

# **MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA**

**MAY 2022**



## **Staff Paper 23-01**

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April 2023

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# MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA

MAY 2022

Corey Freije<sup>1</sup>

## Introduction

This study categorizes and analyzes hauling charges based on state, county, and producer size groups for May 2022. The payroll data for 9,736 dairy producers who were associated with the Upper Midwest Federal Milk Order were examined<sup>2</sup>. The Federal Order 30 Market Administrator's producer database allows options for handlers to report a line item fee for hauling that can include, but is not limited to, stop charges, fuel charges, or a flat fee. Some handlers will do a combination of charges necessitating some calculations to arrive at a total hauling charge from the database.

**Table 1**

### Average Hauling Charges for the Marketing Area for May

Statistic	2022	2021
Producer Deliveries (pounds)	4,571,925,421	3,102,739,088
Total Hauling Charges	\$ 18,986,472.21	\$ 10,021,468.89
Weighted Average Charges (per cwt.)	\$ 0.4153	\$ 0.3230

A flat fee structure leads to a decreasing average hauling charge when viewed on a per hundredweight basis. The possibility also exists that the hauling charge relationship for large producers may differ on a handler by handler basis. This relationship may mean the producer pays all charges external to the handler's payroll or may haul their own milk. Previous analysis has indicated that hauling charges are a function of producer pounds, the farm's distance to plants, the farm's distance to population centers, competition among handlers, and the concentration of dairy farms in the local market.

<sup>1</sup> The author, Dr. Corey Freije, is an Agricultural Economist with the Market Administrator's Office, Minneapolis, Minnesota.

<sup>2</sup> Changes were made in the methodology of this paper in 2011. The method used prior to 2011 would have resulted in an average hauling charge for 2022 of \$0.6177 per cwt., compared to \$0.5087 for 2021. These values are possible to calculate using data from Table 3. Data from 2011 to present are aggregated at the farm level and restricted to States within Federal Order 30 resulting in lower farm counts compared to earlier analysis. The hauling charges in Table 1 are weighted by producer and state.

## Analysis by Size Group

Table 2 presents the May 2022 data for each of ten size groups. Skewness dominates the results in Table 2, with nearly 65% of the milk produced by 10% of the farms. In addition, these largest categories of farms pay 57% of the total hauling charges. Chart 2, on Page 6, shows the inverse relationship between average pounds of production and average hauling charges for each size category.

**Table 2**  
**Average Producer Delivery, by Size Range, for May 2022**

Size Range	Simple Average Hauling Charges	Total Hauling Charges	Production	Number of Farms	Producer Average Monthly Delivery	Weighted Average Hauling Charge
(pounds)	(\$ per cwt.)	(\$)	(pounds)		(pounds)	(\$ per cwt.)
Up to 49,999	0.9250	416,528.92	50,924,024	1,829	27,843	0.8179
50,000 to 99,999	0.5582	827,013.65	150,221,776	2,030	74,001	0.5505
100,000 to 249,999	0.4939	2,252,500.10	456,376,926	2,921	156,240	0.4936
250,000 to 399,999	0.4833	1,337,063.50	278,396,789	891	312,454	0.4803
400,000 to 599,999	0.5053	1,396,144.96	276,087,530	569	485,215	0.5057
600,000 to 999,999	0.4607	1,860,663.22	404,510,251	530	763,227	0.4600
1,000,000 to 1,499,999	0.4306	1,621,714.83	383,406,723	313	1,224,942	0.4230
1,500,000 to 2,499,999	0.4092	2,335,524.37	569,677,875	294	1,937,680	0.4100
2,500,000 to 4,999,999	0.3311	2,552,972.85	767,180,437	220	3,487,184	0.3328
5,000,000 or more	0.3497	4,386,345.81	1,235,143,091	139	8,885,922	0.3551
<b>Total or Average</b>	<b>0.5759</b>	<b>18,986,472.21</b>	<b>4,571,925,421</b>	<b>9,736</b>	<b>469,590</b>	<b>0.4153</b>

## Analysis by State

Table 3 represents the May data for each state comprising the order. Analyzing hauling charges by state has previously led Federal Order 30 staff to hypothesize that non-scale factors affect hauling charges. These include distance to plants and population centers, competition among handlers, along with the predominance of dairying in a market. These factors have been tested and their relevance supported in earlier papers available here: [https://www.fmna30.com/Staff\\_Papers.html](https://www.fmna30.com/Staff_Papers.html).

**Table 3**  
**Average Producer Delivery, by State, for May 2022**

State	Simple Average Hauling Charges	Total Hauling Charges	Production	Number of Farms	Producer Average Monthly Deliver	Weighted Average Hauling Charge
	(\$ per cwt.)	(\$)	(pounds)		(pounds)	(\$ per cwt.)
Illinois	0.9456	1,078,597.11	141,938,877	414	342,848	0.7599
Iowa	0.7659	2,582,409.08	476,839,034	835	571,065	0.5416
Michigan UP	1.1851	88,702.25	11,877,057	27	439,891	0.7468
Minnesota	0.5324	3,623,064.82	876,382,250	2,176	402,749	0.4134
North Dakota	1.4460	168,590.92	20,667,386	36	574,094	0.8157
South Dakota	0.7922	1,594,995.05	351,756,116	158	2,226,305	0.4534
Wisconsin	0.5268	9,850,112.98	2,692,464,701	6,090	442,112	0.3658
<b>Total or Average</b>	<b>0.8849</b>	<b>18,986,472.21</b>	<b>4,571,925,421</b>	<b>9,736</b>	<b>469,590</b>	<b>0.4153</b>

As seen in Table 3, North Dakota has the highest simple average hauling charge. The state producers have fewer plants and less handler competition. Minnesota and Wisconsin in contrast have low average hauling charges with a high number of farms generally in close proximity to high demand areas. A topic of interest is how the average pounds in this table do not correlate as well as Table 2 with average hauling charges, implying additional factors determine a farmer's hauling charge.

On the following page, Table 4 shows the May diesel fuel price in relation to the May average hauling charges. Additionally, the table shows the percentage change from the previous year for both the price of fuel and average hauling charges. Both levels are above historical averages, with the hauling charges showing less fluctuation and a dampened overall increase when compared to the more volatile fuel price. That volatility is evident in the large positive and negative percentage changes in fuel prices from year to year. In contrast, the percentage changes in the average hauling charge is much smaller. Given the handlers' tendency to subsidize hauling charges, this smaller volatility indicates a strong tendency to resist passing through the increased hauling costs.

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**Table 4****Midwest Retail Fuel Price and Average Hauling Charges <sup>3</sup>**

Year	May Fuel Price	Change from Previous Year	May Average Hauling Charges	Change from Previous Year
	(\$ per gallon)	(%)	(\$ per cwt)	(%)
2012	3.877	- 3.10	0.3328	10.68
2013	3.907	0.77	0.3183	- 4.36
2014	3.910	0.07	0.3280	3.05
2015	2.764	- 29.31	0.3131	- 4.54
2016	2.282	- 17.44	0.3263	1.44
2017	2.494	9.29	0.3409	4.48
2018	3.179	27.47	0.4793	40.59
2019	3.049	- 4.09	0.5015	4.63
2020	2.24	-26.53	0.4985	-4.74
2021	3.16	41.07	0.5087	2.04
2022	5.32	68.35	0.6177	21.43

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Chart 1 on the next page shows that almost 80% of the milk delivered on Federal Order 30 was from Wisconsin and Minnesota. The other states on the order each had 10.4% or less of the delivered milk. This predominance for Wisconsin and Minnesota indicates that their weighted averages will pull the overall average for the order down relative to North and South Dakota. Wisconsin and Minnesota not only have most of the milk production, but also have close proximity to the majority of the population centers and processing plants.

Chart 2 on Page 6 shows the milk production percentage for each size class and also the percentage of total hauling charges paid by each size class. For the six smallest size classes, the percentage of hauling charges is greater than the percentage of total production. For the latter four classes, their percentage of hauling charges is either about the same, or smaller than, their percentage of production. The most common explanation for this distribution of charges is that hauling costs are higher for smaller farms, given the increased number of stops in order to fill out a load. Chart 3, on Page 8, builds on Chart 2's size range distribution to show that average hauling charges and average milk production are inversely related.

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<sup>3</sup> The hauling charges presented are a simple average by state that is then weighted by the state milk production to generate a weighted average for the Federal order. Being based on a state simple average increases the likelihood that it approximates a typical dairy farmer's average hauling charge over an average weighted by every producer's production.

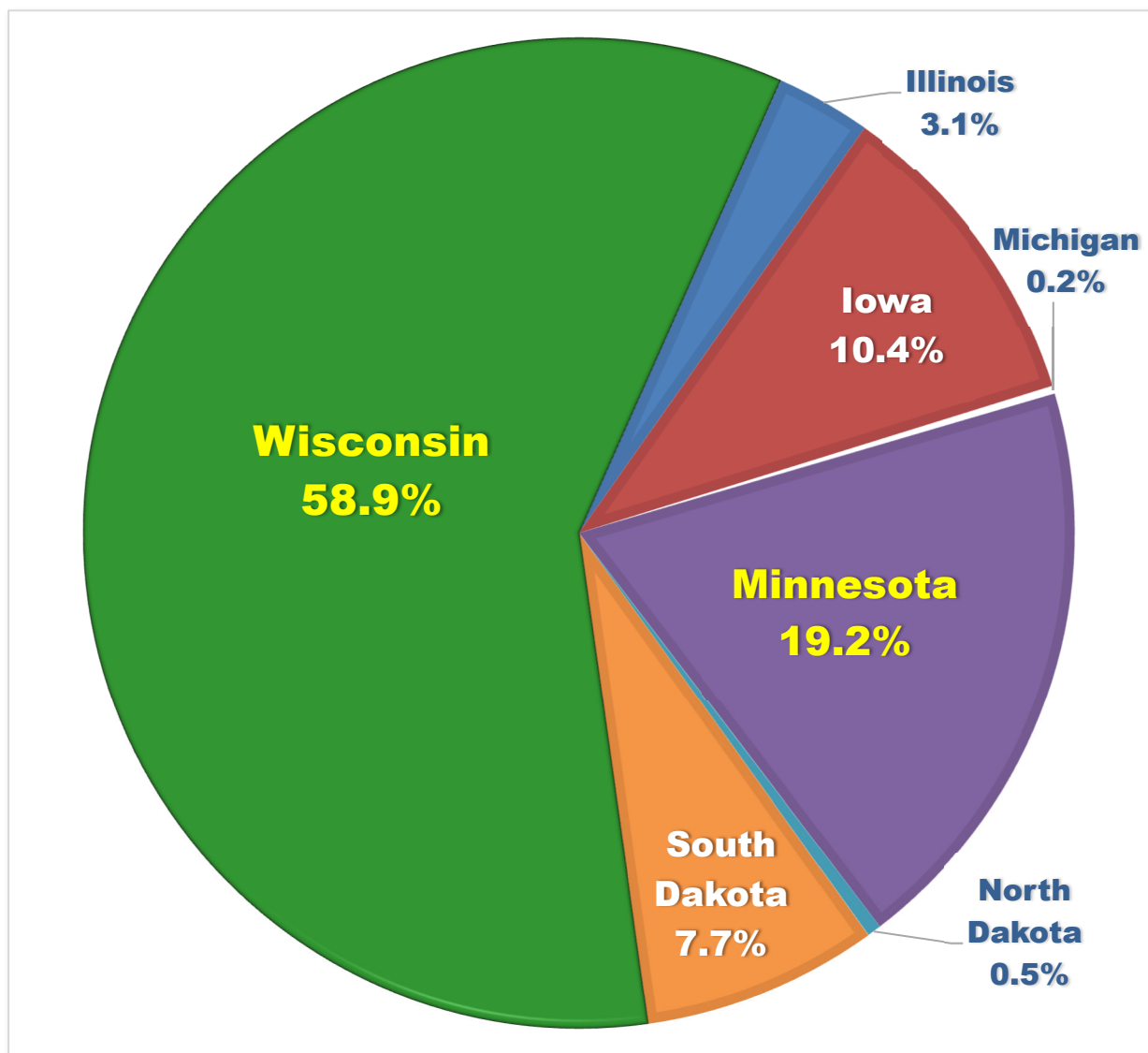


## Percentage of Milk Deliveries by State

In May 2022, dairy producers from three states delivered the majority of the milk associated with the Upper Midwest Order. Wisconsin producers delivered the largest volume of any of the states by supplying 58.9% of the total milk volume associated with the market. Producers from Minnesota and Iowa were second and third, respectively, in milk volume supplied to the order.

**Chart 1**

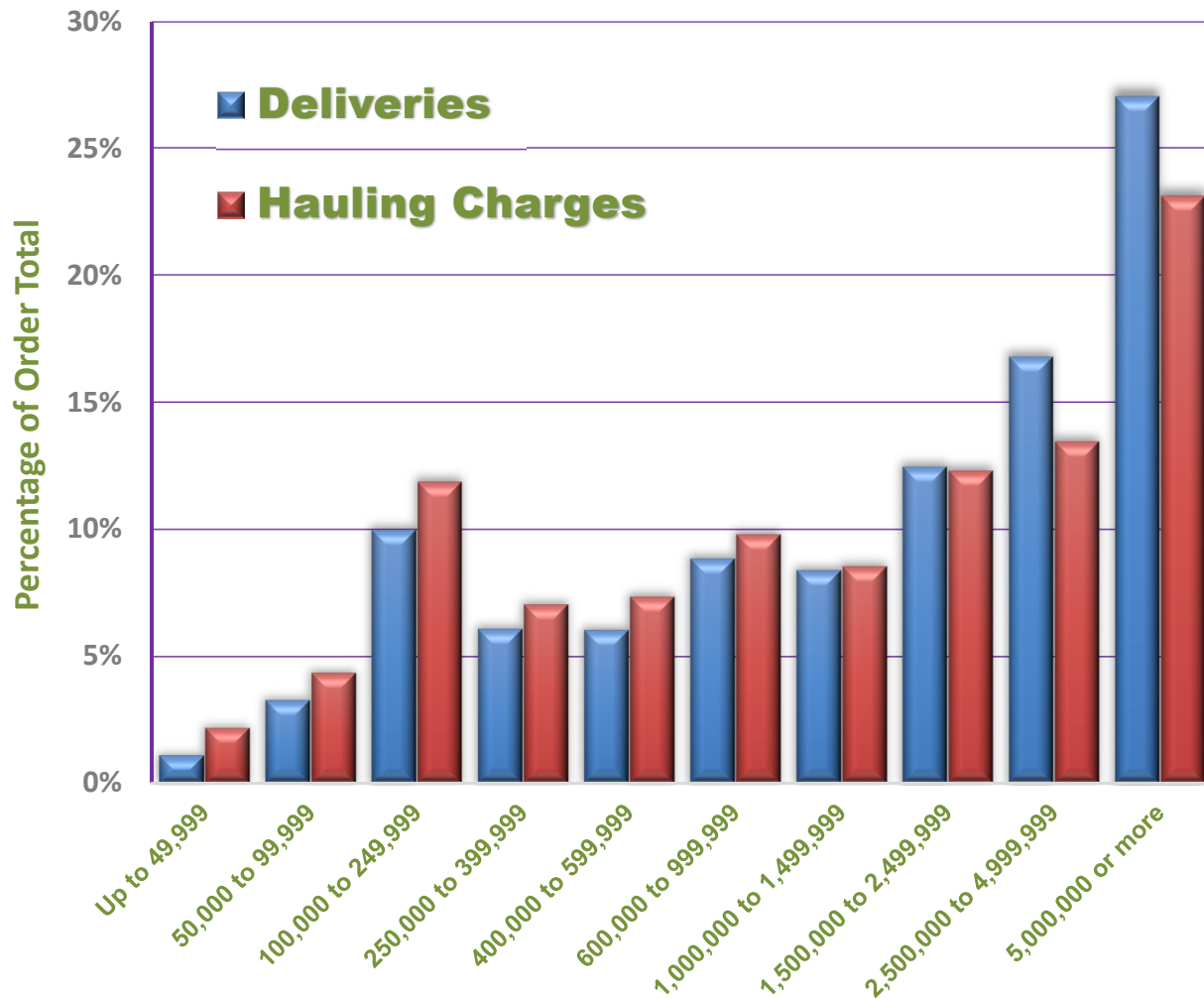
**Percentage of Delivery Volume, by State, for May 2022**



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**Chart 2**

**Percentage of Hauling Charges and Producer Deliveries, for May 2022**



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**Average Milk Hauling Charges by Size Range of Producer Delivery**

The data shown in Table 5 indicates that there are several other factors that contribute to fluctuating hauling charges. The aforementioned relationship between farm location and distances to competing dairy plant manufacturing operations does not explain all of the variation in average hauling charges. This study found that even though a specific dairy producer may be located a very long distance from the Upper Midwest market's largest fluid milk disposition area, it does not necessarily mean that this producer will pay the market's highest rate per hundredweight for hauling. This study recognizes that other factors exist; including the fact that a dairy producer's herd size or milk volume influences the producer's cost of hauling.

Table 5 displays the market's dairy producers in ten size ranges, or producer milk volume categories. The numbers presented in Table 5 show a strong indication that as a producer's milk volume increases, the average hauling charge per hundredweight decreases.

**Table 5**  
**Average Hauling Charges, by Size Range and State, for May 2022**  
(Dollars per cwt.)

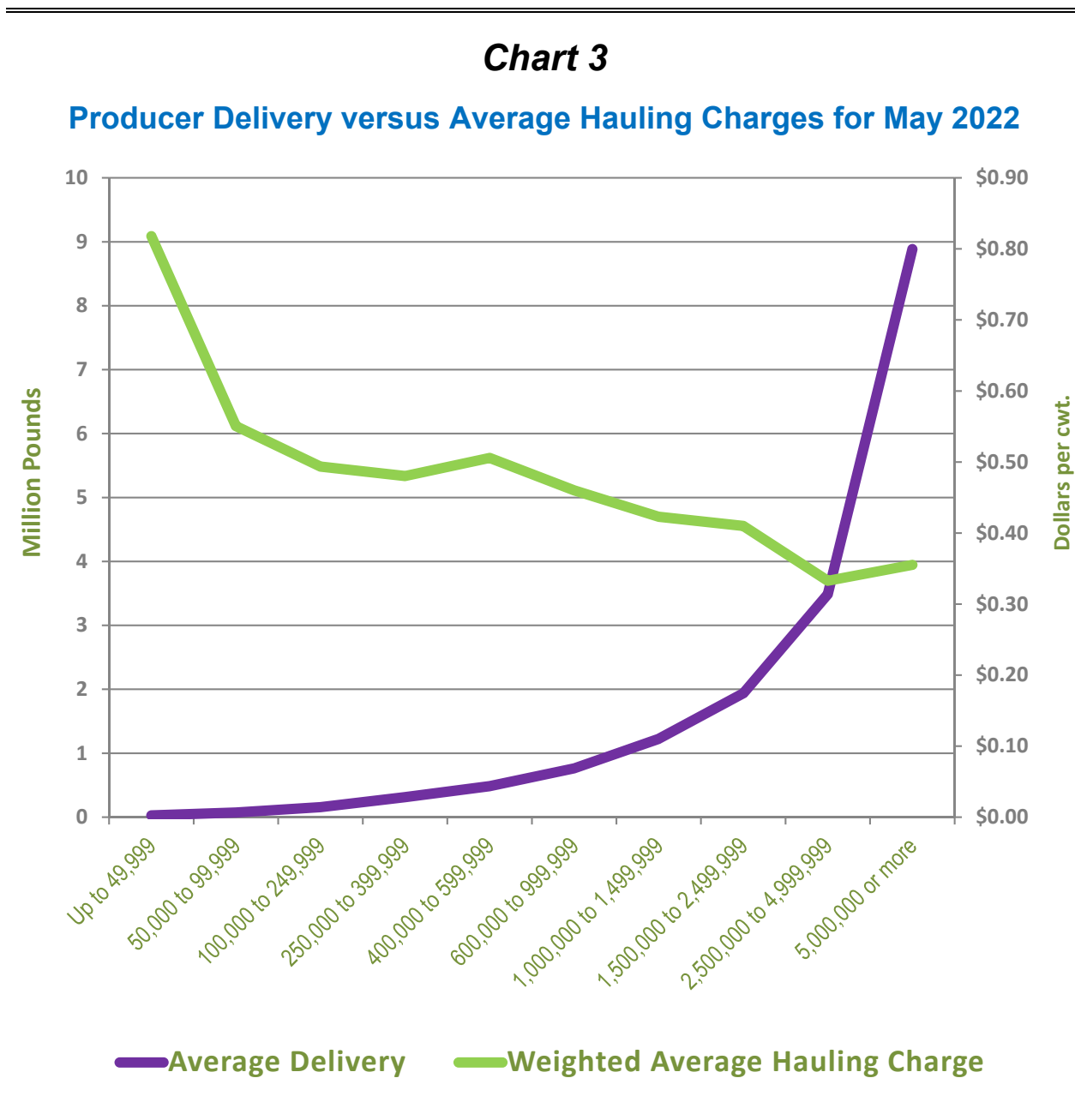
Size Range	Illinois	Iowa	Michigan	Minnesota	North Dakota	South Dakota	Wisconsin	Average
Up to 49,999	1.4637	1.0737	1.2928	0.8883	1.7813	1.7565	0.8750	0.9250
50,000 to 99,999	0.9314	0.8558	1.2831	0.5068	1.5777	0.9240	0.5069	0.5582
100,000 to 249,999	0.8227	0.7653	1.2398	0.4199	1.3806	0.9099	0.4441	0.4939
250,000 to 399,999	0.9084	0.5959	1.2928	0.3682	1.2883	0.6275	0.4443	0.4833
400,000 to 599,999	0.9652	0.6439	R	0.4168	R	0.5986	0.4497	0.5053
600,000 to 999,999	0.9164	0.6216	0.8619	0.4181	--	0.6691	0.4041	0.4607
1,000,000 to 1,499,999	0.8146	0.5569	R	0.3799	R	0.3846	0.4047	0.4306
1,500,000 to 2,499,999	0.7054	0.5486	--	0.4376	R	0.5041	0.3550	0.4092
2,500,000 to 4,999,999	R	0.5506	R	0.4389	0.6237	0.4845	0.2574	0.3311
5,000,000 or more	R	0.4361	--	0.3987	--	0.4419	0.2817	0.3497
<b>Average</b>	<b>0.7599</b>	<b>0.5416</b>	<b>0.7468</b>	<b>0.4134</b>	<b>0.8157</b>	<b>0.4534</b>	<b>0.3658</b>	<b>0.4153</b>

R = Restricted, fewer than three producers.      -- No producers.

The study acknowledges that there are several major factors causing differences in hauling charges between individual producer sizes. The most obvious factor responsible for influencing the producer's hauling rate per hundredweight, by herd size range, is that many Upper Midwest handlers use a fixed hauling charge, regardless of the volume of milk the particular producer is marketing. Therefore, as one of these producer's milk production increases, the hauling charge per hundredweight will automatically decrease. This increase / decrease relationship is apparent when examining most of the data in Table 5.

Further, this study finds that 78.1% of the producer milk is procured from Minnesota and Wisconsin. The study also finds that these two states have more small dairy producers. Many of these producers are located near multiple milk processors. Therefore, these producers may pay for shorter hauling distances, and their hauling charges on a per

hundredweight basis, therefore, are going to be less than similar size producers located in other parts of the market's procurement area. Chart 3 shows the average hauling charges, by size range, for all producer milk associated with the market for May 2022.



As mentioned above, one factor that contributes to varying hauling rate charges is the dairy producer's location in the market, or those areas possessing strong procurement competition among fluid dairy processors and/or cheese manufacturing plants. This factor is quite noticeable in the milkshed areas found in Minnesota and Wisconsin. The study finds that lower hauling charges in these areas reflect strong procurement competition accompanied by shorter hauling distances between dairy farm operations and dairy manufacturing plants.

## Average Milk Hauling Charges by State and County

In the Appendix is a list of average hauling charges by State and County. The counties with the highest average hauling charges were mainly located in northern Iowa and North Dakota. The study acknowledges that many of these counties lack multiple dairy plant operators and/or ample local competition for milk procurement. The dairy producers and plant operations found in these areas are geographically more spread-out compared to many dairy producers and plant operations in other counties within the marketing area. The added distance between these farms and plants raises the actual transportation cost for moving their milk to market.

As mentioned above, the vast majority of handlers on this market charge producers a flat hauling value, regardless of the size or volume of milk being marketed. Therefore, the lower the producer's milk production, the higher the average hauling charge on a per hundredweight basis. This study finds that many of these semi-remote counties do in fact lack a couple of these "large dairy farm" operations that would otherwise have decreased the county's average hauling rate considerably. Many of these smaller farms were located in these more remote counties possessing lower populations.

Many of the counties that had the lowest average hauling charges are geographically located in close proximity to large Class I fluid markets. Most of the counties with the lowest average hauling charges were found in areas with large numbers of dairy farm operations and/or within close proximity to multiple competing dairy manufacturers. Most of the counties with the lowest average hauling charges had several large dairy farm operations that helped to reduce the county's average hauling rate considerably.

## Analysis of Producers with Zero Milk Hauling Charges

A small percentage of producers on Federal Order 30 have zero hauling charges listed in handlers' payroll records. Reasons for this lack of deduction include use of waiving the hauling charge as a milk procurement tool, hauling for the producer may be self-funded separate from the handler, or the handler may pay for the hauling via a third-party hauler that is not reflected in the payroll records submitted to this office. Substantial anecdotal evidence indicates that the latter two situations mentioned account for nearly all the zero hauling deductions.

Tables 6 and 7 indicate that the producers with zero hauling charges are spread among all the size categories with more producers not paying hauling in the more plentiful small size categories.

The tables also indicate that more farms are charged no hauling in states with more dairy farms such as in Minnesota and Wisconsin. The overall average producer delivery for zero hauling charge producers greatly exceeds that of the larger dataset as shown in Table 3.

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**Table 6****Producers with Zero Hauling Charges, by Size Range, for May 2022**

Size Range	Production	Number of Farms	Producer Average Monthly Delivery
	(pounds)		(pounds)
Up to 49,999	4,795,020	198	24,217
50,000 to 99,999	6,766,378	95	71,225
100,000 to 249,999	12,816,955	79	162,240
250,000 to 399,999	9,467,094	30	315,570
400,000 to 599,999	8,921,245	19	469,539
600,000 to 999,999	29,298,976	38	771,026
1,000,000 to 1,499,999	39,844,881	31	1,285,319
1,500,000 to 2,499,999	74,839,085	38	1,969,450
2,500,000 to 4,999,999	182,389,502	51	3,576,265
5,000,000 or more	401,369,299	43	9,334,170
<b>Total</b>	<b>770,508,435</b>	<b>622</b>	<b>1,238,760</b>

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**Table 7****Producers with Zero Hauling Charges, by State, for May 2022**

State	Production	Number of Farms	Producer Average Monthly Delivery
	(pounds)		(pounds)
Illinois	20,501,772	14	1,464,412
Iowa	47,666,607	25	1,906,664
Minnesota	80,032,091	102	784,628
Wisconsin, North Dakota, South Dakota, and Michigan UP	622,307,965	481	1,293,780
<b>Total</b>	<b>770,508,435</b>	<b>622</b>	<b>1,238,760</b>

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## Effects of Zero Hauling Charges on Order-Wide Data

The dairy farms producing milk for which there is no deduction on the producer payroll accounted for 770,508,435 pounds in 2022. Recalculating the weighted average hauling charges, for the order as a whole, entails dividing the total hauling charges by the production on the order, less the production of the dairy farms with zero hauling charge. This recalculation is **\$18,986,472.21 / 3,801,416,986 \* 100 = \$0.4995**. The weighted average hauling charge per hundredweight increases from \$0.4153 to \$0.4995.

This procedure is repeated in Table 8 and Table 9 for the weighted average hauling charges, by scale and by state, using data from Tables 6 and 7.

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**Table 8**  
**Average Hauling Charges, by Size Range,**  
**with Zero Charges Removed, for May 2022**

Size Range	Total Hauling Charges	Production	Production Without Zeros	Weighted Average Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$ per cwt.)
Up to 49,999	416,529	50,924,024	46,129,004	0.9030
50,000 to 99,999	827,014	150,221,776	143,455,398	0.5765
100,000 to 249,999	2,252,500	456,376,926	443,559,971	0.5078
250,000 to 399,999	1,337,064	278,396,789	268,929,695	0.4972
400,000 to 599,999	1,396,145	276,087,530	267,166,285	0.5226
600,000 to 999,999	1,860,663	404,510,251	375,211,275	0.4959
1,000,000 to 1,499,999	1,621,715	383,406,723	343,561,842	0.4720
1,500,000 to 2,499,999	2,335,524	569,677,875	494,838,790	0.4720
2,500,000 to 4,999,999	2,552,973	767,180,437	584,790,935	0.4366
5,000,000 or more	4,386,346	1,235,143,091	833,773,792	0.5261
Total	18,986,472	4,571,925,421	3,801,416,986	0.4995

**Table 9**  
**Average Hauling Charges, by State, with  
Zero Charges Removed, for May 2022**

State	Total Hauling Charges	Production	Production Without Zeros	Weighted Average Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$ per cwt.)
Illinois	1,078,597	141,938,877	121,437,105	0.8882
Iowa	2,582,409	476,839,034	429,172,427	0.6017
Michigan	88,702	11,877,057	6,886,002	1.2882
Minnesota	3,623,065	876,382,250	796,350,159	0.4550
Wisconsin, North Dakota, and South Dakota	11,613,699	3,064,888,203	2,447,571,293	0.4745
<b>Total</b>	<b>18,986,472</b>	<b>4,571,925,421</b>	<b>3,801,416,986</b>	<b>0.4995</b>

## Summary

The average hauling distance to the point of delivery is normally highest in perimeter, remote and / or isolated counties. In many instances, the added cost required for hauling milk in these areas, combined with a lack of competition among milk procuring handlers, results in an increase in the average hauling charges. On the other hand, counties with the lowest average hauling charges tend to be located in areas with relatively high concentrations of dairy farms, combined with an adequate supply of milk procuring handlers.

This study revealed that a majority of handlers participating in the Upper Midwest Marketing Order charge their producers a flat hauling value, regardless of the producer's size or volume of milk being marketed. In each of these cases where the handler charges a flat rate, the hauling charge per hundredweight declines as the producer's milk volume increases. A specific county's average hauling charge can be greatly influenced by the county's composition of farm sizes.



Weighted average hauling charges are lowest for larger producers in states with a high concentration of milk processors and population centers. Hauling charges are highest for small producers at increased distances to processors and the effect is amplified if the concentration of farms is lower. These effects lead to larger charges for farmers in North Dakota, South Dakota, the Upper Peninsula of Michigan, and the distant counties in Minnesota and Wisconsin. Lastly, the weighted average hauling charges for Federal Order 30 show handlers passed on little of the recent changes in fuel costs to farmers.

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Illinois</b>	Adams	0.9209	0.6382
	Bond	0.8989	1.0258
	Boone	0.8151	0.6546
	Brown	R	R
	Carroll	0.6490	0.3420
	Champaign	R	R
	Clark	R	R
	Clay	R	R
	Clinton	0.9471	1.0509
	Cumberland	0.7841	0.7827
	De Kalb	0.5567	0.6260
	Douglas	0.9953	1.0345
	Effingham	0.7860	0.7881
	Fayette	0.9498	0.8932
	Franklin	R	R
	Fulton	R	R
	Hancock	R	R
	Iroquois	R	R
	Jackson	1.6588	1.1626
	Jasper	0.8012	0.7907
	Jo Daviess	0.5862	0.4335
	Kane	1.3031	0.8989
	Kendall	R	R
	Lake	R	R
	La Salle	R	R
	Livingston	1.1847	1.1593
	Logan	R	R
	McHenry	0.8839	0.7297
	McLean	R	R
	Macoupin	R	R
	Madison	0.8955	0.8923
	Marion	R	R
	Marshall	R	R
	Monroe	1.7337	1.7138
	Montgomery	0.9424	0.8955
	Moultrie	1.3549	1.3198
	Ogle	0.6040	0.5690
	Peoria	R	R
	Perry	R	R
	Piatt	R	R

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Illinois</b> <i>(continued)</i>	Pike	0.8293	0.8530
	Randolph	1.3561	1.3956
	Richland	0.9367	0.8434
	Rock Island	0.5182	0.7123
	St. Clair	1.2661	1.1886
	Shelby	R	R
	Stephenson	0.7280	0.4294
	Tazewell	1.0522	0.9532
	Washington	1.2109	1.3570
	Wayne	R	R
	Whiteside	1.5668	0.9627
	Will	R	R
	Williamson	R	R
	Winnebago	0.7781	0.6510
<b>Iowa</b>	Adair	R	R
	Allamakee	0.7417	0.7155
	Appanoose	R	R
	Benton	0.5124	0.7654
	Black Hawk	0.6257	0.5412
	Bremer	0.7799	0.4797
	Buchanan	1.0606	0.8332
	Butler	0.8301	0.6855
	Carroll	R	R
	Cedar	R	R
	Cerro Gordo	R	R
	Cherokee	R	R
	Chickasaw	0.8719	0.9639
	Clarke	R	R
	Clay	R	R
	Clayton	0.6358	0.4556
	Clinton	0.6938	0.5040
	Davis	0.5331	0.5897
	Decatur	R	R
	Delaware	0.7633	0.6007
	Des Moines	R	R
	Dubuque	0.7467	0.6027
	Emmet	R	R
	Fayette	0.7477	0.5970

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Iowa</b> <i>(continued)</i>	Floyd	0.9332	0.9291
	Franklin	R	R
	Grundy	R	R
	Hamilton	R	R
	Hancock	R	R
	Hardin	R	R
	Howard	0.9460	0.6774
	Humboldt	R	R
	Ida	R	R
	Iowa	R	R
	Jackson	0.8710	0.6778
	Jasper	1.4893	0.7106
	Jefferson	R	R
	Johnson	0.7800	0.7705
	Jones	0.7493	0.4475
	Kossuth	R	R
	Lee	1.0394	1.0375
	Linn	0.6662	0.5654
	Lucas	R	R
	Lyon	0.6417	0.4545
	Mahaska	0.4473	0.7194
	Marion	R	R
	Marshall	R	R
	Mitchell	1.0094	0.8706
	Montgomery	R	R
	Muscatine	R	R
	O'Brien	0.9714	0.3734
	Osceola	0.5010	0.5754
	Palo Alto	R	R
	Plymouth	R	R
	Pocahontas	R	R
	Pottawattamie	R	R
	Poweshiek	0.7333	1.2885
	Sac	R	R
	Scott	1.0640	0.8836
	Shelby	R	R
	Sioux	0.4890	0.4202
	Story	R	R
	Tama	R	R
	Van Buren	0.9848	0.8774

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State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Iowa</b> <i>(continued)</i>	Wapello	R	R
	Warren	R	R
	Washington	0.7112	0.6911
	Wayne	0.4559	0.4500
	Winnebago	R	R
	Winneshiek	0.8179	0.7726
	Woodbury	R	R
	Worth	1.6952	1.7331
<b>Michigan</b>	Delta	R	R
	Dickinson	1.2928	1.2928
	Menominee	1.1606	0.6863
<b>Minnesota</b>	Aitkin	R	R
	Becker	0.5115	0.3128
	Beltrami	R	R
	Benton	0.5085	0.5384
	Blue Earth	0.8181	0.3169
	Brown	0.3416	0.3232
	Carlton	0.8835	0.7565
	Carver	0.4003	0.3209
	Cass	1.0465	0.6430
	Chippewa	R	R
	Chisago	0.5725	0.4073
	Clay	0.2090	0.1015
	Clearwater	R	R
	Cottonwood	1.0953	0.8613
	Crow Wing	0.3382	0.2670
	Dakota	0.3337	0.3772
	Dodge	0.5821	0.2615
	Douglas	0.5675	0.4614
	Faribault	0.6268	0.8278
	Fillmore	0.9337	0.7934
	Freeborn	0.5553	0.3124
	Goodhue	0.4906	0.4035
	Grant	R	R
	Hennepin	0.2414	0.1873
	Houston	0.8154	0.7496

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Minnesota</b> <i>(continued)</i>	Hubbard	R	R
	Isanti	0.3541	0.2049
	Jackson	R	R
	Kanabec	1.1161	0.7810
	Kandiyohi	0.3755	0.3859
	Lac qui Parle	0.3293	0.1952
	Le Sueur	0.4744	0.4723
	Lincoln	0.5229	0.4043
	Lyon	0.5228	0.5304
	McLeod	0.4991	0.1975
	Mahnomen	0.1615	0.1680
	Martin	R	R
	Meeker	0.4451	0.5156
	Mille Lacs	0.5608	0.4852
	Morrison	0.4754	0.4514
	Mower	1.0162	0.5805
	Murray	0.8442	0.7297
	Nicollet	0.3423	0.4438
	Nobles	0.6506	0.5159
	Norman	R	R
	Olmsted	0.5010	0.4346
	Otter Tail	0.9367	0.4855
	Pine	0.6892	0.4082
	Pipestone	0.8472	0.9343
	Polk	1.3804	0.6010
	Pope	0.7051	0.6338
	Ramsey	R	R
	Redwood	0.2865	0.2796
	Renville	0.3179	0.2261
	Rice	0.7303	0.6915
	Rock	0.9067	0.9195
	Roseau	R	R
	St. Louis	0.5263	0.4333
	Scott	0.3879	0.3572
	Sherburne	0.5656	0.3958
	Sibley	0.5599	0.1995
	Stearns	0.4553	0.3411
	Steele	0.3731	0.2929
	Stevens	0.4872	0.1661
	Swift	0.3275	0.4943

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### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Minnesota</b> <i>(continued)</i>	Todd	0.4954	0.4720
	Traverse	R	R
	Wabasha	0.3702	0.2100
	Wadena	0.5326	0.4427
	Waseca	0.7006	0.6752
	Washington	0.5657	0.2448
	Watonwan	0.2377	0.2367
	Winona	0.4360	0.3767
	Wright	0.4870	0.3420
	Yellow Medicine	0.6590	0.5891
<b>North Dakota</b>	Barnes	1.9641	1.0978
	Cass	R	R
	Emmons	1.3577	1.3283
	Foster	R	R
	Grant	R	R
	Hettinger	R	R
	Kidder	R	R
	La Moure	R	R
	Logan	1.2418	1.2407
	McHenry	R	R
	McIntosh	1.1887	0.4456
	Morton	R	R
	Ransom	R	R
	Sargent	R	R
	Stark	1.4682	1.3517
	Stutsman	1.5397	1.2753
<b>South Dakota</b>	Beadle	R	R
	Bon Homme	0.7981	0.7806
	Brookings	0.7086	0.4145
	Brown	R	R
	Brule	R	R
	Campbell	R	R
	Charles Mix	1.1717	1.1023
	Clark	R	R
	Codington	0.6904	0.4309
	Davison	2.6777	1.3591

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State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>South Dakota</b> <i>(continued)</i>	Day	0.9759	0.3547
	Deuel	0.5262	0.2316
	Douglas	1.3806	1.3054
	Edmunds	R	R
	Faulk	R	R
	Grant	0.2894	0.1911
	Gregory	R	R
	Hamlin	0.5049	0.1353
	Hand	R	R
	Hanson	R	R
	Hutchinson	0.8467	0.3553
	Kingsbury	0.9148	0.8505
	Lake	0.6607	0.7179
	Lincoln	0.9559	0.9858
	McCook	0.6580	0.9171
	McPherson	R	R
	Minnehaha	1.0338	0.8885
	Moody	0.5354	0.1268
	Roberts	0.4454	0.2440
	Spink	R	R
	Turner	0.7661	0.7776
	Union	0.8491	0.6069
	Yankton	R	R
<b>Wisconsin</b>	Adams	0.6676	0.0157
	Ashland	0.9582	0.5304
	Barron	0.5822	0.2373
	Bayfield	0.9048	0.7162
	Brown	0.5317	0.3792
	Buffalo	0.5200	0.2406
	Burnett	0.8065	0.3304
	Calumet	0.4279	0.4009
	Chippewa	0.5450	0.2949
	Clark	0.3382	0.2104
	Columbia	0.7613	0.4488
	Crawford	0.8938	0.5881
	Dane	0.5712	0.3953
	Dodge	0.5734	0.4628
	Door	0.5072	0.2441



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### Upper Midwest Order Reported Payroll Average Hauling Charges, By state and County, for May 2022

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Wisconsin</b> <i>(continued)</i>	Douglas	0.9490	0.9172
	Dunn	0.4115	0.3889
	Eau Claire	0.5345	0.2648
	Florence	R	R
	Fond du Lac	0.3786	0.4211
	Grant	0.6458	0.4973
	Green	0.3821	0.2240
	Green Lake	0.5414	0.4768
	Iowa	0.5157	0.4523
	Iron	1.2936	0.7132
	Jackson	0.3623	0.2260
	Jefferson	0.6600	0.4629
	Juneau	0.8306	0.6759
	Kenosha	1.7484	1.3600
	Kewaunee	0.5382	0.1753
	La Crosse	0.4970	0.3782
	LaFayette	0.4241	0.3484
	Langlade	0.5649	0.5217
	Lincoln	0.5376	0.4884
	Manitowoc	0.5463	0.3386
	Marathon	0.3413	0.2099
	Marinette	0.5366	0.4942
	Marquette	0.5393	0.2506
	Monroe	0.8055	0.7981
	Oconto	0.4907	0.3100
	Outagamie	0.6297	0.4088
	Ozaukee	0.4702	0.2641
	Pepin	0.2878	0.2432
	Pierce	0.2925	0.2736
	Polk	0.7320	0.3207
	Portage	0.4512	0.1999
	Price	0.9296	0.3733
	Racine	1.4052	1.3319
	Richland	0.7539	0.5749
	Rock	0.6173	0.2297
	Rusk	0.8454	0.7237
	St. Croix	0.5570	0.2509
	Sauk	0.7461	0.5744
	Sawyer	0.7579	0.8696
	Shawano	0.5543	0.4599

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State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Wisconsin</b> <i>(continued)</i>	Sheboygan	0.3556	0.3722
	Taylor	0.5038	0.3041
	Trempealeau	0.6804	0.3652
	Vernon	0.6264	0.6231
	Walworth	0.8394	0.4771
	Washburn	0.9113	0.3066
	Washington	0.4191	0.3483
	Waukesha	0.9017	0.6710
	Waupaca	0.5157	0.3378
	Waushara	0.5169	0.1481
	Winnebago	0.5880	0.3114
	Wood	0.2939	0.1177

R = Restricted data, counties with fewer than 3 producers delivering to the market.