



## Farmers' Market Hubs Sales Summary, 2018-2020

*Farmers' market and farmer sales*

The Farmers' Market Hub project got underway in 2018 with nine farmers' markets. The Cannon Falls, Chisago City, and Elk River markets did not continue throughout the entire project due to factors including staffing changes and changes in priorities for these city-run markets. In 2020 the project operated with seven market hubs, including one combination of Wabasha and Lake City markets. The locations of the markets varied widely in terms of population and wealth (Table 1.)

<b>Market</b>	<b>City population (2018)</b>	<b>County population</b>	<b>Median household income in county</b>	<b>Poverty rate (% of total population)</b>	<b>Poverty rate of children under 5 yrs</b>
Aitkin	2,001	15,834	\$49,351	12.2	22.7
Cannon Falls	4,065	46,246	\$66,800	9.3	13.2
Chisago City	5,165	56,579	\$83,464	6.2	7.3
Cook	563	199,759	\$55,646	14.1	18.7
Elk River	24,845	95,957	\$96,210	5.5	4.5
Grand Rapids	11,222	45,141	\$55,139	12.2	14.9
Red Wing	16,414	46,246	\$66,800	9.3	13.2
Richfield	35,982	1,245,837	\$78,167	10.4	13.1
Rochester	116,961	154,809	\$76,951	8.4	10.1
Wabasha/Lake City	7,608	21,537	\$65,226	7.7	7.5

Source: U.S. Census, census.gov

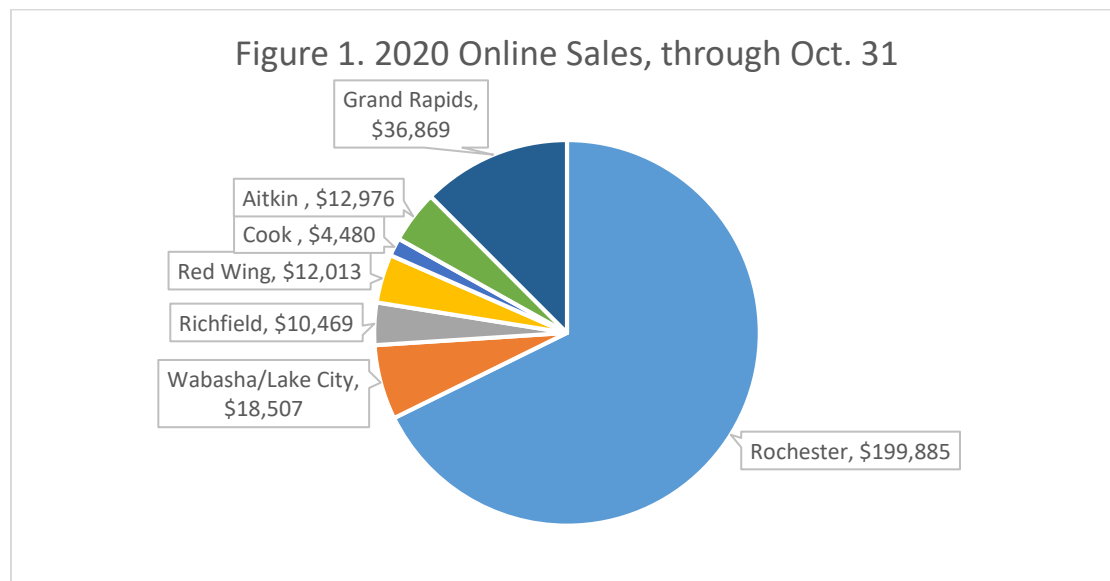
The original premise of the Farmers' Market Hub project was that existing farmers' markets could serve as aggregation and distribution sites for farmers' products, operating at a very low overhead cost with portable and temporary equipment. The proposed benefits of this model:

- Smaller-scale farmers could pool their products to reach local institutional buyers such as schools, hospitals, and care facilities.
- Farmers were already attending farmers' markets as vendors so this model would not add much to their transportation or other marketing costs.

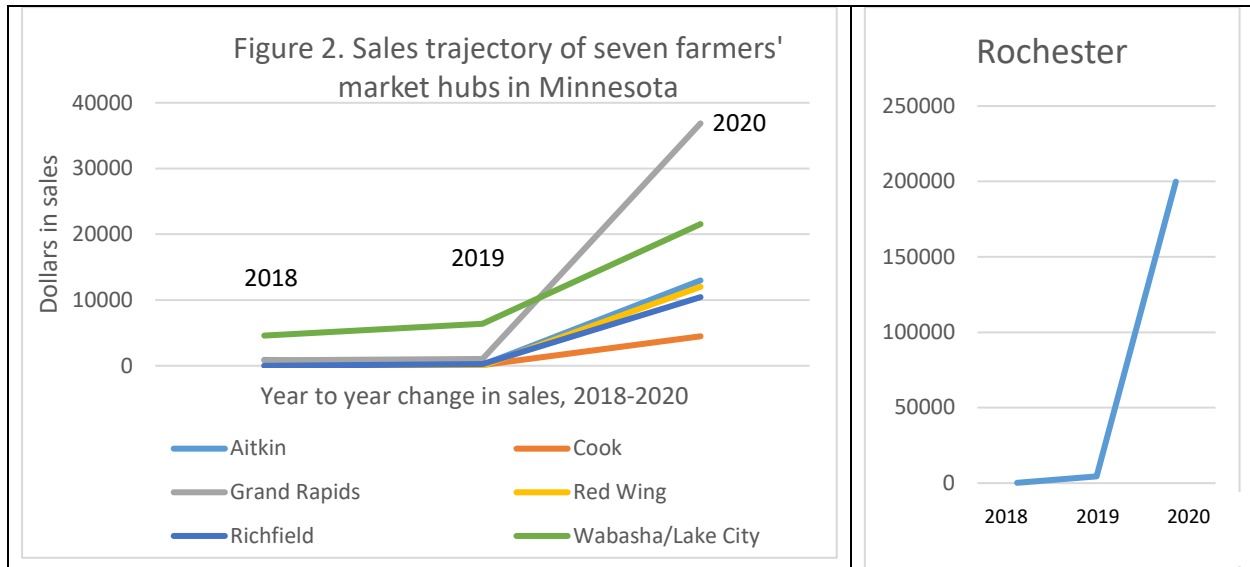
- Potential buyers would be willing to buy local product from the farmers’ market, a single licensed entity; where they might be reluctant to purchase from several individual farmers.

The arrival of COVID-19 in early 2020 spurred the markets to pivot from a focus on wholesale sales to local institutions, to a focus on household consumers. The opportunity to order local products online and pick them up, often in a drive-through lane, at the farmers’ market proved attractive to many consumers. This retail pivot resulted in a large increase in sales through the market hubs in 2020 (Table 2, Fig. 1.)

<b>Table 2. Summary of sales data from market hubs, 2018 through 2020</b>			
<b>Market</b>	<b>2018 \$</b>	<b>2019 \$</b>	<b>2020 \$</b>
Aitkin	902	134	12,976
Cannon Falls	435	50	0
Chisago City	1,968	2,257	0
Cook	0	108	4,480
Elk River	1,000	0	0
Grand Rapids	829	1,023	36,869
Red Wing	0	0	12,013
Richfield	0	250	10,439
Rochester	215	4,387	199,885
Wabasha/Lake City	4,590	6,387	18,507
<b>TOTALS</b>	<b>9,939</b>	<b>14,611</b>	<b>295,199</b>



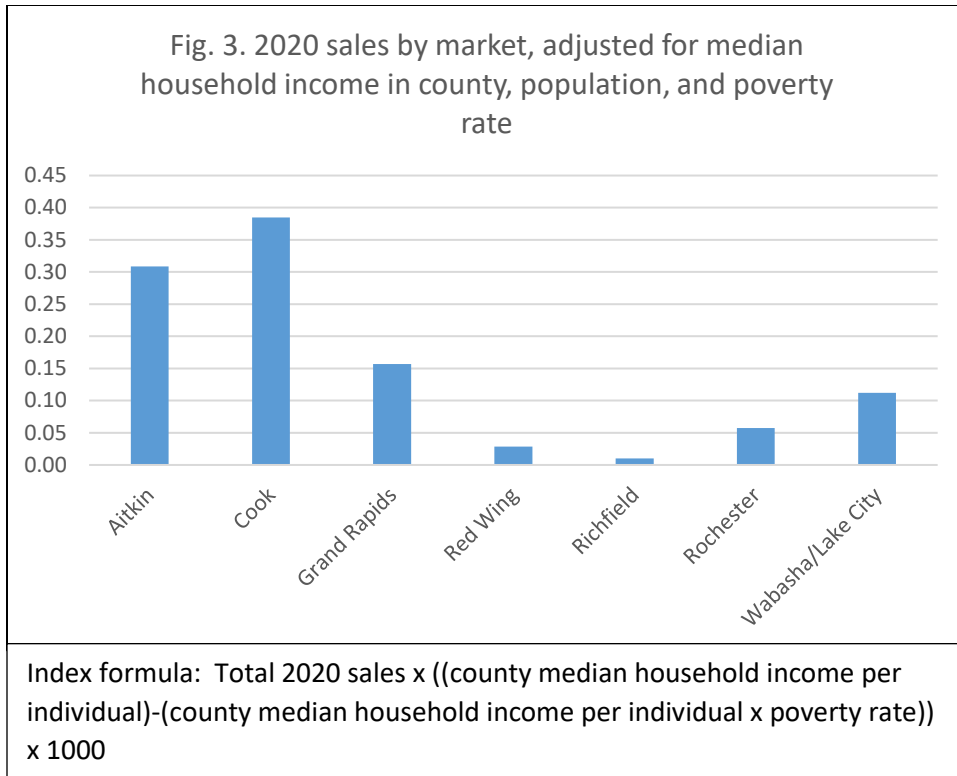
The sales trajectory from 2018 through 2020 at these farmers' markets reflects groundwork that was painstakingly laid in the first two years of the project without very many sales to show for it (Figure 2.) There was a lot of effort initially put into resolving regulatory questions associated with the temporary and portable nature of the aggregation sites, training managers, and getting both managers and vendors familiar with the online ordering system. Funding from outside of the markets themselves was essential during this start-up period. The work in 2018 and 2019 resulted in the markets being well-positioned in early 2020 to make that pivot to retail sales.



The large increase in hub sales in 2020 came with an increase in demand for manager time, thus complicating predictions of the sales volume required for hubs to be self-sustaining. Discussion is still developing around questions of the value of the hubs to communities and farmers, and the potential for ongoing subsidies to stabilize their operation. Part of that discussion is the value of farmers' markets for administering hunger relief programs in their communities.

The markets in smaller communities had less capacity to generate enough income through sales to fully support their manager at a fair wage, but conversely showed higher utilization of the market by their community when total sales were adjusted based on population, median household income per capita, and poverty rate in the surrounding county (Figure 3.)

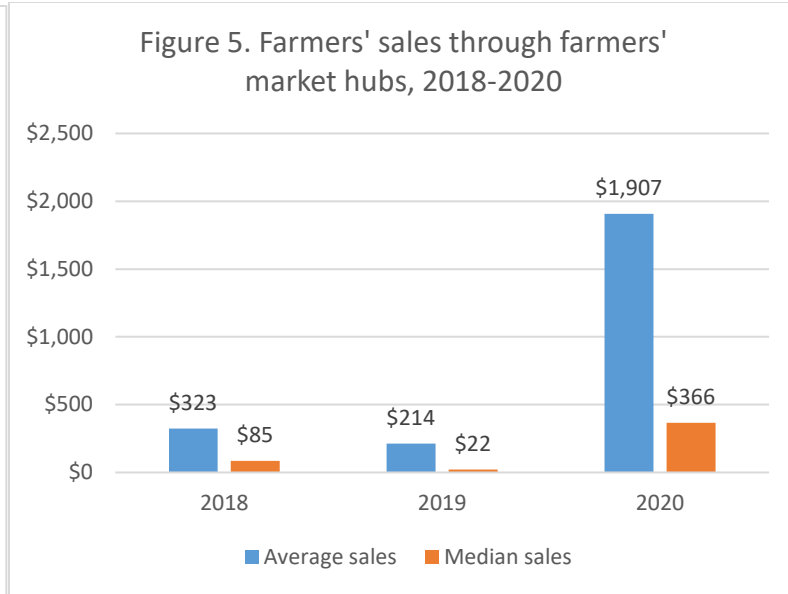
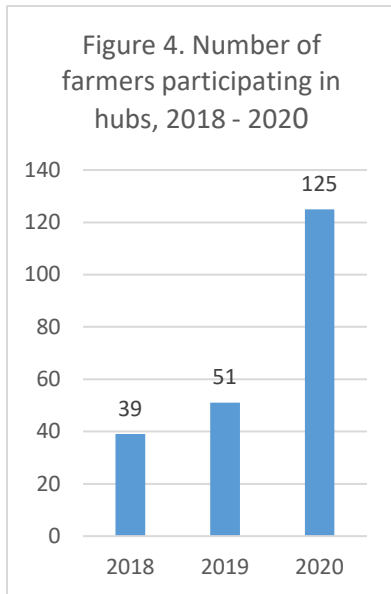
Minnesota Department of Agriculture opened its New Markets Cost-Share program to farmers' markets that are Minnesota Grown members for FY 2020-2021 beginning July 1, 2020. Several of the markets involved in this study made use of that cost-share program to augment their income from mark-up added to products sold through the hub.



## How did the farmers fare?

The number of farmers involved in hub sales increased from 39 in 2018 to 125 in 2020 (Fig. 4.) Average sales per farmer were lower in 2019 than in 2018 due to a combination of factors. The main two factors were staff turnover at several farmers' markets, which limited the markets' ability to work with buyers; and a poor growing season in 2019 that limited product availability for many farmers.

In 2020, though, primarily due to the pivot to retail sales, the number of farmers selling through hubs more than doubled and average annual sales per farmer increased approximately 7-fold over the 2018-2019 average (Fig. 5.)



Numbers in figures 4 and 5 were calculated by Ryan Pesch, U of MN Extension, from 2020 Local Line sales data from all participating markets in 2020.

Financial modeling by Ryan Pesch, U of MN Extension, suggested there was potential for farmers to improve their gross margin over marketing costs on farmers' market sales by participating in hub sales in addition to regular farmers' market sales (Figure 6.) The amount of gross margin improvement depends on both the farmer's amount of sales through the hub, and the farmer's cost to participate in hub sales.

For more detail on analyses conducted by Ryan Pesch, see reports and webinar recordings available on the Farmers' Market Hub website: <https://farmersmarkethub.org/what-we-learned>

Figure 6.

<b>SCENARIO: FARMER PAYS FEES</b>				
	FM no agg	FM with agg	FM with agg	FM with agg
Sales	\$ 3,988	\$ 4,088	\$ 4,488	\$ 4,988
Aggregation sales		\$ 100	\$ 500	\$ 1,000
<b>Costs per trip:</b>				
Travel (RT miles)	90	90	90	90
Travel time (hrs)	1.5	1.5	1.5	1.5
Selling time (hrs)	6.5	6.5	6.5	6.5
Mileage cost	\$ 49	\$ 49	\$ 49	\$ 49
Travel time cost	\$ 23	\$ 23	\$ 23	\$ 23
Selling time cost	\$ 98	\$ 98	\$ 98	\$ 98
No of trips	14	14	14	14
Cost per season	\$ 2,367	\$ 2,367	\$ 2,367	\$ 2,367
<b>Annual Costs</b>				
Supplies	\$ -	\$ -	\$ -	\$ -
Market fees	\$ 90	\$ 90	\$ 90	\$ 90
<b>Aggregation fees</b>	\$ -	\$ 14	\$ 70	\$ 140
Total Costs	\$ 2,457	\$ 2,471	\$ 2,527	\$ 2,597
<b>Gross Margin</b>	<b>38%</b>	<b>40%</b>	<b>44%</b>	<b>48%</b>

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Local Line data from 2018 through 2020 were used to test Ryan Pesch’s modeling regarding gross margin and to create a tool for farmers to use to test the value of sales through a farmers’ market hub to their own operation (Table 3.) This tool is available as an Excel spreadsheet for download at <https://farmersmarkethub.org/what-we-learned>.

Data from actual farmer sales across all markets in 2020 used to calculate gross margins at three levels of hub sales suggests that participation in farmers’ market hubs can indeed be a net gain for farmers.

Table 3. Farmers' Market Hub: Annual Farmer Income and Costs					
Line item	Category	FM sales, in-person only	Farmers' market in-person sales plus hub sales		
			Low \$ hub sales	Medium \$ hub sales	High \$ hub sales
	INCOME				
A	In-person sales	\$3,988	\$3,988	\$3,988	\$3,988
B	Hub sales	\$0	\$214	\$1,060	\$1,907
C	Total farmers' market sales	\$3,988	\$4,202	\$5,048	\$5,895
	EXPENSES				
	Base cost of farmers' market participation:				
D	Travel (Round-trip miles)	90	90	90	90
E	Travel time (Hours)	1.5	1.5	1.5	1.5
F	Set-up, Selling, and Pack-up time (Hours)	6.5	6.5	6.5	6.5
G	Mileage \$ @ 57.5	51.75	51.75	51.75	51.75
H	Travel time \$ @ \$15/hr	22.5	22.5	22.5	22.5
I	Selling time \$ @ \$15/hr	97.5	97.5	97.5	97.5
J	Farmers' market daily stall fee	10	10	10	10
K	Cost to attend a market day	181.75	181.75	181.75	181.75

L	Number of trips to market	14	14	14	14
M	Annual market fee	75	75	75	75
N	Farmers' market attendance cost per season	2619.5	2619.5	2619.5	2619.5
	Cost of Hub participation:				
O	# items ordered online per hub sales day	0	3	11	19
P	Prep time per item (hours)	0	0.08	0.08	0.08
Q	Online orders prep time per hub sales day (hours)	0	0.24	0.88	1.52
R	Marketshare/wholesale prep per hub sales day (hours)	0	0.25	0.5	0.75
S	# of market days with hub sales	0	14	14	14
T	Hub sales all prep time \$ @ \$15/hour	0	102.9	289.8	476.7
U	Other Hub sales \$ cost	0	14.98	74.2	133.49
V	Total Hub participation cost	0	117.88	364	610.19
W	Total costs to participate in market + hub	2619.5	2737.38	2983.5	3229.69
X	Gross Margin over Marketing Costs	34%	35%	41%	45%
<p>Numbers in this table are based on financial modeling by Ryan Pesch, U of MN Extension and data from Farmers' Market Hub project, 2018 - 2020.</p> <p>Data sources:</p> <p>Row A: Ryan Pesch</p>					

Row B: Data from Farmers' Market Hub study in 2018-2020 as calculated by Ryan Pesch; low = 2019 average sales by 51 farmers, high = 2020 average sales by 125 farmers  
 Row C: Row A + Row B  
 Row D: Ryan Pesch  
 Row E: Ryan Pesch  
 Row F: Ryan Pesch  
 Row G: Row D x IRS mileage rate for 2020  
 Row H: Row E x \$15/hour wage  
 Row I: Row F x \$15/hour wage  
 Row J: Grand Rapids Farmers' Market stall fee  
 Row K: Sum of Rows G + H + I + J  
 Row L: Ryan Pesch  
 Row M: no source  
 Row N: (Row K x Row L) + Row M  
 Row O: Calculated from Row B figures, average \$/order, and average number of items/order across all hub markets in 2020. See downloadable Excel tool for detail.  
 Row P: Estimated from vendor experience in 2020  
 Row Q: Row O x Row P  
 Row R: no source  
 Row S: Ryan Pesch  
 Row T: (Row Q + Row R) x Row S x \$15/hour  
 Row U: Row B x 0.07. In this example the farmer chooses to absorb half of the market's 14% mark-up on products, so it cost the farmer 7% of their hub sales. There were no other participation fees in this example.  
 Row V: Row U + Row T  
 Row W: Row N + Row V  
 Row X: (Row C – Row W)/Row C

As this project is concluding after three years of work, the farmers' markets and farmers involved are in the process of using analyses of data collected to make decisions about their hub participation in 2021 and beyond.