

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

MAY 2019



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MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA

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Introduction

This study categorizes and analyzes hauling charges based on state, county, and producer size groups for May 2019. The payroll data for 10,831 dairy producers who were associated with the Upper Midwest Federal Milk Order were examined². 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	2019	2018
Producer Deliveries (pounds)	4,087,483,804	4,075,216,243
Total Hauling Charges	\$12,079,305.64	\$11,318,691.22
Weighted Average Charges (per cwt.)	\$0.2955	\$0.2777

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.

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

² 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 2019 of \$0.5015 per cwt., compared to \$0.4793 for 2018. 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 2019 data for each of ten size groups. Skewness dominates the results in Table 2, with 68% of the milk produced by 12% 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 2019

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	0.8630	476,690.26	63,342,925	2,284	27,733	0.7526
50,000 to 99,999	0.4750	870,061.28	186,732,823	2,509	74,425	0.4659
100,000 to 249,999	0.3750	1,837,207.43	495,568,387	3,204	154,672	0.3707
250,000 to 399,999	0.3502	1,041,633.61	296,192,852	944	313,764	0.3517
400,000 to 599,999	0.3367	924,676.80	274,990,595	567	484,992	0.3363
600,000 to 999,999	0.3146	1,140,928.09	362,647,042	470	771,589	0.3146
1,000,000 to 1,499,999	0.2495	910,075.29	366,671,184	298	1,230,440	0.2482
1,500,000 to 2,499,999	0.2984	1,432,011.53	483,909,313	251	1,927,926	0.2959
2,500,000 to 4,999,999	0.2620	1,728,269.41	661,777,697	195	3,393,732	0.2612
5,000,000 or more	0.2111	1,717,751.94	895,650,986	109	8,216,982	0.1918
Total or Average	0.4854	12,079,305.64	4,087,483,804	10,831	377,387	0.2955

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.

Table 3
Average Producer Delivery, by State, for May 2019

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	0.6648	221,884.42	51,355,602	207	248,095	0.4321
Iowa	0.6442	1,582,709.53	371,091,306	837	443,359	0.4265
Michigan UP	1.1145	125,946.82	11,253,479	31	363,015	1.1192
Minnesota	0.5590	3,016,182.39	845,111,877	2,579	327,690	0.3569
North Dakota	1.1513	146,587.80	22,232,350	50	444,647	0.6593
South Dakota	0.8774	856,369.56	224,707,616	158	1,422,200	0.3811
Wisconsin	0.4172	6,129,625.12	2,561,731,574	6,969	367,590	0.2393
Total or Average	0.4854	12,079,305.64	4,087,483,804	10,831	337,388	0.2955

As seen in Table 3, North Dakota has the highest simple average hauling charge. The state also has a low number of farms, the longest distance from high demand areas, and less handler competition. Wisconsin in contrast has a low average hauling charge 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.

Table 4

Midwest Retail Fuel Price and Average Hauling Charges ³

Year	May Fuel Price	Change from Previous Year	May Average Hauling Charges	Change from Previous Year
	(\$ per gallon)	(%)	(\$ per cwt)	(%)
2010	3.038	40.00	0.3029	1.51
2011	4.001	31.70	0.3007	- 0.73
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

Chart 1 on the next page shows that over 80% of the milk delivered on Federal Order 30 was from Wisconsin and Minnesota. The other states on the order each had less than 10% 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.

³ 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 2019, 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 62.67% 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 2019

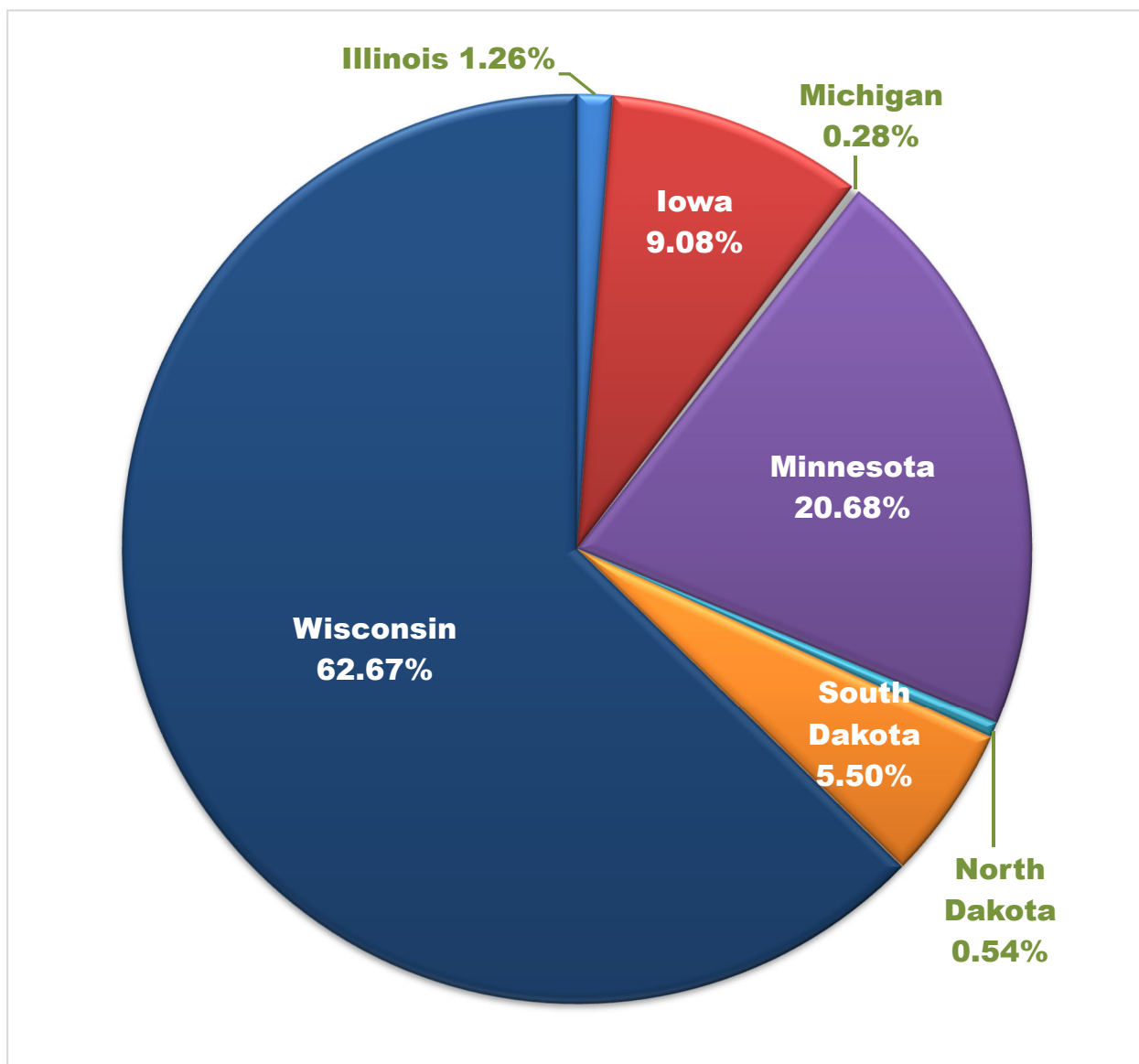
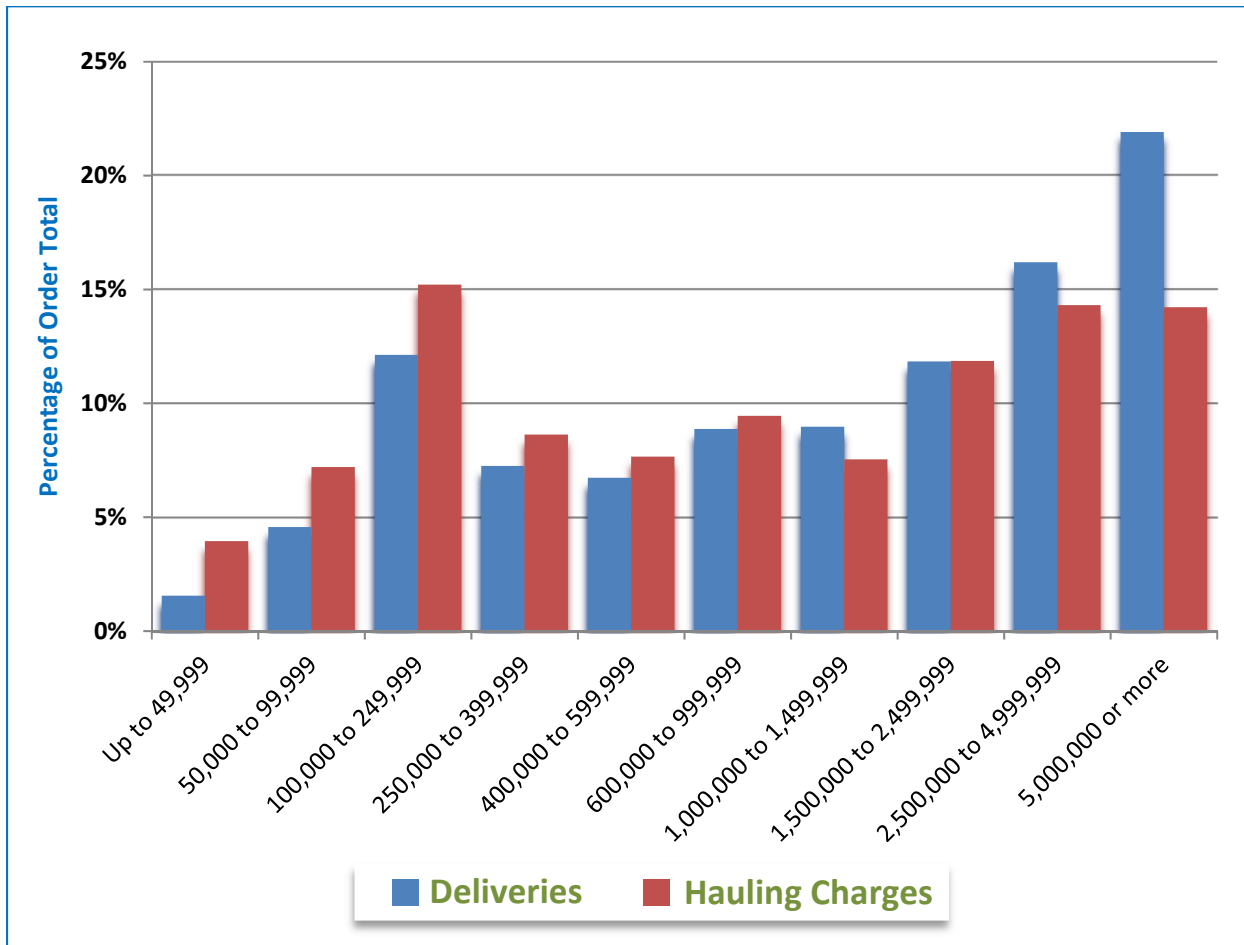


Chart 2

Percentage of Hauling Charges and Producer Deliveries, for May 2019



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 2019
(Dollars per cwt.)

Size Range	Illinois	Iowa	Michigan	Minnesota	North Dakota	South Dakota	Wisconsin	Average
Up to 49,999	0.7945	0.8622	R	0.8801	1.3817	1.7838	0.6635	0.7526
50,000 to 99,999	0.5707	0.6227	1.1206	0.5573	1.1282	1.0642	0.3980	0.4659
100,000 to 249,999	0.5516	0.5476	1.1462	0.4254	1.0281	0.9015	0.3045	0.3707
250,000 to 399,999	0.5302	0.5135	0.9811	0.3457	R	0.7199	0.3074	0.3517
400,000 to 599,999	0.4244	0.5329	1.1489	0.3343	R	0.5532	0.2914	0.3363
600,000 to 999,999	0.5450	0.4396	R	0.3774	R	0.7362	0.2536	0.3146
1,000,000 to 1,499,999	0.2666	0.4426	R	0.2653	R	0.3283	0.2219	0.2482
1,500,000 to 2,499,999	0.3237	0.5392	R	0.3168	0.5211	0.4607	0.2518	0.2959
2,500,000 to 4,999,999	R	0.4871	R	0.3466	0.6023	0.3784	0.1806	0.2612
5,000,000 or more	R	0.2746	R	0.2600	R	0.2929	0.1213	0.1918
Average	0.4321	0.4265	1.1192	0.3569	0.6593	0.3811	0.2393	0.2955

R = Restricted, fewer than three producers.

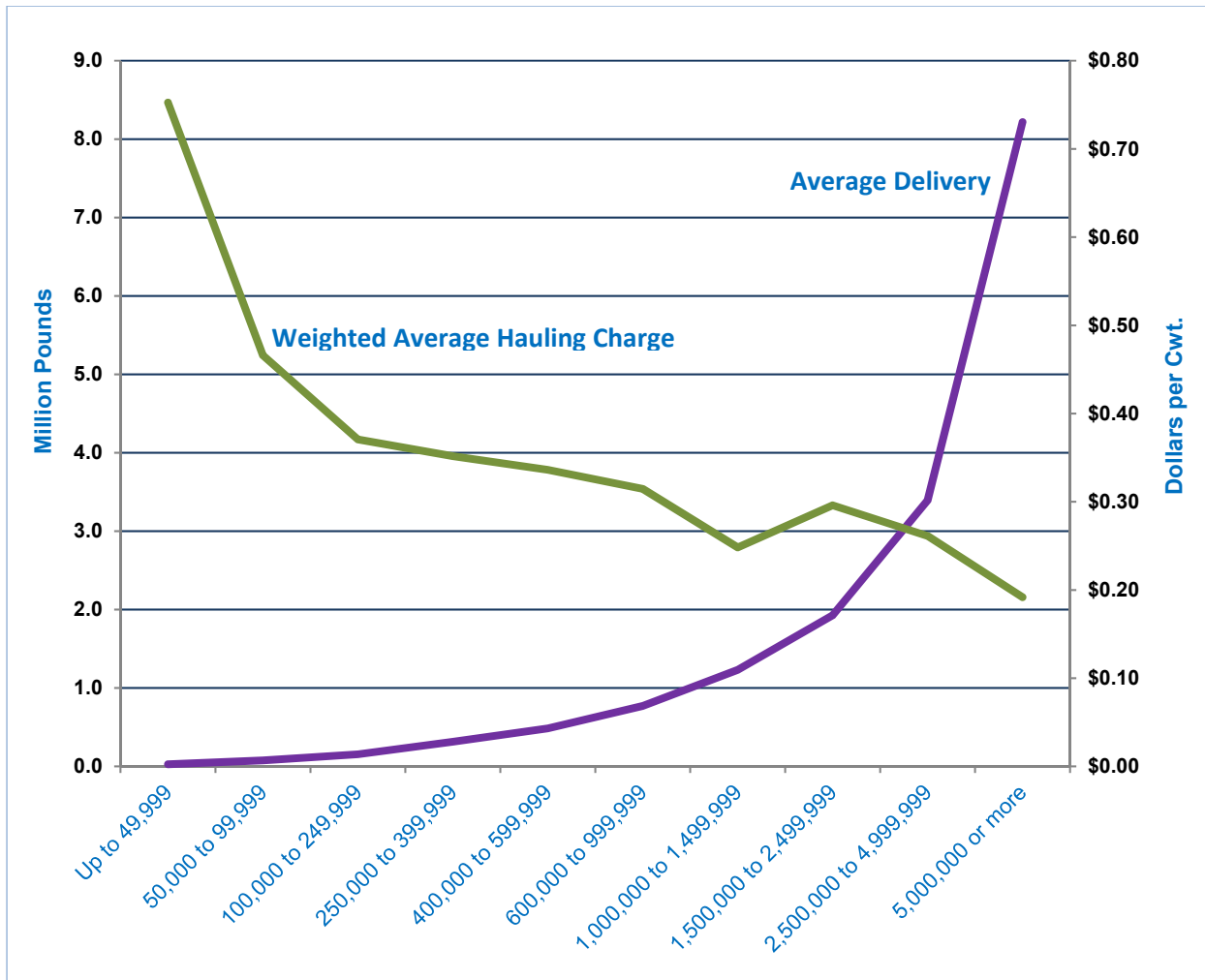
The study acknowledges that there are several major factors causing differences in hauling charges between individual producer sizes. The most obvious factor responsible for influencing the producer's hauling rate per hundredweight, by herd size range, is that many Upper Midwest handlers use a fixed 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 83.4% 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 generally located within the vicinity of multiple milk processors. Therefore, these producers will apparently 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 2019.

Chart 3

Producer Delivery versus Average Hauling Charges for May 2019



As mentioned above, one factor that contributes to varying hauling rate charges is the dairy producer's location to 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 semi-remote 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 semi-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 Zero Milk Hauling Charges Producers

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.

Table 6**Producers with Zero Hauling Charges, by Size Range, for May 2019**

Size Range	Production	Number of Farms	Producer Average Monthly Delivery
	(pounds)		(pounds)
Up to 49,999	3,380,118	167	20,240
50,000 to 99,999	4,145,545	59	70,263
100,000 to 249,999	7,858,970	50	157,179
250,000 to 399,999	4,512,806	15	300,854
400,000 to 599,999	7,655,843	15	510,390
600,000 to 999,999	30,900,991	39	792,333
1,000,000 to 1,499,999	58,881,974	47	1,252,808
1,500,000 to 2,499,999	80,273,570	41	1,957,892
2,500,000 to 4,999,999	175,669,806	51	3,444,506
5,000,000 or more	431,413,503	49	8,804,357
Total	804,693,126	533	1,509,743

Table 7**Producers with Zero Hauling Charges, by State, for May 2019**

State	Production	Number of Farms	Producer Average Monthly Delivery
	(pounds)		(pounds)
Illinois	7,415,128	8	926,891
Iowa	64,632,410	25	2,585,296
Minnesota	77,106,672	114	676,374
Wisconsin, North Dakota, and South Dakota	655,538,916	386	1,698,287
Total	804,693,126	533	1,509,743

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 804,693,126 pounds in 2019. 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 $\$12,079,305.64 / 3,282,790,678 * 100 = \0.3680 . The weighted average hauling charge per hundredweight increases from \$0.2955 to \$0.3680.

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.

Table 8
**Average Hauling Charges, by Size Range,
with Zero Charges Removed, for May 2019**

Size Range	Total Hauling Charges	Production	Production Without Zeros	Weighted Average Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$ per cwt.)
Up to 49,999	476,690.26	63,342,925	59,962,807	0.7950
50,000 to 99,999	870,061.28	186,732,823	182,587,278	0.4765
100,000 to 249,999	1,837,207.43	495,568,387	487,709,417	0.3767
250,000 to 399,999	1,041,633.61	296,192,852	291,680,046	0.3571
400,000 to 599,999	924,676.80	274,990,595	267,334,752	0.3459
600,000 to 999,999	1,140,928.09	362,647,042	331,746,051	0.3439
1,000,000 to 1,499,999	910,075.29	366,671,184	307,789,210	0.2957
1,500,000 to 2,499,999	1,432,011.53	483,909,313	403,635,743	0.3548
2,500,000 to 4,999,999	1,728,269.41	661,777,697	486,107,891	0.3555
5,000,000 or more	1,717,751.94	895,650,986	464,237,483	0.3700
Total	12,079,305.64	4,087,483,804	3,282,790,678	0.3680

Table 9
**Average Hauling Charges, by State, with
 Zero Charges Removed, for May 2019**

State	Total Hauling Charges	Production	Production Without Zeros	Weighted Average Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$ per cwt.)
Illinois	221,884.42	51,355,602	43,940,474	0.5050
Iowa	1,582,709.53	371,091,306	306,458,896	0.5165
Michigan	125,946.82	11,253,479	11,253,479	1.1192
Minnesota	3,016,182.39	845,111,877	768,005,205	0.3927
Wisconsin, North Dakota, and South Dakota	7,132,582.48	2,808,671,540	2,153,132,624	0.3415
Total	12,079,305.64	4,087,483,804	3,282,790,678	0.3680

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 2019

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
----- (Dollars Per Cwt.) -----			
Illinois	Bond	R	R
	Boone	0.56	0.56
	Brown	R	R
	Carroll	0.46	0.21
	Clinton	0.60	0.58
	De Kalb	0.54	0.46
	Douglas	1.00	1.00
	Jo Daviess	0.48	0.38
	Kane	0.55	0.56
	Lake	R	R
	McHenry	0.90	0.58
	Moultrie	R	R
	Ogle	0.68	0.62
	Rock Island	0.35	0.65
	Stephenson	0.49	0.36
	Washington	R	R
	Whiteside	0.59	0.51
	Will	3.44	1.22
Winnebago	0.67	0.65	
Iowa	Adair	R	R
	Allamakee	0.47	0.35
	Appanoose	R	R
	Benton	0.41	0.37
	Black Hawk	0.60	0.58
	Bremer	0.81	0.55
	Buchanan	0.91	0.69
	Butler	0.50	0.50
	Cedar	2.59	0.64
	Cerro Gordo	R	R
	Cherokee	R	R
	Chickasaw	0.64	0.56
	Clarke	R	R
	Clay	R	R
	Clayton	0.66	0.56
	Clinton	0.92	0.78

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
----- (Dollars Per Cwt.) -----			
Iowa (continued)			
	Crawford	R	R
	Davis	0.64	0.56
	Decatur	R	R
	Delaware	0.73	0.56
	Dickinson	R	R
	Dubuque	0.53	0.47
	Emmet	R	R
	Fayette	0.67	0.53
	Floyd	0.59	0.57
	Grundy	0.60	0.68
	Hancock	R	R
	Hardin	R	R
	Henry	R	R
	Howard	0.53	0.44
	Humboldt	R	R
	Ida	R	R
	Jackson	1.25	0.70
	Jasper	0.35	0.35
	Johnson	0.67	0.60
	Jones	0.97	0.49
	Keokuk	R	R
	Kossuth	2.08	0.95
	Linn	0.72	0.61
	Lucas	R	R
	Lyon	0.65	0.31
	Mahaska	0.35	0.35
	Marion	0.29	0.28
	Marshall	R	R
	Mitchell	0.61	0.62
	O'Brien	1.13	0.39
	Osceola	0.73	0.76
	Palo Alto	1.27	0.99
	Plymouth	R	R
	Polk	R	R
	Poweshiek	0.35	0.35
	Sac	R	R

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
----- (Dollars Per Cwt.) -----			
Iowa (continued)			
	Scott	R	R
	Sioux	0.57	0.42
	Story	R	R
	Van Buren	1.13	0.49
	Warren	R	R
	Washington	0.60	0.54
	Wayne	0.62	0.48
	Winnebago	R	R
	Winneshiek	0.50	0.41
	Woodbury	R	R
	Worth	R	R
Michigan			
	Delta	1.15	1.15
	Dickinson	1.15	1.16
	Menominee	1.11	1.12
Minnesota			
	Aitkin	R	R
	Becker	0.47	0.43
	Beltrami	4.03	2.63
	Benton	0.54	0.42
	Blue Earth	0.93	0.77
	Brown	0.44	0.39
	Carlton	1.02	0.91
	Carver	0.38	0.28
	Cass	0.96	0.86
	Chippewa	0.59	0.50
	Chisago	0.57	0.36
	Clay	0.33	0.16
	Clearwater	R	R
	Cottonwood	1.21	1.04
	Crow Wing	0.69	0.58
	Dakota	0.82	0.39
	Dodge	0.54	0.43
	Douglas	0.56	0.38
	Faribault	1.05	0.83
	Fillmore	0.69	0.45

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
----- (Dollars Per Cwt.) -----			
Minnesota (continued)			
	Freeborn	1.16	0.64
	Goodhue	0.51	0.32
	Grant	R	R
	Hennepin	0.41	0.26
	Houston	0.73	0.55
	Hubbard	0.97	0.51
	Isanti	0.51	0.20
	Jackson	R	R
	Kanabec	0.93	0.44
	Kandiyohi	0.50	0.35
	Koochiching	R	R
	Lac Qui Parle	0.33	0.16
	Le Sueur	0.60	0.41
	Lincoln	0.78	0.55
	Lyon	0.67	0.70
	Mahnomen	0.61	0.30
	Marshall	0.29	0.18
	Martin	R	R
	McLeod	R	R
	Meeker	0.42	0.38
	Mille Lacs	0.65	0.46
	Morrison	0.54	0.32
	Mower	0.82	0.65
	Murray	0.71	0.60
	Nicollet	0.60	0.34
	Nobles	0.81	0.66
	Norman	0.88	0.09
	Olmsted	0.51	0.38
	Otter Tail	0.54	0.34
	Pennington	R	R
	Pine	0.79	0.37
	Pipestone	0.69	0.77
	Polk	1.76	0.75
	Pope	0.59	0.48
	Ramsey	R	R

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
----- (Dollars Per Cwt.) -----			
Minnesota (continued)	Red Lake	0.96	0.92
	Redwood	0.83	0.69
	Renville	0.43	0.23
	Rice	0.74	0.52
	Rock	1.02	0.61
	Roseau	1.53	1.63
	St. Louis	0.45	0.17
	Scott	0.44	0.35
	Sherburne	0.76	0.43
	Sibley	0.46	0.26
	Stearns	0.47	0.34
	Steele	0.59	0.52
	Stevens	0.69	0.13
	Swift	0.48	0.17
	Todd	0.55	0.39
	Traverse	R	R
	Wabasha	0.39	0.24
	Wadena	0.41	0.34
	Waseca	0.96	0.81
	Washington	0.99	0.35
	Watonwan	1.20	0.34
	Winona	0.32	0.30
	Wright	0.49	0.30
	Yellow Medicine	1.22	1.05
North Dakota	Barnes	1.03	0.13
	Burleigh	R	R
	Cass	R	R
	Emmons	0.94	1.05
	Foster	R	R
	Grant	R	R
	Hettinger	1.15	1.17
	Kidder	R	R
	La Moure	R	R
	Logan	0.94	0.93
	McHenry	R	R

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

<u>State</u>	<u>County</u>	<u>Simple Average Hauling Charges</u>	<u>Weighted Average Hauling Charges</u>
----- (Dollars Per Cwt.) -----			
North Dakota (continued)			
	McIntosh	1.05	0.34
	Morton	2.11	1.42
	Nelson	R	R
	Ransom	R	R
	Richland	R	R
	Sargent	R	R
	Stark	1.24	0.92
	Stutsman	1.28	1.29
	Walsh	R	R
South Dakota			
	Beadle	R	R
	Brookings	0.73	0.45
	Brown	1.52	0.15
	Brule	R	R
	Campbell	R	R
	Charles Mix	1.79	1.63
	Clark	R	R
	Codington	0.85	0.36
	Davison	R	R
	Day	1.42	0.51
	Deuel	0.80	0.22
	Dewey	R	R
	Douglas	1.48	1.34
	Edmunds	R	R
	Faulk	R	R
	Grant	0.28	0.13
	Gregory	R	R
	Hamlin	0.60	0.26
	Hand	R	R
	Hanson	1.15	0.82
	Hutchinson	0.94	0.63
	Kingsbury	0.69	0.64
	Lake	0.62	0.59
	Lincoln	0.79	0.77
	Marshall	0.92	0.88

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

<u>State</u>	<u>County</u>	<u>Simple Average Hauling Charges</u>	<u>Weighted Average Hauling Charges</u>
----- (Dollars Per Cwt.) -----			
South Dakota (continued)			
	McCook	R	R
	McPherson	0.66	0.22
	Minnehaha	0.81	0.77
	Moody	0.76	0.39
	Roberts	0.91	0.17
	Sanborn	R	R
	Spink	R	R
	Tripp	R	R
	Turner	0.68	0.15
	Union	R	R
	Yankton	R	R
Wisconsin	Adams	0.35	0.01
	Ashland	0.73	0.15
	Barron	0.59	0.23
	Bayfield	0.76	0.55
	Brown	0.28	0.17
	Buffalo	0.67	0.43
	Burnett	0.55	0.15
	Calumet	0.34	0.32
	Chippewa	0.47	0.30
	Clark	0.28	0.14
	Columbia	0.46	0.33
	Crawford	0.81	0.49
	Dane	0.41	0.34
	Dodge	0.39	0.34
	Door	0.36	0.15
	Douglas	0.58	0.52
	Dunn	0.74	0.27
	Eau Claire	0.65	0.38
	Florence	R	R
	Fond du Lac	0.29	0.15
	Grant	0.49	0.35
	Green	0.33	0.18
	Green Lake	0.45	0.14

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

<u>State</u>	<u>County</u>	<u>Simple Average Hauling Charges</u>	<u>Weighted Average Hauling Charges</u>
----- (Dollars Per Cwt.) -----			
Wisconsin (continued)			
	Iowa	0.43	0.33
	Iron	0.82	0.93
	Jackson	0.44	0.21
	Jefferson	0.47	0.34
	Juneau	0.56	0.43
	Kenosha	0.71	0.54
	Kewaunee	0.32	0.09
	La Crosse	0.69	0.49
	LaFayette	0.37	0.31
	Langlade	0.23	0.23
	Lincoln	0.33	0.26
	Manitowoc	0.30	0.18
	Marathon	0.29	0.13
	Marinette	0.32	0.29
	Marquette	0.39	0.20
	Monroe	0.59	0.40
	Oconto	0.32	0.16
	Outagamie	0.29	0.08
	Ozaukee	0.37	0.26
	Pepin	0.34	0.29
	Pierce	0.54	0.32
	Polk	0.58	0.22
	Portage	0.26	0.11
	Price	0.76	0.14
	Racine	0.60	0.58
	Richland	0.62	0.37
	Rock	0.37	0.19
	Rusk	0.74	0.49
	St Croix	0.30	0.16
	Sauk	0.56	0.42
	Sawyer	0.87	0.41
	Shawano	0.31	0.20
	Sheboygan	0.32	0.31
	Taylor	0.47	0.24
	Trempealeau	0.69	0.40

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County, for May 2019

<u>State</u>	<u>County</u>	<u>Simple Average Hauling Charges</u>	<u>Weighted Average Hauling Charges</u>
----- (Dollars Per Cwt.) -----			
Wisconsin (continued)			
	Vernon	0.71	0.52
	Walworth	0.49	0.34
	Washburn	0.88	0.56
	Washington	0.37	0.33
	Waukesha	0.54	0.46
	Waupaca	0.40	0.21
	Waushara	0.33	0.07
	Winnebago	0.27	0.11
	Wood	0.23	0.12

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