

**MILK HAULING CHARGES IN THE
UPPER MIDWEST MARKETING AREA
MAY 2018**



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MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA MAY 2018

Corey Freije¹

Introduction

This study categorizes and analyzes hauling charges based on state, county, and producer size groups for May 2018. The payroll data for the 11,417 dairy producers who were associated with the Upper Midwest Marketing Order in May 2018 were examined². The market administrator's producer database offers options for handlers to report stop charges, fuel charges, or a flat fee. Some handlers do a combination of charges necessitating the researcher to sum the charges to arrive at a total charge.

Table 1

Average Hauling Charges for the Marketing Area for May

Statistic	2018	2017
Producer Deliveries (pounds)	4,075,216,243	4,015,919,442
Total Hauling Charges (\$)	11,318,691.22	8,048,416.98
Weighted Average Charges (\$/cwt.)	0.2777	0.2004

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 his 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.

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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 2017 of \$0.3409 per cwt., compared to \$0.3263 for 2016. 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 data for each of ten size groups. Skewness dominates the results in Table 2, with 65% of the milk produced by 12% of the farms. In addition, these largest categories of farms pay 52% 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 2018

Size	Simple Average Hauling Charges	Total Hauling Charges	Production	Number of Farms	Producer Average Delivery	Weighted Average Hauling Charges
	(\$/cwt.)	(\$)	(pounds)		(pounds)	(\$/cwt.)
Up to 49,999	0.8788	475,110.20	63,529,475	2,040	31,142	0.7479
50,000 to 99,999	0.4811	961,886.07	204,113,326	2,755	74,088	0.4713
100,000 to 249,999	0.3695	2,059,566.88	565,315,951	3,669	154,079	0.3643
250,000 to 399,999	0.3283	1,033,742.50	316,066,971	1,014	311,703	0.3271
400,000 to 599,999	0.3147	902,534.98	288,251,161	594	485,271	0.3131
600,000 to 999,999	0.2815	1,075,060.89	384,953,822	501	768,371	0.2793
1,000,000 to 1,499,999	0.2550	953,005.19	372,444,579	307	1,213,175	0.2559
1,500,000 to 2,499,999	0.2710	1,352,294.80	505,087,220	262	1,927,814	0.2677
2,500,000 to 4,999,999	0.2139	1,248,688.78	601,944,648	179	3,362,819	0.2074
5,000,000 or more	0.1930	1,256,800.93	773,509,090	96	8,057,386	0.1625
Total/Average	0.4679	11,318,691.22	4,075,216,243	11,417	356,943	0.2777

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 in a market affect hauling charges. These factors, such as distance to plants and population centers, and competition among handlers along with the predominance of dairying, have been tested and their relevance supported in earlier papers.

Table 3

Average Producer Delivery by State for May 2018

State	Simple Average Hauling Charges	Total Hauling Charges	Production	Number of Farms	Producer Average Delivery	Weighted Average Hauling Charges
	(\$/cwt.)	(\$)	(pounds)		(pounds)	(\$)
Illinois	0.6336	243,483.67	61,675,619	244	252,769	0.3948
Iowa	0.6301	1,561,008.84	354,361,350	798	444,062	0.4405
Michigan UP	0.3017	17,236.49	11,171,988	34	328,588	0.1543
Minnesota	0.5580	2,556,003.05	840,342,509	2,697	311,584	0.3042
North Dakota	1.1194	154,096.14	23,988,181	51	470,356	0.6424
South Dakota	0.7303	616,225.68	206,219,619	140	1,472,997	0.2988
Wisconsin	0.4039	6,170,637.35	2,577,456,977	7,453	345,828	0.2394
Total/Average	0.4679	11,318,691.22	4,075,216,243	11,417	356,943	0.2777

As Table 3 indicates, North Dakota has the highest average hauling charge. This result is from 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 and 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 the average hauling charges. Both levels are above historical averages, with the hauling charges showing less fluctuation and a dampened overall increase to the more volatile fuel price. That volatility is evident in the large positive and negative percentage change values in fuel. In contrast, the percentage change 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 Fuel Retail Price and Average Hauling Charges³

Year	May Diesel Fuel		May Average Hauling	
	Price	Change from Previous Year	Charges	Change from Previous Year
	(\$/gallon)	(%)	(\$/cwt)	(%)
2008	4.382	58.60	0.2774	10.96
2009	2.170	-50.48	0.2984	7.57
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

Chart 1 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 shows the milk production percentage for each size class and also the percentage of total hauling charges paid by each size class. For the five smallest size classes, the percentage of hauling charges is greater than their percentage of total production. For the larger five classes, their percentage of hauling charges is smaller or equal to their percentage of production. The commonly accepted 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.

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.

Chart 3, on page 8, builds on the distribution in Chart 2 to show that average hauling charges and average milk production are inversely related.

Percentage of Milk Deliveries by State

In May 2018, dairy producers from three states delivered the majority of the milk associated with the Upper Midwest Order. Wisconsin producers delivered the most milk of any of the states, by supplying 63.25 percent of the total milk volume associated with the market. Producers from Minnesota and Iowa were second and third in milk volume supplied to the order, respectively.

Chart 1

Percent of Delivery Volume by State for May 2018

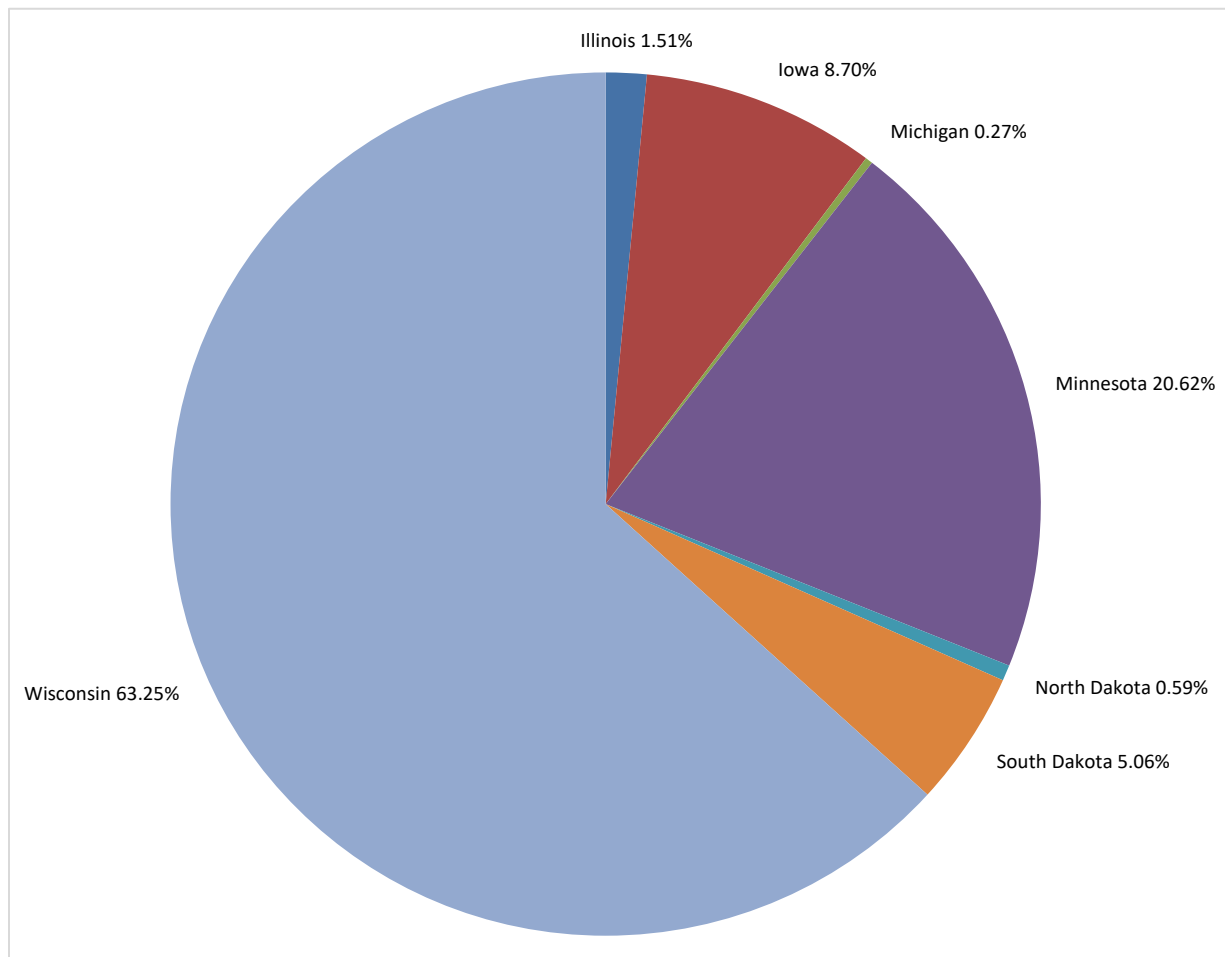
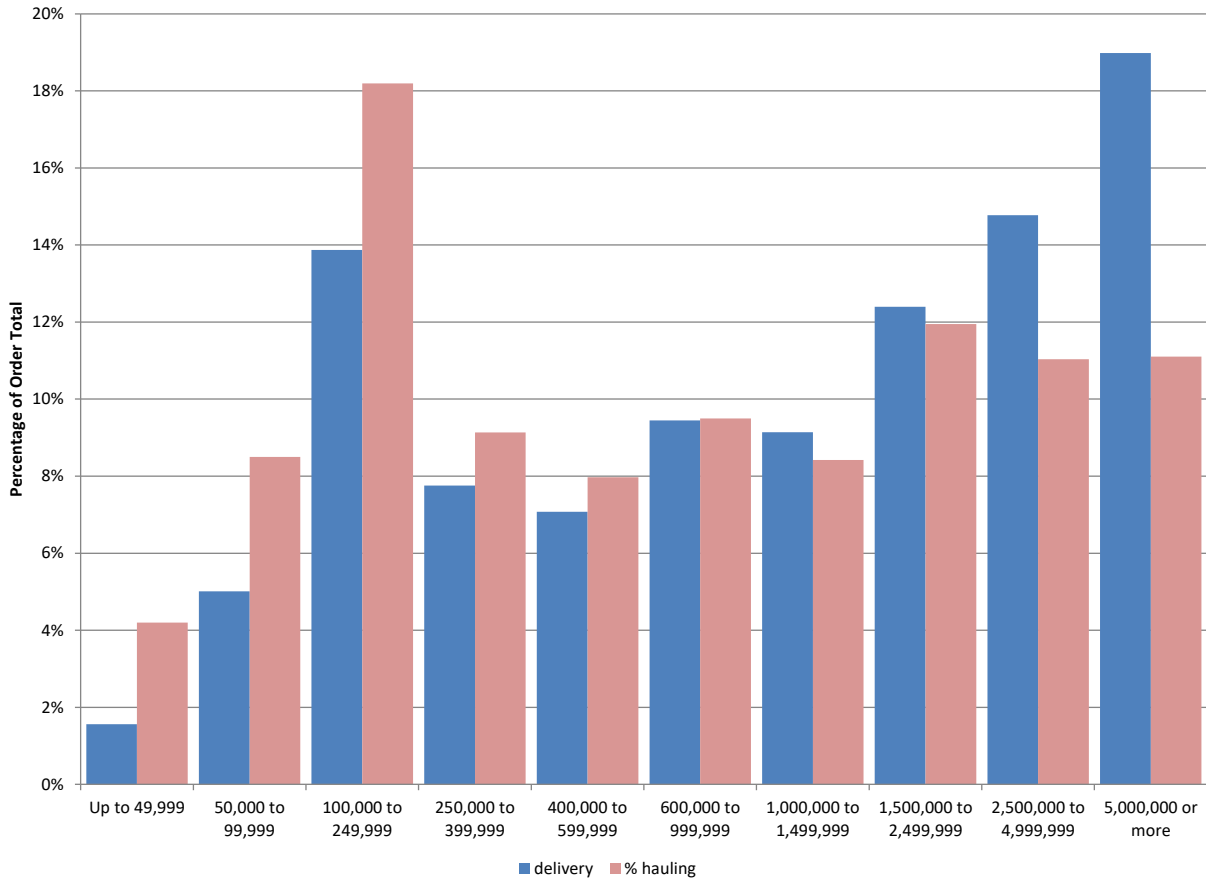


Chart 2

Percent of Hauling Charges and Producer Delivery for May 2018



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 breaks down the market's dairy producers for each state into ten producer milk volume categories or size ranges. The data presented in Table 5 show a strong indication that as the producer's milk volume increases, the average hauling charge per hundredweight decreases.

Table 5

Average Hauling Charges, by Size Range and State, for May 2018 (\$ per cwt.)

Size	Illinois	Iowa	Michigan	Minnesota	North Dakota	South Dakota	Wisconsin	Average
Up to 49,999	1.0266	0.8849	R	0.9395	1.5230	1.8171	0.6442	0.8788
50,000 to 99,999	0.5815	0.6305	0.4964	0.5882	1.2119	1.2661	0.4004	0.4811
100,000 to 249,999	0.5085	0.5477	0.3015	0.4236	0.9975	0.6451	0.3077	0.3695
250,000 to 399,999	0.4681	0.5449	0.1051	0.3099	1.0018	0.6947	0.2890	0.3283
400,000 to 599,999	0.4848	0.5159	0.0886	0.3106	0.7750	0.4982	0.2739	0.3147
600,000 to 999,999	0.4050	0.4620	R	0.3096	R	0.5049	0.2409	0.2815
1,000,000 to 1,499,999	0.1811	0.4649	R	0.2514	R	0.5208	0.2323	0.2550
1,500,000 to 2,499,999	0.2157	0.3580	R	0.2825	0.5076	0.3243	0.2502	0.2710
2,500,000 to 4,999,999	R	0.5197	R	0.2178	R	0.2663	0.1594	0.2139
5,000,000 or more	R	0.3069	R	0.1425	R	0.2304	0.1211	0.1930
Average	0.3948	0.4405	0.1543	0.3042	0.6424	0.2988	0.2394	0.2777

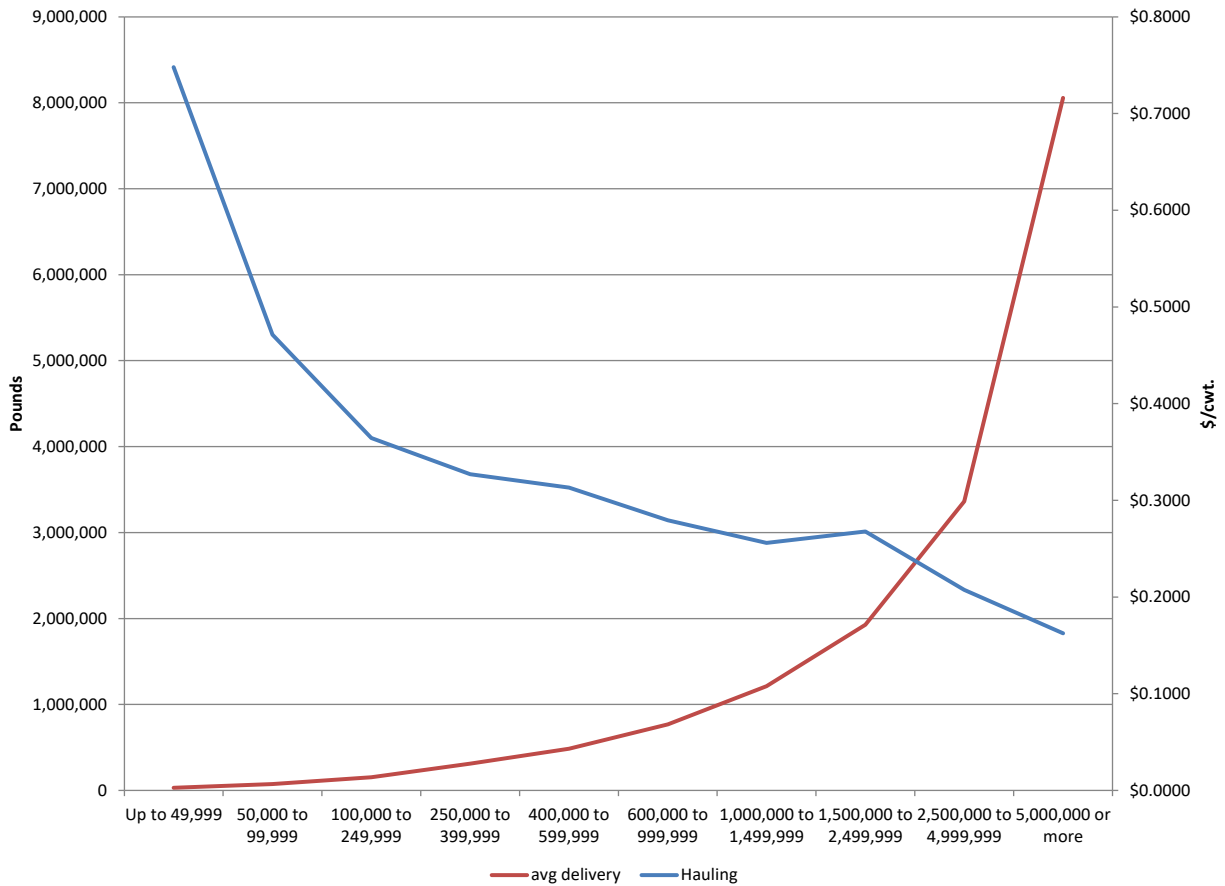
R = Restricted, fewer than three producers.

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 charge a fixed hauling dollar value to dairy producers, regardless of volume of milk the particular producer is marketing. Therefore, as one of these producer's 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 83.9 percent 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 therefore their hauling charges on a per hundredweight basis 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 2018.

Chart 3

Producer Delivery versus Average Hauling Charges for May 2018



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 his or her 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 a zero hauling charge 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 isn't reflected in the payroll records.

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.

Table 6

**Producers with Zero Hauling Charges by Size Range
for May 2018**

Size	Production	Number of Farms	Producer Average Delivery
	(pounds)		(pounds)
Up to 49,999	4,149,372	132	31,435
50,000 to 99,999	6,026,546	86	70,076
100,000 to 249,999	12,001,316	79	151,915
250,000 to 399,999	4,869,539	15	324,636
400,000 to 599,999	6,546,781	13	503,599
600,000 to 999,999	34,252,351	42	815,532
1,000,000 to 1,499,999	59,426,788	49	1,212,792
1,500,000 to 2,499,999	93,940,945	48	1,957,103
2,500,000 to 4,999,999	172,246,101	50	3,444,922
5,000,000 or more	335,530,051	39	8,603,335
Total	728,989,790	553	1,318,246

Table 7

**Producers with Zero Hauling Charges by State
for May 2018**

State	Production	Number of Farms	Producer Average Delivery
	(pounds)		(pounds)
Illinois	14,186,526	22	644,842
Iowa	45,981,502	17	2,704,794
Minnesota	48,002,213	39	1,230,826
North Dakota, South Dakota & Wisconsin	620,819,549	475	1,306,989
Total	728,989,790	553	1,318,246

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.

Effects of Zero Hauling Charges on Order-Wide Data

The dairy farms producing milk for which there is no deduction on the payroll accounted for 728,989,790 pounds in 2018. 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 zero hauling charge dairy farms. This recalculation is \$11,318,691.22 divided by 3,346,226,453 times 100 which equals \$0.3383. The weighted average hauling charge per hundredweight increases from \$0.2777 to \$0.3383. Tables 8 and 9 repeat this procedure 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, with Zero Charges Removed for May 2018

Size	Total Hauling Charges	Production	Production Without Zeros	Weighted Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$/cwt.)
Up to 49,999	475,110.20	63,529,475	59,380,103	0.8001
50,000 to 99,999	961,886.07	204,113,326	198,086,780	0.4856
100,000 to 249,999	2,059,566.88	565,315,951	553,314,635	0.3722
250,000 to 399,999	1,033,742.50	316,066,971	311,197,432	0.3322
400,000 to 599,999	902,534.98	288,251,161	281,704,380	0.3204
600,000 to 999,999	1,075,060.89	384,953,822	350,701,471	0.3065
1,000,000 to 1,499,999	953,005.19	372,444,579	313,017,791	0.3045
1,500,000 to 2,499,999	1,352,294.80	505,087,220	411,146,275	0.3289
2,500,000 to 4,999,999	1,248,688.78	601,944,648	429,698,547	0.2906
5,000,000 or more	1,256,800.93	773,509,090	437,979,039	0.2870
Total/Average	11,318,691.22	4,075,216,243	3,346,226,453	0.3383

Table 9

**Average Hauling Charges, by State, with Zero Charges Removed
for May 2018**

State	Total Hauling Charges	Production	Production Without Zeros	Weighted Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$/cwt.)
Illinois	243,483.67	61,675,619	47,489,093	0.5127
Iowa	1,561,008.84	354,361,350	308,379,848	0.5062
Michigan UP	17,236.49	11,171,988	11,171,988	0.1543
Minnesota	2,556,003.05	840,342,509	792,340,296	0.3226
North Dakota, South Dakota & Wisconsin	6,940,959.17	2,807,664,777	2,186,845,228	0.3174
Total/Average	11,318,691.22	4,075,216,243	3,346,226,453	0.3383

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 farm operations, combined with an adequate supply of milk procuring handlers.

This study revealed that a majority of handlers participating in the Upper Midwest Marketing Area 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 cost 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 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 the Dakotas and the Upper Peninsula of Michigan and distant counties in Minnesota and Wisconsin. Lastly, the weighted average hauling charges for Federal Order 30 show, historically, handlers passed on little of the changes in fuel costs to farmers.

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges
Illinois	Boone	0.49	0.29
	Brown	R	R
	Carroll	0.64	0.26
	Clinton	0.82	0.60
	De Kalb	0.40	0.29
	Douglas	1.00	1.00
	Jo Daviess	0.53	0.38
	Kane	0.45	0.47
	Kankakee	R	R
	Lake	R	R
	Lee	R	R
	Madison	1.20	0.82
	McHenry	0.70	0.46
	Ogle	0.78	0.55
	Peoria	R	R
	Pike	R	R
	Rock Island	0.44	0.64
	Stephenson	0.49	0.33
	Washington	R	R
	Whiteside	1.36	0.84
Will	1.76	1.26	
Winnebago	0.58	0.57	
Iowa	Allamakee	0.57	0.35
	Appanoose	R	R
	Benton	0.40	0.37
	Black Hawk	R	R
	Bremer	0.68	0.68
	Buchanan	0.73	0.63
	Butler	0.78	0.70
	Cedar	0.71	0.48
	Cerro Gordo	R	R
	Cherokee	1.02	0.82
	Chickasaw	0.58	0.51
	Clay	R	R
	Clayton	0.55	0.42
	Clinton	0.93	0.41
	Crawford	R	R
	Davis	0.66	0.53
	Decatur	R	R
Delaware	0.59	0.54	

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges ----- (\$/cwt.) -----
Iowa (continued)	Des Moines	R	R
	Dickinson	R	R
	Dubuque	0.52	0.48
	Emmet	R	R
	Fayette	0.56	0.46
	Floyd	0.52	0.51
	Franklin	R	R
	Grundy	R	R
	Hancock	R	R
	Hardin	1.19	1.17
	Henry	0.77	0.41
	Howard	0.47	0.40
	Humboldt	R	R
	Ida	R	R
	Jackson	0.63	0.57
	Jasper	1.28	0.51
	Johnson	0.87	0.82
	Jones	0.38	0.38
	Keokuk	R	R
	Kossuth	1.46	1.30
	Linn	0.73	0.53
	Louisa	R	R
	Lucas	R	R
	Lyon	0.54	0.30
	Mahaska	0.54	0.64
	Marion	0.70	0.41
	Marshall	R	R
	Mitchell	0.65	0.67
	Monroe	R	R
	O'Brien	1.11	0.41
	Osceola	1.32	0.86
	Palo Alto	1.05	0.96
	Plymouth	R	R
	Pocahontas	R	R
Polk	R	R	
Poweshiek	0.58	0.90	
Sac	R	R	
Scott	1.05	0.89	
Sioux	0.53	0.38	
Story	1.54	1.53	
Tama	2.11	1.61	
Van Buren	1.00	0.40	

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges ----- (\$/cwt.) -----
Iowa (continued)	Warren	0.87	0.44
	Washington	0.62	0.61
	Wayne	0.47	0.38
	Winnebago	R	R
	Winneshiek	0.46	0.36
	Woodbury	R	R
	Worth	1.10	1.10
Michigan	Delta	0.39	0.32
	Dickinson	0.15	0.09
	Menominee	0.31	0.15
Minnesota	Aitkin	1.37	1.17
	Becker	0.68	0.29
	Beltrami	2.96	2.47
	Benton	0.53	0.26
	Blue Earth	1.02	0.80
	Brown	0.50	0.43
	Carlton	1.18	1.03
	Carver	0.36	0.25
	Cass	0.67	0.46
	Chippewa	0.53	0.02
	Chisago	0.49	0.35
	Clay	0.47	0.20
	Clearwater	2.68	0.65
	Cottonwood	2.70	1.15
	Crow Wing	0.62	0.53
	Dakota	1.12	0.43
	Dodge	0.49	0.41
	Douglas	0.61	0.50
	Faribault	0.87	0.80
	Fillmore	0.65	0.46
	Freeborn	1.21	0.70
	Goodhue	0.47	0.30
	Grant	R	R
	Hennepin	0.37	0.28
	Houston	0.74	0.51
	Hubbard	0.47	0.26
	Isanti	1.15	0.23
	Jackson	R	R
	Kanabec	0.81	0.39
	Kandiyohi	0.56	0.13

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges ----- (\$/cwt.) -----
Minnesota (continued)			
	Koochiching	R	R
	Lac Qui Parle	0.35	0.19
	Le Sueur	0.57	0.37
	Lincoln	0.81	0.58
	Lyon	0.70	0.59
	Mahnomen	0.30	0.20
	Marshall	0.61	0.32
	Martin	1.10	0.99
	McLeod	0.56	0.32
	Meeker	0.44	0.17
	Mille Lacs	0.74	0.44
	Morrison	0.54	0.22
	Mower	0.97	0.63
	Murray	0.76	0.58
	Nicollet	0.47	0.35
	Nobles	0.78	0.62
	Norman	0.79	0.09
	Olmsted	0.51	0.40
	Otter Tail	0.59	0.32
	Pennington	R	R
	Pine	0.93	0.39
	Pipestone	0.65	0.75
	Polk	1.22	0.39
	Pope	0.48	0.21
	Ramsey	R	R
	Red Lake	0.15	0.13
	Redwood	0.78	0.68
	Renville	0.59	0.22
	Rice	0.63	0.45
	Rock	0.93	0.39
	Roseau	1.01	1.07
	Scott	0.45	0.41
	Sherburne	0.64	0.41
	Sibley	0.46	0.23
	St. Louis	0.56	0.17
	Stearns	0.41	0.26
	Steele	0.65	0.57
	Stevens	0.53	0.06
	Swift	0.77	0.19
	Todd	0.58	0.29
	Traverse	R	R

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges
Minnesota (continued)			
	Wabasha	0.33	0.19
	Wadena	0.55	0.34
	Waseca	1.00	0.82
	Washington	0.48	0.29
	Watonwan	0.56	0.32
	Winona	0.40	0.35
	Wright	0.46	0.23
	Yellow Medicine	0.98	0.90
North Dakota			
	Barnes	1.23	0.17
	Burleigh	R	R
	Cass	R	R
	Emmons	0.92	0.97
	Foster	R	R
	Grant	R	R
	Hettinger	R	R
	Kidder	R	R
	La Moure	1.32	1.44
	Logan	R	R
	McHenry	R	R
	McIntosh	0.95	0.34
	Morton	1.72	0.83
	Nelson	R	R
	Ransom	R	R
	Richland	R	R
	Sargent	R	R
	Stark	1.15	0.91
	Stutsman	1.32	1.23
	Walsh	R	R
South Dakota			
	Beadle	1.45	0.64
	Brookings	0.61	0.29
	Brown	1.35	0.20
	Campbell	R	R
	Clark	R	R
	Codington	0.70	0.25
	Day	1.39	0.51
	Deuel	1.00	0.22
	Dewey	R	R
	Edmunds	R	R
	Faulk	R	R

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges ----- (\$/cwt.) -----	Weighted Average Hauling Charges ----- (\$/cwt.) -----
South Dakota	Grant	0.26	0.13
	Hamlin	0.48	0.25
	Hand	R	R
	Hanson	R	R
	Kingsbury	0.71	0.68
	Lake	0.58	0.40
	Lincoln	R	R
	Marshall	0.64	0.22
	McCook	0.61	0.84
	McPherson	R	R
	Minnehaha	0.57	0.61
	Moody	1.00	0.44
	Roberts	0.71	0.20
	Sanborn	R	R
	Spink	R	R
Turner	0.16	0.01	
Wisconsin	Adams	0.37	0.01
	Ashland	0.60	0.42
	Barron	0.61	0.30
	Bayfield	0.84	0.62
	Brown	0.24	0.15
	Buffalo	0.59	0.44
	Burnett	0.31	0.15
	Calumet	0.25	0.26
	Chippewa	0.47	0.36
	Clark	0.30	0.16
	Columbia	0.43	0.31
	Crawford	0.65	0.54
	Dane	0.39	0.30
	Dodge	0.33	0.28
	Door	0.36	0.17
	Douglas	0.58	0.55
	Dunn	0.52	0.27
	Eau Claire	0.66	0.42
	Florence	0.30	0.25
	Fond du Lac	0.27	0.14
	Forest	R	R
	Grant	0.46	0.36
	Green	0.34	0.25
	Green Lake	0.39	0.16
	Iowa	0.40	0.34

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		-----	-----
		(\$/cwt.)	-----
Wisconsin (continued)			
	Iron	0.97	0.90
	Jackson	0.45	0.24
	Jefferson	0.48	0.22
	Juneau	0.64	0.49
	Kenosha	0.66	0.55
	Kewaunee	0.29	0.10
	La Crosse	0.69	0.50
	Lafayette	0.37	0.33
	Langlade	0.23	0.20
	Lincoln	0.38	0.26
	Manitowoc	0.29	0.19
	Marathon	0.30	0.14
	Marinette	0.30	0.29
	Marquette	0.41	0.22
	Monroe	0.54	0.41
	Oconto	0.30	0.15
	Outagamie	0.23	0.07
	Ozaukee	0.28	0.22
	Pepin	0.35	0.38
	Pierce	0.47	0.35
	Polk	0.57	0.21
	Portage	0.25	0.11
	Price	0.68	0.15
	Racine	0.70	0.40
	Richland	0.61	0.41
	Rock	0.36	0.18
	Rusk	0.75	0.49
	Sauk	0.58	0.44
	Sawyer	0.94	0.50
	Shawano	0.30	0.15
	Sheboygan	0.30	0.29
	St. Croix	0.31	0.29
	Taylor	0.49	0.27
	Trempealeau	0.65	0.42
	Vernon	0.66	0.54
	Walworth	0.48	0.26
	Washburn	0.81	0.61
	Washington	0.30	0.25
	Waukesha	0.66	0.49
	Waupaca	0.30	0.15
	Waushara	0.26	0.07

Appendix

Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2018

State	County	Simple Average	Weighted Average
		Hauling Charges	Hauling Charges
		----- (\$/cwt.) -----	-----
Wisconsin (continued)			
	Winnebago	0.26	0.10
	Wood	0.27	0.12

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