried it. Positive reviews from the under-6 set!”

Other business support: A variety of other supports to their business were mentioned as positive impacts. Four responses noted moving a lot of product at one time, while others noted the impact of either trying out growing new things or moving distinct types of items through the school market than other markets (for example, schools purchasing smaller apples).

Conclusion

To date, the Minnesota Department of Agriculture’s Farm to School grant has reimbursed nearly \$1.6 million to local schools and had over \$3.1 million impact on the state economy from fiscal year 2023 grants. Schools purchased a wide range of products; in this round of funding, local protein was particularly popular. Both growers and school foodservice staff noted they would appreciate further support building connections between schools and producers. While farmers indicated a variety of challenges, from delivery and pricing to communication and relationship building, growers also see a variety of benefits to selling to schools and are interested in increasing sales to this market.