

**MILK HAULING CHARGES IN THE  
UPPER MIDWEST MARKETING AREA  
MAY 2016**



Staff Paper 17-01

Prepared by:  
Corey Freije

February 2017

Federal Milk Market Administrator's Office  
1600 West 82<sup>nd</sup> Street, Suite 200  
Minneapolis, MN 55431-1420

**MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA  
MAY 2016**

Corey Freije

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## TABLE OF CONTENTS

	Page
Introduction .....	1
Analysis by Size Group.....	2
Analysis by State .....	2
Percentage of Milk Deliveries by State .....	5
Average Milk Hauling Charges by Size Range of Producer Delivery .....	6
Average Milk Hauling Charges by State and County .....	9
Analysis of Zero Milk Hauling Charges Producers .....	9
Effects of Zero Hauling Charges on Order-Wide Data .....	11
Summary.....	12
Appendix	

**MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA  
MAY 2016**

Corey Freije<sup>1</sup>

**Introduction**

This study breaks down and categorizes hauling charges based on state, county, and producer size groups for May 2016. The payroll data for producers who were associated with the Upper Midwest Marketing Order were examined. For 2016, 12,813 dairy producers were associated with the market<sup>2</sup>.

---

---

**Table 1**

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

<b>Statistic</b>	<b>2016</b>	<b>2015</b>
Producer Deliveries (pounds)	4,011,759,764	3,825,703,973
Total Hauling Charges (\$)	\$6,888,641.72	\$5,984,118.73
Weighted Average Charges (\$/cwt.)	0.1717	0.1564

---

---

The hauling charges data received by the Federal Order 30 office often represents a flat fee charged by the handler. This 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

---

<sup>1</sup> Corey Freije is an Agricultural Economist with the Market Administrator's Office, Minneapolis, Minnesota. Assisting Dr. Freije was Rachel M. Benecke of the Upper Midwest Market Administrator's office.

<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 2016 of \$0.3263 per cwt., compared to \$0.3131 for 2015. 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.

centers, competition among handlers, and the concentration of dairy farms in the local market.

### Analysis by Size Group

Table 2 presents the simple average hauling charges, total hauling charges, production, number of farms, producer average monthly delivery and weighted average hauling charges for each of ten size groups. Skewness dominates the results in Table 2, with 60% of the milk produced by 10% of the farmers. In addition these largest categories of farmers pay 47% 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 for the Marketing Area for May 2016**

Size	Simple Average Hauling Charges (\$/cwt.)	Total Hauling Charges (\$)	Production (pounds)	Number of Farms	Producer Average Monthly Delivery (pounds)	Weighted Average Hauling Charges (\$/cwt.)
Up to 49,999	\$0.6852	\$406,158.12	73,857,653	2,425	30,457	\$0.5499
50,000 to 99,999	\$0.3059	\$739,596.77	246,142,719	3,323	74,072	\$0.3005
100,000 to 249,999	\$0.2284	\$1,407,542.47	628,396,316	4,082	153,943	\$0.2240
250,000 to 399,999	\$0.1832	\$623,154.06	340,958,226	1,092	312,233	\$0.1828
400,000 to 599,999	\$0.1497	\$446,346.34	296,826,319	606	489,812	\$0.1504
600,000 to 999,999	\$0.1297	\$485,350.36	377,996,428	490	771,421	\$0.1284
1,000,000 to 1,499,999	\$0.1171	\$436,027.35	365,033,413	301	1,212,736	\$0.1194
1,500,000 to 2,499,999	\$0.1376	\$644,091.82	476,968,517	249	1,915,536	\$0.1350
2,500,000 to 4,999,999	\$0.1306	\$724,177.08	544,577,712	162	3,361,591	\$0.1330
5,000,000 or more	\$0.1686	\$976,197.35	661,002,461	83	7,963,885	\$0.1477
<b>Total</b>	<b>\$0.3176</b>	<b>\$6,888,641.72</b>	<b>4,011,759,764</b>	<b>12,813</b>	<b>313,101</b>	<b>\$0.1717</b>

### Analysis by State

Table 3 presents the simple average hauling charges, total hauling charges, production, number of farms, producer average monthly delivery, and weighted average hauling charges for each state comprising the order. Analyzing hauling charges by state has

previously led Federal Order 30 staff to hypothesize that non-scale factors such as distance to plants, and population centers, and competition among handlers along with the predominance of dairying in a market affect hauling charges. These factors have been tested and their relevance supported in earlier papers.

**Table 3**

**Average Producer Delivery, by State and for the Marketing Area for May 2016**

<b>State</b>	<b>Simple Average Hauling Charges</b>	<b>Total Hauling Charges</b>	<b>Production</b>	<b>Number of Farms</b>	<b>Producer Average Monthly Delivery</b>	<b>Weighted Average Hauling Charges</b>
	<b>(\$/cwt.)</b>	<b>(\$)</b>	<b>(pounds)</b>		<b>(pounds)</b>	<b>(\$)</b>
Illinois	\$0.4096	\$147,762.24	57,729,777	246	234,674	\$0.2560
Iowa	\$0.4190	\$945,654.86	346,986,518	864	401,605	\$0.2725
Michigan UP	\$0.3096	\$35,048.48	21,398,692	35	611,391	\$0.1638
Minnesota	\$0.3892	\$1,655,031.01	827,886,326	3,070	269,670	\$0.1999
North Dakota	\$0.9593	\$100,466.51	24,139,784	64	377,184	\$0.4162
South Dakota	\$0.5383	\$537,551.44	192,267,564	153	1,256,651	\$0.2796
Wisconsin	\$0.2694	\$3,467,127.18	2,541,351,103	8,381	303,228	\$0.1364
<b>Total</b>	<b>\$0.3176</b>	<b>\$6,888,641.72</b>	<b>4,011,759,764</b>	<b>12,813</b>	<b>313,101</b>	<b>\$0.1717</b>

As Table 3 indicates, North Dakota has the highest average hauling charge with a low number of farms, the longest distance from high demand areas, and less handler competition. Wisconsin in contrast has the lowest 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 don't 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 Charges<sup>3</sup>**

Year	May Fuel Price (\$/gallon)	% Change from Previous Year (%)	May Average Hauling Charges (\$/cwt)	% Change from Previous Year (%)
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%

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 have not only 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 first four size classes the percentage of hauling charges is greater than their percentage of total production. For the latter six classes their percentage of hauling charges is smaller than their percentage of production. The commonly accepted explanation for this distribution of charges is that hauling costs are higher for smaller farms

<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.

given the increased number of stops in order to fill out a load. Chart 3, on page 8, builds on Chart 2's distribution to show that the average hauling charges and the average milk production are inversely related.

### Percentage of Milk Deliveries by State

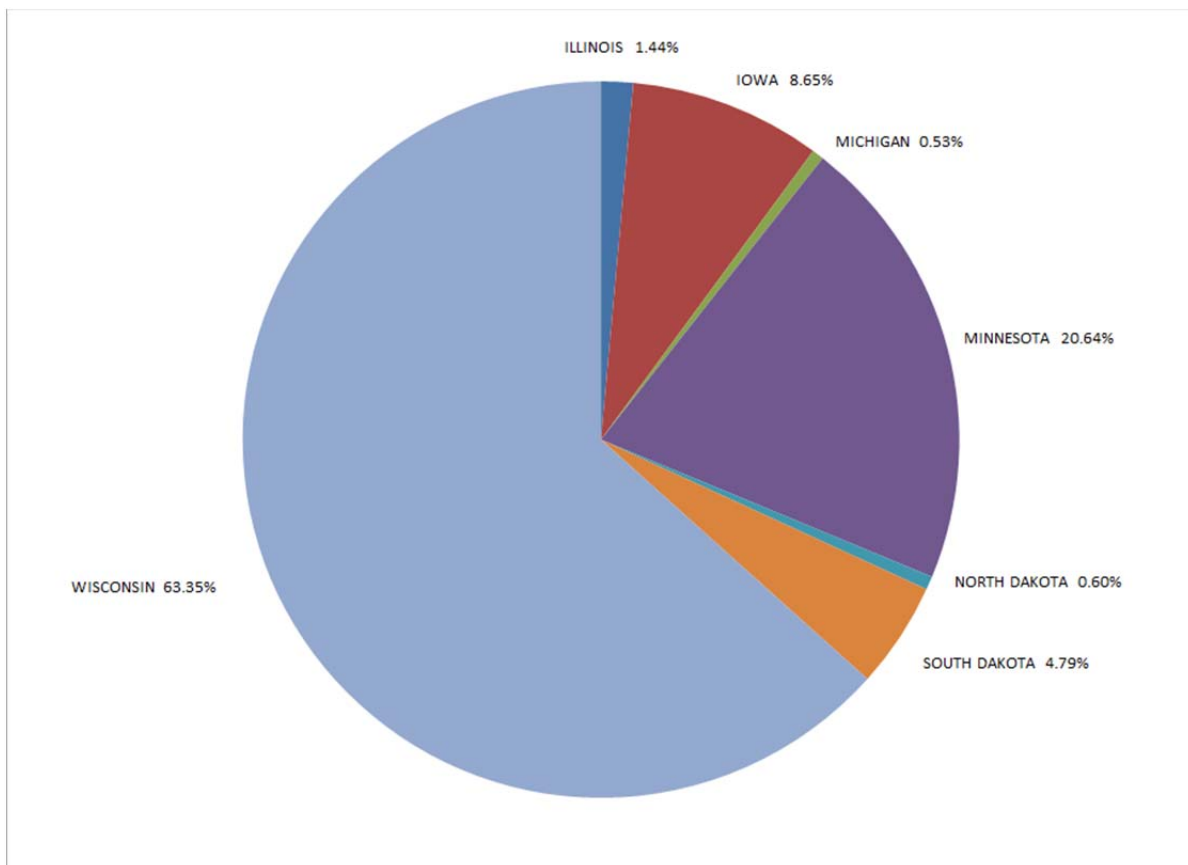
In May 2015, dairy producers from three states delivered the majority of the milk associated with the Upper Midwest Order. The State of Wisconsin producers delivered the most milk of any of the states, by supplying 63.35 percent of the total milk volume associated with the market. Producers from the States of 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 2016



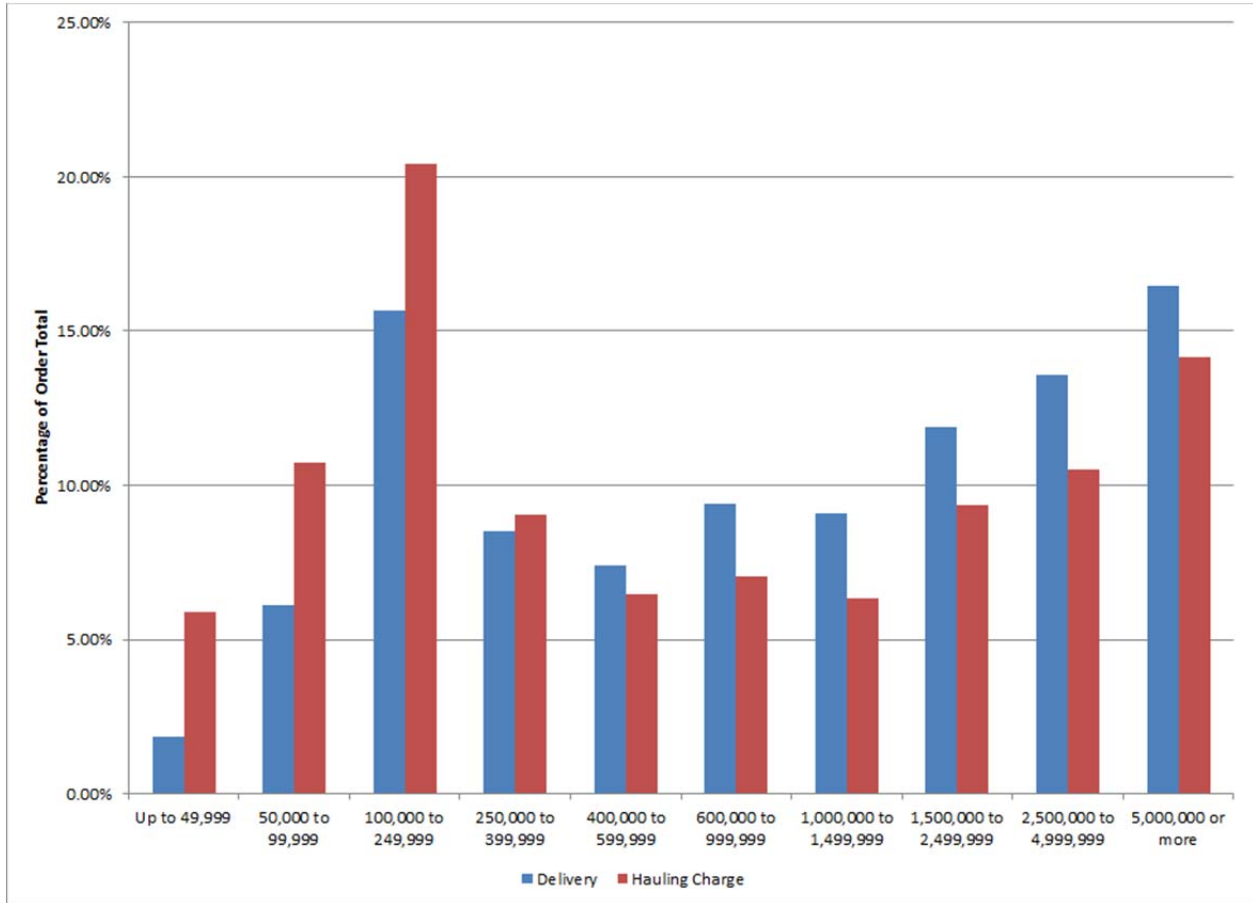


---

---

## Chart 2

Percent of Hauling Charges and Producer Delivery for May 2016



---

---

### 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.

The data in Table 5 breaks down the market's dairy producers 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 of Monthly Producer Deliveries, by State, for May 2016 (\$ per cwt.)**

Size	Illinois	Iowa	Michigan	Minnesota	North Dakota	South Dakota	Wisconsin	Average
Up to 49,999	\$0.6217	\$0.6894	R	\$0.6202	\$1.2417	\$0.9937	\$0.4946	\$0.5499
50,000 to 99,999	\$0.3880	\$0.4929	R	\$0.3862	\$0.9434	\$0.6133	\$0.2458	\$0.3005
100,000 to 249,999	\$0.3720	\$0.3150	\$0.3687	\$0.2950	\$0.7436	\$0.5894	\$0.1690	\$0.2240
250,000 to 399,999	\$0.3426	\$0.2389	\$0.2061	\$0.2228	\$0.7752	\$0.5500	\$0.1391	\$0.1828
400,000 to 599,999	\$0.2165	\$0.2222	\$0.2892	\$0.1467	R	\$0.4870	\$0.1266	\$0.1504
600,000 to 999,999	\$0.1503	\$0.1991	\$0.1182	\$0.1505	R	\$0.2942	\$0.1045	\$0.1284
1,000,000 to 1,499,999	\$0.1986	\$0.1860	R	\$0.1082	R	\$0.4024	\$0.1092	\$0.1194
1,500,000 to 2,499,999	\$0.1230	\$0.1371	R	\$0.1447	\$0.2461	\$0.2433	\$0.1248	\$0.1350
2,500,000 to 4,999,999	R	\$0.3673	R	\$0.1365	R	\$0.2386	\$0.0792	\$0.1330
5,000,000 or more	R	\$0.2534	R	\$0.0873	R	\$0.2417	\$0.1081	\$0.1477
<b>Average</b>	<b>\$0.2560</b>	<b>\$0.2725</b>	<b>\$0.1638</b>	<b>\$0.1999</b>	<b>\$0.4162</b>	<b>\$0.2796</b>	<b>\$0.1364</b>	<b>\$0.1717</b>

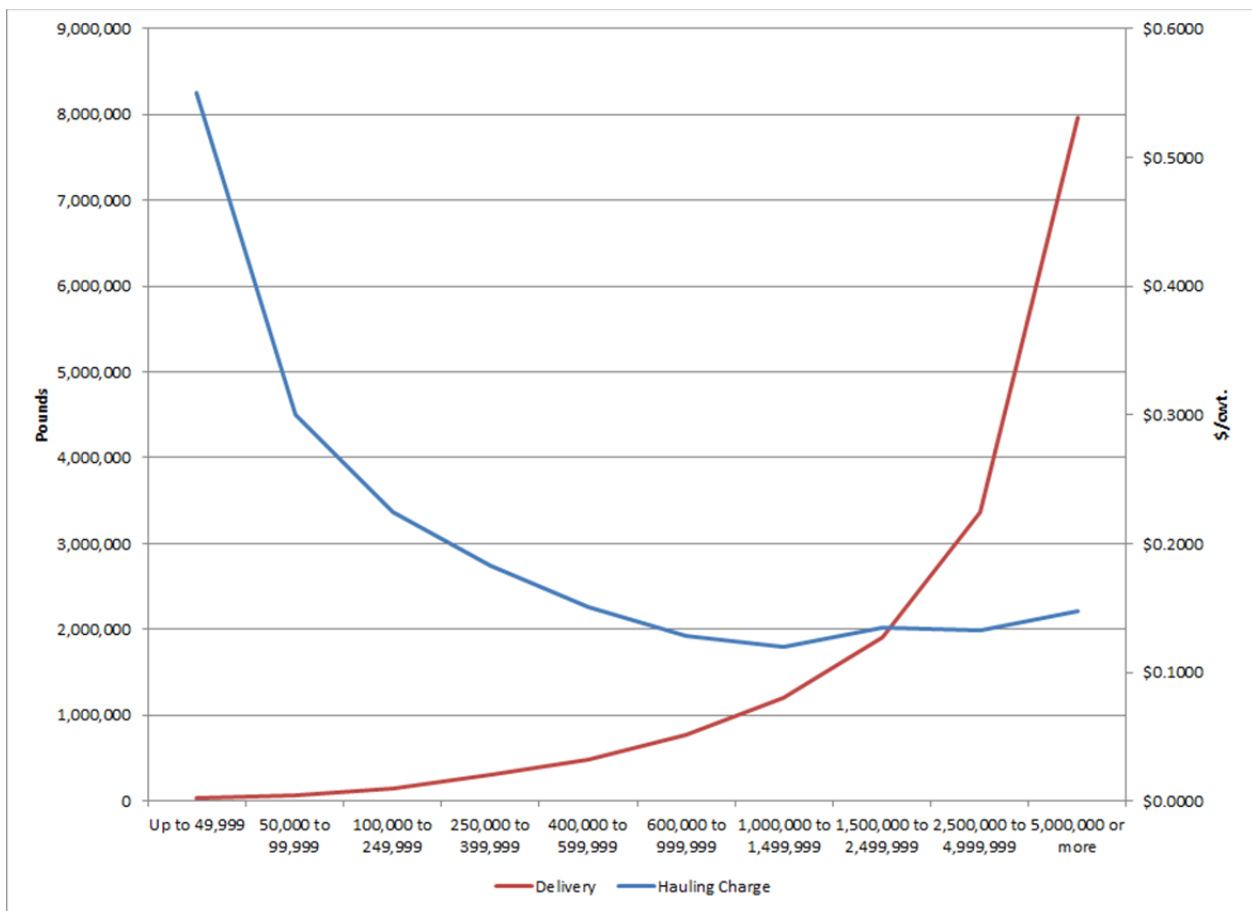
R = Restricted, fewer than three producers.

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, his or her hauling charge per hundredweight will automatically decrease. This increase/decrease relationship is apparent when examining most of the data shown in Table 5. Further, this study finds that 83.9 percent of the producer milk is procured from the States of 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. The detail in Chart 3 shows the average hauling charges, by size range, for all producer milk associated with the market, for May 2016.

**Chart 3**

**Producer Delivery versus Average Hauling Charges for May 2016**



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, 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.

---

---

**Table 6****Producers with Zero Hauling Charges by Size Distribution and Production for May 2016**

<b>Size</b>	<b>Production</b>	<b>Number of Farms</b>	<b>Producer Average Monthly Delivery</b>
	<b>(pounds)</b>		<b>(pounds)</b>
Up to 49,999	4,132,135	131	31,543
50,000 to 99,999	8,559,786	120	71,332
100,000 to 249,999	14,522,871	97	149,720
250,000 to 399,999	5,785,526	19	304,501
400,000 to 599,999	7,333,989	15	488,933
600,000 to 999,999	32,848,224	41	801,176
1,000,000 to 1,499,999	57,947,258	48	1,207,235
1,500,000 to 2,499,999	81,126,163	42	1,931,575
2,500,000 to 4,999,999	164,384,437	47	3,497,541
5,000,000 or more	240,028,217	29	8,276,835
<b>Total</b>	<b>616,668,606</b>	<b>589</b>	<b>1,046,976</b>

---

---

**Table 7****Producers with Zero Hauling Charges by State and Production for May 2016**

<b>State</b>	<b>Production</b>	<b>Number of Farms</b>	<b>Producer Average Monthly Delivery</b>
	<b>(pounds)</b>		<b>(pounds)</b>
Illinois	8,782,898	14	627,350
Iowa	45,338,557	7	6,476,937
Minnesota	26,027,918	86	302,650
North Dakota & Wisconsin	536,519,233	482	1,113,110
<b>Total</b>	<b>616,668,606</b>	<b>589</b>	<b>1,046,976</b>

---

---

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.

### 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 616,668,606 pounds in 2016. 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  $\$6,888,641.72 / 3,395,091,158 * 100$  which equals \$0.2029. The weighted average hauling charges per hundredweight increases from \$0.1717 to \$0.2029. 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 2016**

Size	Total Hauling Charges	Production	Production Without Zeros	Weighted Charges Without Zeros
	(\$)	(pounds)	(pounds)	(\$/cwt.)
Up to 49,999	\$406,158.12	73,857,653	69,725,518	\$0.5825
50,000 to 99,999	\$739,596.77	246,142,719	237,582,933	\$0.3113
100,000 to 249,999	\$1,407,542.47	628,396,316	613,873,445	\$0.2293
250,000 to 399,999	\$623,154.06	340,958,226	335,172,700	\$0.1859
400,000 to 599,999	\$446,346.34	296,826,319	289,492,330	\$0.1542
600,000 to 999,999	\$485,350.36	377,996,428	345,148,204	\$0.1406
1,000,000 to 1,499,999	\$436,027.35	365,033,413	307,086,155	\$0.1420
1,500,000 to 2,499,999	\$644,091.82	476,968,517	395,842,354	\$0.1627
2,500,000 to 4,999,999	\$724,177.08	544,577,712	380,193,275	\$0.1905
5,000,000 or more	\$976,197.35	661,002,461	420,974,244	\$0.2319
<b>Total</b>	<b>\$6,888,641.72</b>	<b>4,011,759,764</b>	<b>3,395,091,158</b>	<b>\$0.2029</b>

---

---

**Table 9**

**Average Hauling Charges, by State, with Zero Charges Removed  
for May 2016**

<b>State</b>	<b>Total Hauling Charges</b>	<b>Production</b>	<b>Production Without Zeros</b>	<b>Weighted Charges Without Zeros</b>
	(\$)	(pounds)	(pounds)	(\$/cwt.)
Illinois	\$147,762.24	57,729,777	48,946,879	\$0.3019
Iowa	\$945,654.86	346,986,518	301,647,961	\$0.3135
Michigan UP	\$35,048.48	21,398,692	21,398,692	\$0.1638
Minnesota	\$1,655,031.01	827,886,326	801,858,408	\$0.2064
South Dakota	\$537,551.44	192,267,564	192,267,564	\$0.2796
North Dakota & Wisconsin	\$3,567,593.69	2,565,490,887	2,028,971,654	\$0.1758
<b>Total</b>	<b>\$6,888,641.72</b>	<b>4,011,759,764</b>	<b>3,395,091,158</b>	<b>\$0.2029</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 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 U.P. of Michigan and distant counties in Minnesota and Wisconsin. Lastly, the weighted average hauling charges for Federal Order 30 shows 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 2016

State	County	Simple Average	Weighted Average
		Hauling Charges	Hauling Charges
		----- (Dollars Per Cwt.) -----	
Illinois	Adams	R	R
	Boone	\$0.44	\$0.34
	Brown	R	R
	Carroll	\$0.21	\$0.08
	De Kalb	\$0.35	\$0.18
	Douglas	R	R
	Henderson	R	R
	Jo Daviess	\$0.28	\$0.16
	Kane	\$0.36	\$0.37
	Kankakee	R	R
	Lake	R	R
	Lee	R	R
	McHenry	\$0.36	\$0.30
	Ogle	\$0.60	\$0.52
	Pike	R	R
	Rock Island	\$0.15	\$0.07
	Stephenson	\$0.34	\$0.22
	Washington	R	R
	Whiteside	\$0.58	\$0.24
	Will	\$1.76	\$1.17
Winnebago	\$0.58	\$0.55	
Iowa	Allamakee	\$0.48	\$0.22
	Appanoose	R	R
	Benton	\$0.27	\$0.22
	Bremer	\$0.58	\$0.48
	Buchanan	\$0.77	\$0.45
	Butler	\$0.48	\$0.29
	Cedar	\$0.50	\$0.20
	Cerro Gordo	R	R
	Cherokee	R	R
	Chickasaw	\$0.35	\$0.17
	Clarke	R	R
	Clay	R	R
	Clayton	\$0.38	\$0.23
	Clinton	\$0.58	\$0.29
	Crawford	R	R
	Davis	\$0.56	\$0.39
	Decatur	R	R
	Delaware	\$0.44	\$0.41
	Des Moines	R	R

---



---

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges ----- (Dollars Per Cwt.) -----	Weighted Average Hauling Charges
<b>Iowa (continued)</b>	Dickinson	R	R
	Dubuque	\$0.30	\$0.22
	Emmet	R	R
	Fayette	\$0.25	\$0.18
	Floyd	\$0.20	\$0.18
	Franklin	R	R
	Grundy	R	R
	Hancock	R	R
	Hardin	\$0.75	\$0.70
	Henry	\$0.80	\$0.13
	Howard	\$0.25	\$0.11
	Humboldt	R	R
	Ida	R	R
	Iowa	R	R
	Jackson	\$0.36	\$0.16
	Jasper	\$0.47	\$0.22
	Johnson	\$0.63	\$0.62
	Jones	\$0.30	\$0.20
	Keokuk	R	R
	Kossuth	\$0.95	\$0.55
	Linn	\$0.32	\$0.13
	Louisa	R	R
	Lucas	R	R
	Lyon	\$0.34	\$0.18
	Mahaska	\$0.32	\$0.25
	Marion	\$0.30	\$0.14
	Marshall	R	R
	Mitchell	\$0.35	\$0.28
	Monroe	\$0.33	\$0.07
	O'Brien	\$0.99	\$0.07
	Osceola	\$0.56	\$0.87
	Palo Alto	\$0.82	\$0.75
	Plymouth	R	R
	Pocahontas	R	R
Polk	R	R	
Poweshiek	\$0.29	\$0.62	
Sac	R	R	
Scott	\$0.84	\$0.62	
Sioux	\$0.35	\$0.22	
Story	R	R	
Tama	\$1.10	\$0.92	
Van Buren	\$0.75	\$0.38	

---



---

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges ----- (Dollars Per Cwt.) -----	Weighted Average Hauling Charges
<b>Iowa (continued)</b>	Wapello	R	R
	Warren	\$0.46	\$0.30
	Washington	\$0.42	\$0.35
	Wayne	\$0.53	\$0.40
	Winnebago	R	R
	Winneshiek	\$0.31	\$0.23
	Woodbury	R	R
	Worth	\$1.26	\$1.27
<b>Michigan</b>	Delta	\$0.32	\$0.29
	Dickinson	\$0.20	\$0.13
	Marquette	R	R
	Menominee	\$0.33	\$0.16
<b>Minnesota</b>	Aitkin	\$0.56	\$0.50
	Anoka	R	R
	Becker	\$0.58	\$0.23
	Beltrami	\$0.44	\$0.31
	Benton	\$0.34	\$0.22
	Blue Earth	\$0.52	\$0.34
	Brown	\$0.33	\$0.24
	Carlton	\$0.57	\$0.42
	Carver	\$0.41	\$0.31
	Cass	\$0.63	\$0.35
	Chippewa	\$0.26	\$0.19
	Chisago	\$0.25	\$0.18
	Clay	\$0.49	\$0.21
	Clearwater	\$1.49	\$0.48
	Cottonwood	\$0.83	\$0.53
	Crow Wing	\$0.36	\$0.23
	Dakota	\$0.61	\$0.21
	Dodge	\$0.45	\$0.14
	Douglas	\$0.38	\$0.30
	Faribault	\$0.33	\$0.14
	Fillmore	\$0.40	\$0.21
	Freeborn	\$0.31	\$0.18
	Goodhue	\$0.34	\$0.22
	Grant	\$0.30	\$0.11
	Hennepin	\$0.32	\$0.28
	Houston	\$0.34	\$0.21
	Hubbard	\$0.49	\$0.30
Isanti	\$0.63	\$0.10	

---



---

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges ----- (Dollars Per Cwt.) -----	Weighted Average Hauling Charges
<b>Minnesota (continued)</b>			
	Jackson	R	R
	Kanabec	\$0.43	\$0.20
	Kandiyohi	\$0.40	\$0.16
	Koochiching	\$0.94	\$0.53
	Lac Qui Parle	\$0.24	\$0.13
	Le Sueur	\$0.41	\$0.26
	Lincoln	\$0.50	\$0.39
	Lyon	\$0.57	\$0.60
	Mahnomen	\$0.89	\$0.13
	Marshall	\$0.51	\$0.30
	Martin	\$0.51	\$0.54
	McLeod	\$0.67	\$0.24
	Meeker	\$0.33	\$0.12
	Mille Lacs	\$0.43	\$0.31
	Morrison	\$0.34	\$0.14
	Mower	\$0.34	\$0.23
	Murray	\$0.39	\$0.25
	Nicollet	\$0.42	\$0.29
	Nobles	\$0.44	\$0.33
	Norman	\$0.83	\$0.05
	Olmsted	\$0.33	\$0.20
	Otter Tail	\$0.43	\$0.26
	Pennington	R	R
	Pine	\$0.37	\$0.20
	Pipestone	\$0.43	\$0.48
	Polk	\$1.58	\$0.60
	Pope	\$0.30	\$0.16
	Ramsey	R	R
	Red Lake	\$0.13	\$0.11
	Redwood	\$0.33	\$0.29
	Renville	\$0.33	\$0.14
	Rice	\$0.50	\$0.36
	Rock	\$0.37	\$0.18
	Roseau	\$1.38	\$0.53
	Scott	\$0.39	\$0.28
	Sherburne	\$0.29	\$0.15
	Sibley	\$0.41	\$0.22
	St. Louis	\$0.35	\$0.14
	Stearns	\$0.31	\$0.18
	Steele	\$0.38	\$0.28
	Stevens	\$0.21	\$0.06

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Minnesota (continued)</b>			
	Swift	\$0.35	\$0.10
	Todd	\$0.42	\$0.21
	Traverse	R	R
	Wabasha	\$0.31	\$0.15
	Wadena	\$0.41	\$0.27
	Waseca	\$0.41	\$0.29
	Washington	\$0.39	\$0.26
	Watonwan	\$0.32	\$0.25
	Wilkin	R	R
	Winona	\$0.24	\$0.17
	Wright	\$0.39	\$0.18
	Yellow Medicine	\$0.42	\$0.46
<b>North Dakota</b>			
	Barnes	\$0.92	\$0.14
	Burleigh	R	R
	Cass	R	R
	Dickey	R	R
	Emmons	\$0.63	\$0.61
	Foster	R	R
	Grand Forks	R	R
	Grant	R	R
	Hettinger	\$1.41	\$1.07
	Kidder	R	R
	La Moure	R	R
	Logan	\$0.74	\$0.77
	McHenry	R	R
	McIntosh	\$0.74	\$0.39
	Morton	\$1.23	\$0.72
	Nelson	R	R
	Ransom	R	R
	Richland	R	R
	Sargent	R	R
	Sioux	R	R
	Stark	\$1.16	\$0.89
	Stutsman	\$1.71	\$0.77
	Walsh	R	R
<b>South Dakota</b>			
	Beadle	\$0.97	\$0.60
	Brookings	\$0.48	\$0.28
	Brown	\$0.74	\$0.17
	Campbell	R	R

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges ----- (Dollars Per Cwt.) -----	Weighted Average Hauling Charges
<b>South Dakota</b>	Clark	R	R
	Codington	\$0.45	\$0.24
	Davison	R	R
	Day	\$0.71	\$0.33
	Deuel	\$0.47	\$0.21
	Dewey	R	R
	Edmunds	R	R
	Faulk	\$0.71	\$0.73
	Grant	\$0.29	\$0.14
	Hamlin	\$0.43	\$0.20
	Hand	R	R
	Hanson	R	R
	Kingsbury	\$0.51	\$0.48
	Lake	\$0.51	\$0.29
	Lincoln	R	R
	Marshall	\$0.28	\$0.15
	McCook	\$0.86	\$0.95
	McPherson	R	R
	Minnehaha	\$0.46	\$0.57
	Moody	\$0.50	\$0.38
Roberts	\$0.55	\$0.18	
Sanborn	R	R	
Spink	R	R	
Turner	\$0.42	0.05	
<b>Wisconsin</b>	Adams	\$0.35	\$0.10
	Ashland	\$0.70	\$0.12
	Barron	\$0.35	\$0.15
	Bayfield	\$0.49	\$0.34
	Brown	\$0.18	\$0.10
	Buffalo	\$0.30	\$0.09
	Burnett	\$0.28	\$0.16
	Calumet	\$0.23	\$0.23
	Chippewa	\$0.24	\$0.11
	Clark	\$0.31	\$0.11
	Columbia	\$0.30	\$0.20
	Crawford	\$0.42	\$0.26
	Dane	\$0.23	\$0.16
	Dodge	\$0.25	\$0.18
	Door	\$0.30	\$0.14
	Douglas	\$0.43	\$0.35
	Dunn	\$0.28	\$0.09

---



---

---



---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average Hauling Charges	Weighted Average Hauling Charges
		----- (Dollars Per Cwt.) -----	----- (Dollars Per Cwt.) -----
<b>Wisconsin (continued)</b>			
	Eau Claire	\$0.80	\$0.19
	Florence	\$0.25	\$0.15
	Fond du Lac	\$0.20	\$0.06
	Forest	R	R
	Grant	\$0.27	\$0.18
	Green	\$0.26	\$0.16
	Green Lake	\$0.36	\$0.20
	Iowa	\$0.23	\$0.15
	Iron	R	R
	Jackson	\$0.27	\$0.08
	Jefferson	\$0.31	\$0.14
	Juneau	\$0.25	\$0.28
	Kenosha	\$0.38	\$0.21
	Kewaunee	\$0.24	\$0.08
	La Crosse	\$0.30	\$0.14
	Lafayette	\$0.26	\$0.19
	Langlade	\$0.18	\$0.10
	Lincoln	\$0.17	\$0.09
	Manitowoc	\$0.24	\$0.17
	Marathon	\$0.14	\$0.07
	Marinette	\$0.20	\$0.12
	Marquette	\$0.30	\$0.25
	Milwaukee	R	R
	Monroe	\$0.28	\$0.22
	Oconto	\$0.23	\$0.10
	Oneida	R	R
	Outagamie	\$0.24	\$0.09
	Ozaukee	\$0.16	\$0.06
	Pepin	\$0.20	\$0.07
	Pierce	\$0.27	\$0.21
	Polk	\$0.34	\$0.17
	Portage	\$0.19	\$0.07
	Price	\$0.28	\$0.07
	Racine	\$0.37	\$0.18
	Richland	\$0.41	\$0.25
	Rock	\$0.26	\$0.13
	Rusk	\$0.31	\$0.14
	Sauk	\$0.32	\$0.25
	Sawyer	\$0.28	\$0.07
	Shawano	\$0.23	\$0.14
	Sheboygan	\$0.18	\$0.15

---



---

---

---

## Appendix

### Upper Midwest Order Reported Payroll Average Hauling Charges, by State and County for May 2016

State	County	Simple Average	Weighted Average
		Hauling Charges	Hauling Charges
		----- (Dollars Per Cwt.) -----	
<b>Wisconsin (continued)</b>			
	St. Croix	\$0.49	\$0.16
	Taylor	\$0.22	\$0.09
	Trempealeau	\$0.28	\$0.08
	Vernon	\$0.34	\$0.30
	Walworth	\$0.31	\$0.16
	Washburn	\$0.42	\$0.08
	Washington	\$0.18	\$0.08
	Waukesha	\$0.40	\$0.25
	Waupaca	\$0.22	\$0.11
	Waushara	\$0.24	\$0.08
	Winnebago	\$0.23	\$0.08
	Wood	\$0.19	\$0.09

---

---

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