

**MILK HAULING CHARGES IN THE  
UPPER MIDWEST MARKETING AREA  
MAY 2001**



Staff Paper 02-01

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June 2002

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## ABSTRACT

This study investigated the milk hauling charges, to the first point of delivery, for the producers pooled on the Upper Midwest Marketing Area for May 2001. There were 13,753 producers reported as participating in the May 2001 market pool. The data for hauling charges and milk production were obtained from handlers who had submitted producer payrolls to the Market Administrator's office. Comparisons were made between the producer's milk volume and farm location using averages. For the purposes of this analysis, and unless otherwise specified, the "average" hauling rates and/or charges reflect weighted averages. Major findings and conclusions for the producers evaluated in this study are as follows:

- 1) The average hauling charge for producers participating on the Upper Midwest Order was 17.1 cents per hundredweight.
- 2) For the states from which the producer milk was received into this market, California, Idaho, Illinois, Indiana, Iowa, Michigan, Minnesota, Montana, North Dakota, South Dakota and Wisconsin, the average state hauling charge ranged from 7.2 to 54.4 cents per hundredweight.
- 3) In general, the average hauling rate per hundredweight charged decreased as the farm size and/or milk volume increased. However, hauling distances and competition between handlers were also found to be major factors.
- 4) Hauling rates were noticeably higher in most counties located outside fluid milk shed areas and in areas located the furthest distance from major Class I fluid markets. The highest average hauling charges were found in perimeter counties such as Howard County in Iowa, Itasca, Kittson, Lake of the Woods, Polk and Roseau counties in Minnesota, and the majority of counties delivering milk from North Dakota. The average hauling charges for each of those counties exceeded 50 cents per hundredweight.
- 5) Some of the lowest hauling charges were found in the Illinois counties of Boone, De Kalb, Stephenson and Winnebago, the Iowa county of Winneshiek, the Minnesota county of Isanti, the South Dakota county of Marshall and the Wisconsin counties of Clark, Dane, Fond du Lac, Jackson, Marquette, Price, Sauk, Walworth and Wood. The average hauling charges for each of these counties was found to be less than 8 cents per hundredweight.
- 6) The majority of handlers in the Upper Midwest Order charged producers a flat hauling value regardless of the volume of milk being marketed. When handlers charge a flat rate, the actual hauling charge per hundredweight declines as the producer's milk volume increases. This study found that a specific county's average hauling charge was greatly influenced by its farm composition regarding farm sizes.
- 7) The data from this study showed producers from three states supplied more than 90% of the total milk pooled on this order. The Wisconsin producers supplied 49%, Minnesota producers supplied 28% and California producers supplied 15% of the order's producer milk.

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# **MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA MAY 2001**

Leonard J. Barske<sup>1</sup>

## **I. INTRODUCTION**

For May 2001, Upper Midwest Marketing Order bulk milk hauling charges, to the first point of delivery, were examined for more than 13,753 dairy producers whose milk was pooled on the market. This study included a small number of producers whose milk was not pooled because of unusual price relationships and/or performance requirements, or partially pooled on a different Federal order. For feasibility purposes, most of the data pertaining to those producers was simply included in this study.

The hauling charges included in this study consisted of hauling deductions shown on the producer payrolls submitted, by reporting handlers, to this Market Administrator's office. The hauling charges do not necessarily reflect the actual cost of the hauling. In many cases, handlers or cooperatives have subsidized milk hauling costs or absorbed additional hauling costs as operating expenses. This study broke down and categorized the hauling charges based on state, county, and producer size groups.

For this hauling study, the month of May 2001 was chosen because May historically represents a period with high supplies of producer milk and rather minimum Class I demands. The source of all data used for this study, including producer receipts and payroll information, was derived from pooling handler records for May 2001.

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<sup>1</sup> Leonard J. Barske is an Agricultural Economist with the Market Administrator's Office, Minneapolis, Minnesota.

## II. AVERAGE MILK HAULING CHARGES - FOR THE MILK PROCUREMENT AREA AND BY STATE

In May of 2001, the weighted average hauling charge for all producer milk pooled on the Upper Midwest market was 17.1 cents per hundredweight. This study revealed that only the States of Illinois and Wisconsin had less than the market's average hauling charge. The average hauling charges for producers located in these two states were 7.2 and 12.9 cents per hundredweight, respectively.

The study revealed that North Dakota had the highest average hauling charge of any state with producer milk pooled on the Upper Midwest Marketing Area. The average hauling rate for dairy producers pooled on the Upper Midwest market for North Dakota was 54.4 cents per hundredweight. (See Table 1.)

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**Table 1**

**Average Hauling Charge, by State and for the Marketing Area for May 2001**

<u>State</u>	<u>Average Hauling Charge</u> (Cents Per Cwt.)
California	25.2
Idaho	26.3
Illinois	7.2
Indiana	*
Iowa	29.0
Michigan	18.3
Minnesota	19.4
Montana	*
North Dakota	54.4
South Dakota	27.7
Wisconsin	<u>12.9</u>
<b>Simple Average</b>	<b>24.5</b>
<b>Weighted Market Average</b>	<b>17.1</b>

\* Restricted

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**III. AVERAGE PRODUCER MILK DELIVERIES - FOR THE MILK PROCUREMENT AREA AND BY STATE**

This study found that the individual producer’s milk volume actually becomes an important factor in the producer’s average hauling charge on a per hundredweight basis. In May of 2001, the Upper Midwest monthly market average producer milk delivery was 116,000 pounds, or about 3,750 pounds per day. The average producer in the States of Michigan, Minnesota, North Dakota and Wisconsin had less than the market’s average producer monthly milk deliveries. The average delivery of milk for producers located in these four states was 76,000, 103,000, 92,000 and 100,000 pounds, respectively. This study also revealed that the States of California, Idaho and Iowa had by far the highest average producer milk deliveries pooled on the Upper Midwest Marketing Area. The average delivery for these states was 860,000, 653,000 and 365,000 pounds, respectively. The May 2001 average producer milk volume, by state, is detailed in Table 2.

**Table 2**

**Average Producer Delivery, by State and for the Marketing Area for May 2001**

<u>State</u>	<u>Producer Average Monthly Delivery</u> (Pounds in Thousands)
California	860
Idaho	653
Illinois	120
Indiana	*
Iowa	365
Michigan	76
Minnesota	103
Montana	*
North Dakota	92
South Dakota	195
Wisconsin	<u>100</u>
<b>Simple Average</b>	<b>285</b>
<b>Weighted Market Average</b>	<b>116</b>
<b>Median</b>	<b>68</b>

\* Restricted

As shown above, this study revealed that the Upper Midwest market median producer milk delivery was 68,000 pounds. The median, in this case, represents the middle volume of milk marketed by producers in the distribution of all dairy producers with milk pooled on the market. In this scenario, the median falls roughly 48,000 pounds below the market average of 116,000 pounds. In this case, the median reflects the fact that the milk production of a large number of small farmers is offset by the production of only a few large farms. About 50 percent of the dairy producers produce less than 68,000 pounds of milk.

#### IV. PERCENTAGE OF PRODUCER MILK DELIVERIES BY STATE

In May 2001, dairy producers from three states delivered the majority of the milk pooled on the Upper Midwest Order. The State of Wisconsin producers delivered the most milk of any of the states, by supplying 49 percent of the total milk volume pooled. Producers from the States of Minnesota and California were second and third in milk volume supplied to the order, respectively. The volume of producer milk delivered by any of the remaining states (individually) was less than 2.5 percent. (See Table 3 and Chart 1.)

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**Table 3**

**Producer Milk Deliveries, by State and for the Marketing Area for May 2001**

<u>State</u>	<u>Producer Deliveries</u> (Market Share)
California	15.0%
Idaho	2.4%
Illinois	2.1%
Indiana	*
Iowa	0.6%
Michigan	(less than 0.1%)
Minnesota	28.1%
Montana	*
North Dakota	0.8%
South Dakota	1.9%
Wisconsin	49.0%

\* Restricted

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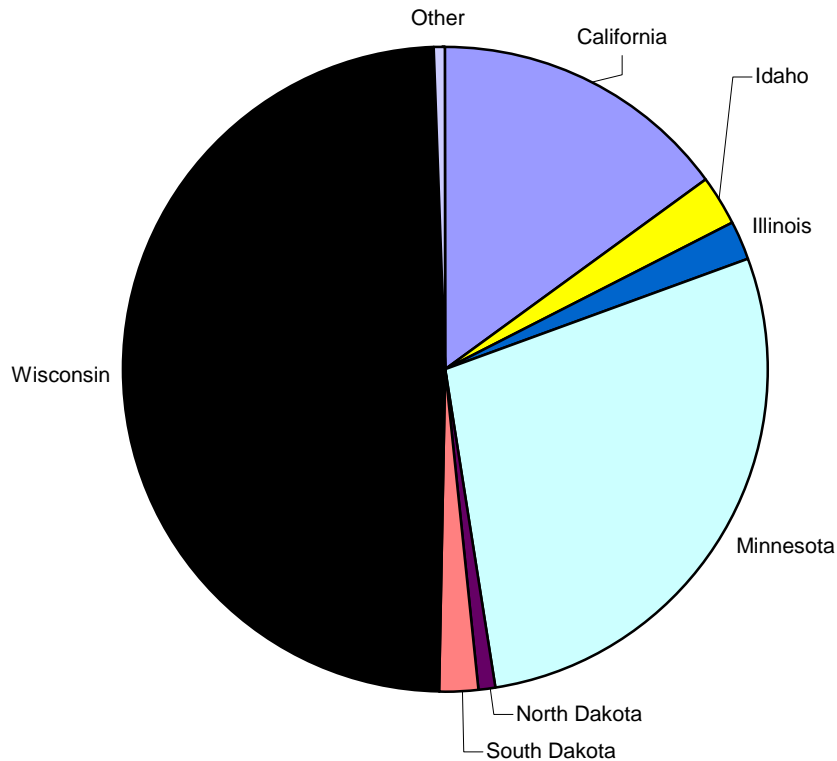


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## Chart 1

Percentage of Producer Milk Deliveries, by State for May 2001



Other = Indiana, Iowa, Michigan and Montana.

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### V. PERCENT OF PRODUCERS ON THE MARKET BY STATE

In this study, producer numbers were used to calculate the average producer farm size, regarding milk volumes, and the total market share of producers for each state. In May of 2001, there were 13,753 producers pooled on the Upper Midwest Marketing Order. The State of Wisconsin had the most producers of any state, with 59.6 percent of the total producers delivering to the market. The State of Minnesota had the second highest number of producers with 33.2 percent. The study found that each of the remaining states had only a minimum number or percentage of producers on the market. (See Table 4 and Chart 2.)

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**Table 4**

**Percent of Producers Making Deliveries, by State and for the Marketing Area  
for May 2001**

<u>State</u>	<u>Producers Making Deliveries (Market Share)</u>
California	2.1%
Idaho	0.4%
Illinois	2.1%
Indiana	*
Iowa	0.2%
Michigan	(less than 0.1%)
Minnesota	33.2%
Montana	*
North Dakota	1.1%
South Dakota	1.1%
Wisconsin	59.6%

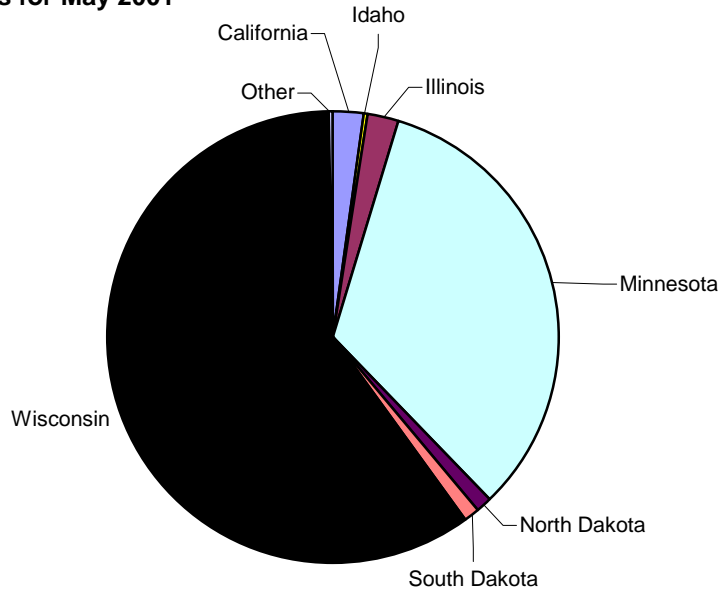
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**Chart 2**

**Percent of Producers for May 2001**



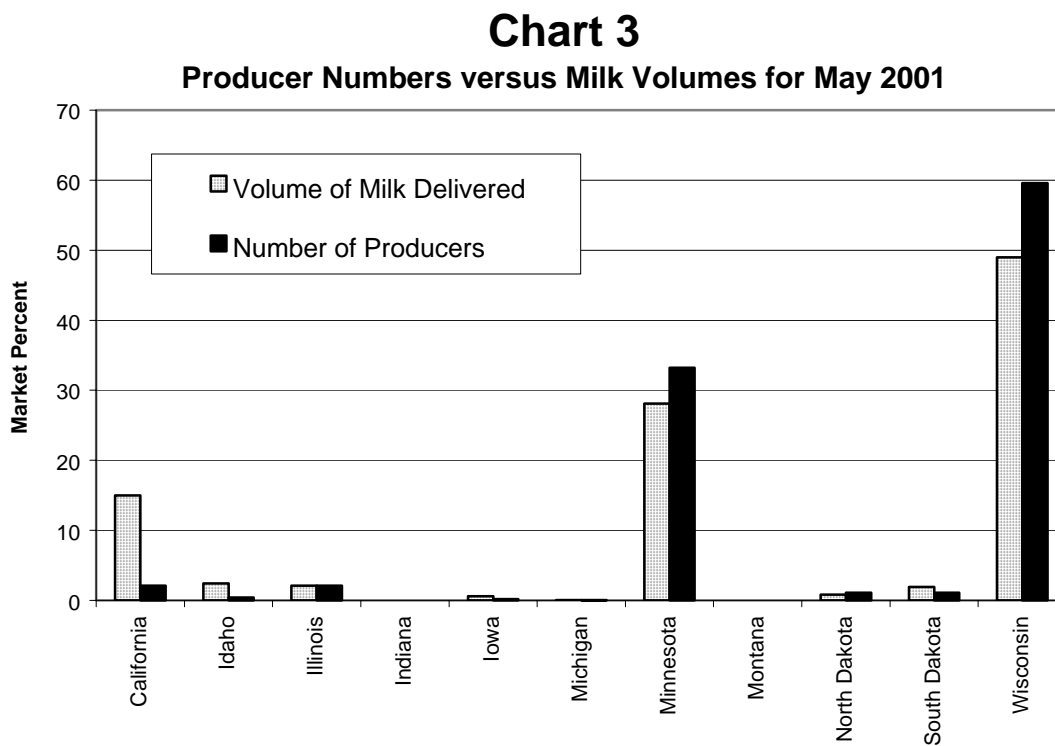
Other = Indiana, Iowa, Michigan and Montana.

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## VI. COMPARISON OF THE NUMBER OF PRODUCERS MAKING MILK DELIVERIES VERSUS TOTAL MILK DELIVERIES ON THE MARKET BY STATE

The following chart compares for each of the eleven states with producer milk pooled on the market, the volume percentage of producer milk deliveries with the percentage of producers pooled on the market, for May of 2001. The data in this chart shows that the percentage of producer milk deliveries from the State of California drastically exceeds California's percentage of producers pooled on the market. This is the result of a strong representation of much larger than market average dairy producers pooled from the State of California. The average producer milk volume for producers located in the State of California was 860,000 pounds. Idaho and South Dakota also had a strong percentage of these larger than market average dairy producers pooled on the market. This representation of larger than average producer sizes is demonstrated in the chart below. The very opposite is observed when examining the data representing the States of Minnesota and Wisconsin. For each of these two states, the percentage of total producers pooled noticeably exceeds the percentage of producer milk deliveries. The study concludes that these two states had below market average producer sizes.



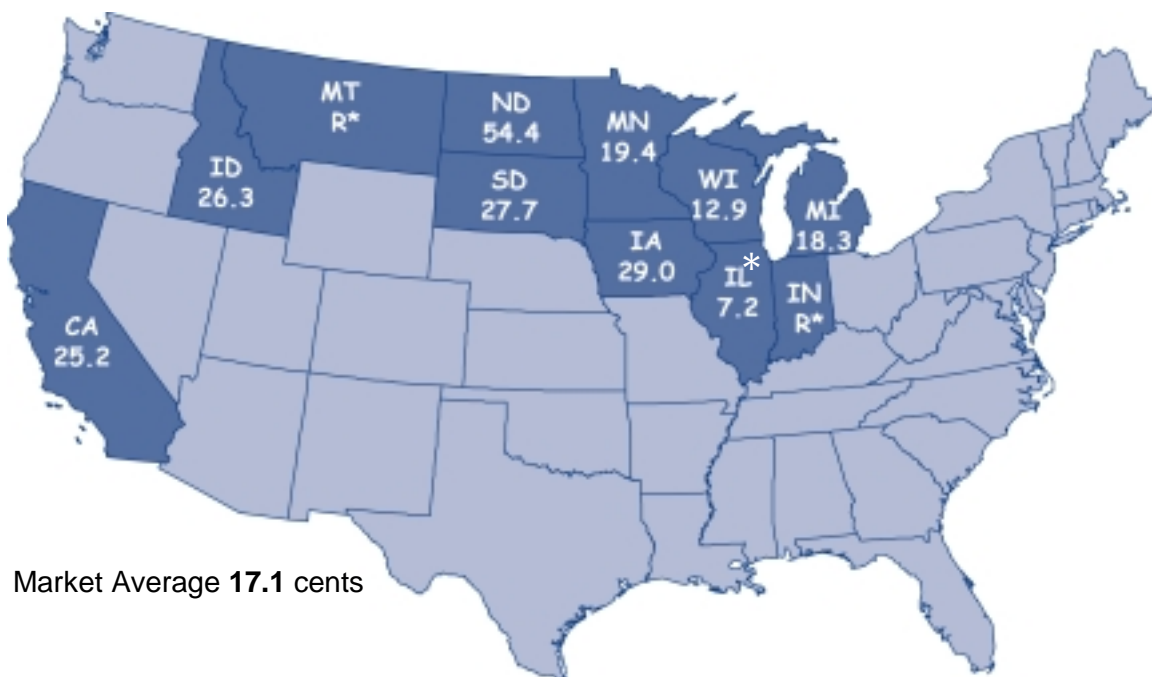
The detail in Figure 1 geographically shows the average hauling charge for each state with producer milk pooled on the Upper Midwest Marketing Area during May of 2001. When examining the average hauling charges by state, the rate per hundredweight has a slight tendency to increase as the producer's distance from the region's largest populated areas increase. The small star on the map represents the Chicago metro area. This area has the largest Class I fluid milk market in the Upper Midwest Marketing Area.

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**Figure 1**

**Upper Midwest Marketing Area  
Average Hauling Charges, by State (cents per cwt.)  
May 2001**



\* Restricted

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When further examining the average hauling charges, in cents per hundredweight and by state, the study finds that the producers located in Illinois had the lowest average hauling charge of any of the states with producer milk pooled on the market. The average hauling charged to producers located in Illinois was only 7.2 cents per hundredweight of milk marketed and 9.9 cents below the market's average. The study found that the Illinois

producers were all located in the northern portion of the state, and that many of these producers were in close proximity of large fluid milk markets (Chicago and Rockford areas).

The producers located in North Dakota, on the other hand, had the highest average hauling charge of any state with producer milk pooled on the market. The average hauling charge to producers located in North Dakota was 54.4 cents per hundredweight of milk marketed and was 37.3 cents above the market average. The study found that the North Dakota producers pooled on the market were physically spread-out and/or were located in 33 individual North Dakota counties. The study acknowledges that in many cases the North Dakota producer milk was moved long distances in order to be marketed in the nearest dairy manufacturing plant. The data analyzed in this study indicates that the North Dakota average hauling charges are strongly influenced by the longer hauling distances and by the lack of local competing dairy manufacturing operations or handlers. The study also acknowledges that most of the North Dakota's producers are distantly located from major Class I markets. The study finds that the actual cost of hauling the longer distances and a simple lack of market competition explain the higher hauling rates being charged in the State of North Dakota.

## **VII. AVERAGE MILK HAULING CHARGE 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 study simply acknowledges that the aforementioned relationship between farm location and distances to competing dairy plant manufacturing operations simply do 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 specific producer will pay the market's highest rate per hundredweight for hauling. Such is the situation when examining the average hauling charges to pooled producers located in the States of California or Idaho. This study recognizes that other factors exist, including the fact that a dairy producer's herd size or milk volume usually influences the producer's cost of hauling.

The data in Table 5 breaks down the market's dairy producers into eight evenly-proportioned producer milk volume categories or size ranges. The table compares the weighted average milk hauling charges for these separate size ranges for the eight highest producing states involved in the market's pool for May 2001. The eight individual size ranges each represent approximately 12.5 percent of the total milk on the entire Upper Midwest market pool. The study finds that Table 5 shows a strong indication that as the producer's milk volume tends to increase, the average hauling charge per hundredweight has the tendency to decrease.

**Table 5**  
**Average Hauling Charge, by Size Range of Monthly Producer Deliveries,**  
**by State, for May 2001**

Size Range		Average Hauling Charge for May 2001								
Equal to or More than	Less Than	CA	ID	IL	IA	MN	ND	SD	WI	Market Average
------(Pounds)-----		------(Cents Per Cwt.)-----								
-	60,000	42.8	32.2	12.4	36.1	32.9	72.5	47.2	22.2	25.9
60,000	90,000	43.1	44.0	10.7	12.5	27.3	67.7	49.0	17.0	21.0
90,000	125,000	41.9	43.1	7.5	13.5	21.9	57.0	38.5	14.7	17.5
125,000	190,000	38.3	40.3	4.3	R	17.6	59.0	35.0	12.9	15.5
190,000	370,000	33.5	38.0	6.5	R	13.1	51.1	32.5	9.6	12.9
370,000	850,000	29.0	32.6	R	R	10.6	67.2	R	7.0	12.8
850,000	2,000,000	26.0	30.8	R	R	8.7	16.2	R	5.3	14.4
2,000,000	-	R	22.2	R	R	4.7	R	R	5.9	17.7
<b>Average</b>		<b>25.2</b>	<b>26.3</b>	<b>7.2</b>	<b>29.0</b>	<b>19.4</b>	<b>54.4</b>	<b>27.7</b>	<b>12.9</b>	<b>17.1</b>

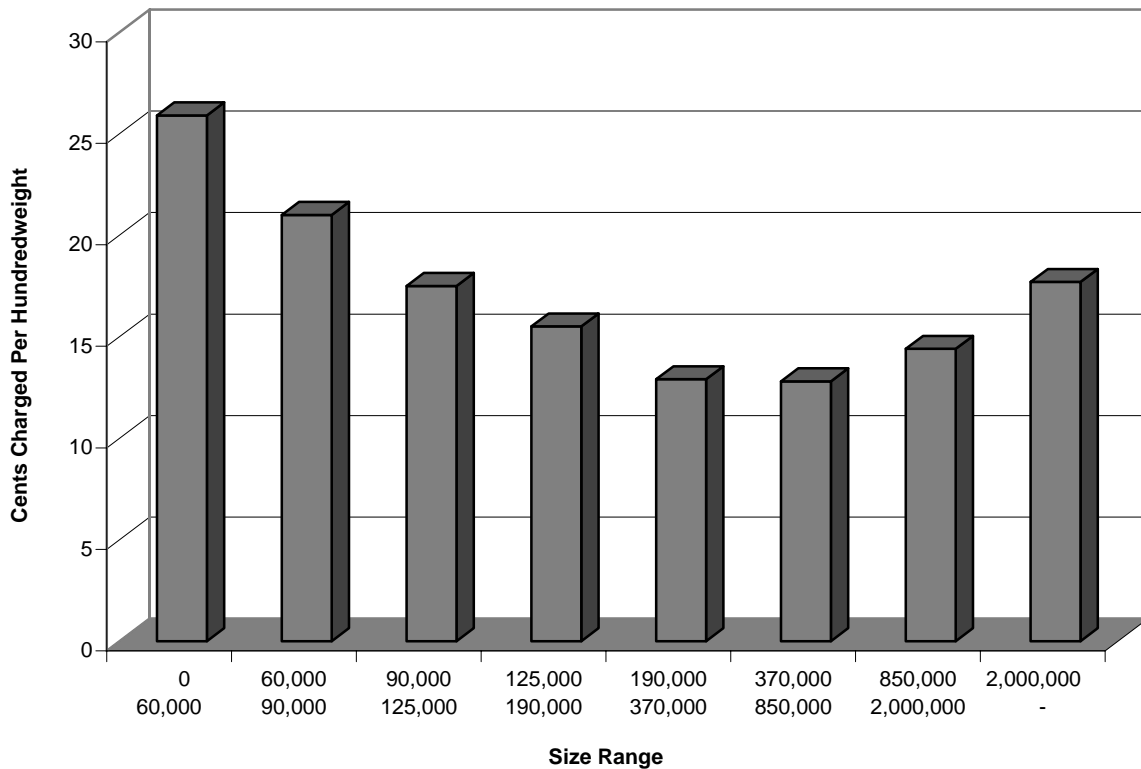
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The study acknowledges that there are several major factors causing differences in hauling charges between individual producer sizes. The most obvious factor responsible for influencing the producer's hauling rate per hundredweight, by herd size range, is that most 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 situation is noticeably apparent when examining most of the data shown in Table 5. Further, this study finds that nearly 80

percent of the producer milk is procured from the States of Minnesota and Wisconsin. The study also finds that these two states possess larger amounts or percentages of smaller to middle market size 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 is going to be less than similar size producers located in other parts of the market's procurement area. The detail in Chart 4 shows the average hauling charge, by size range, for all producer milk pooled on the market, for May 2001.

## Chart 4

**Upper Midwest Marketing Area  
Average Hauling Charge, by Size Range, of Monthly Producer Deliveries for May 2001**



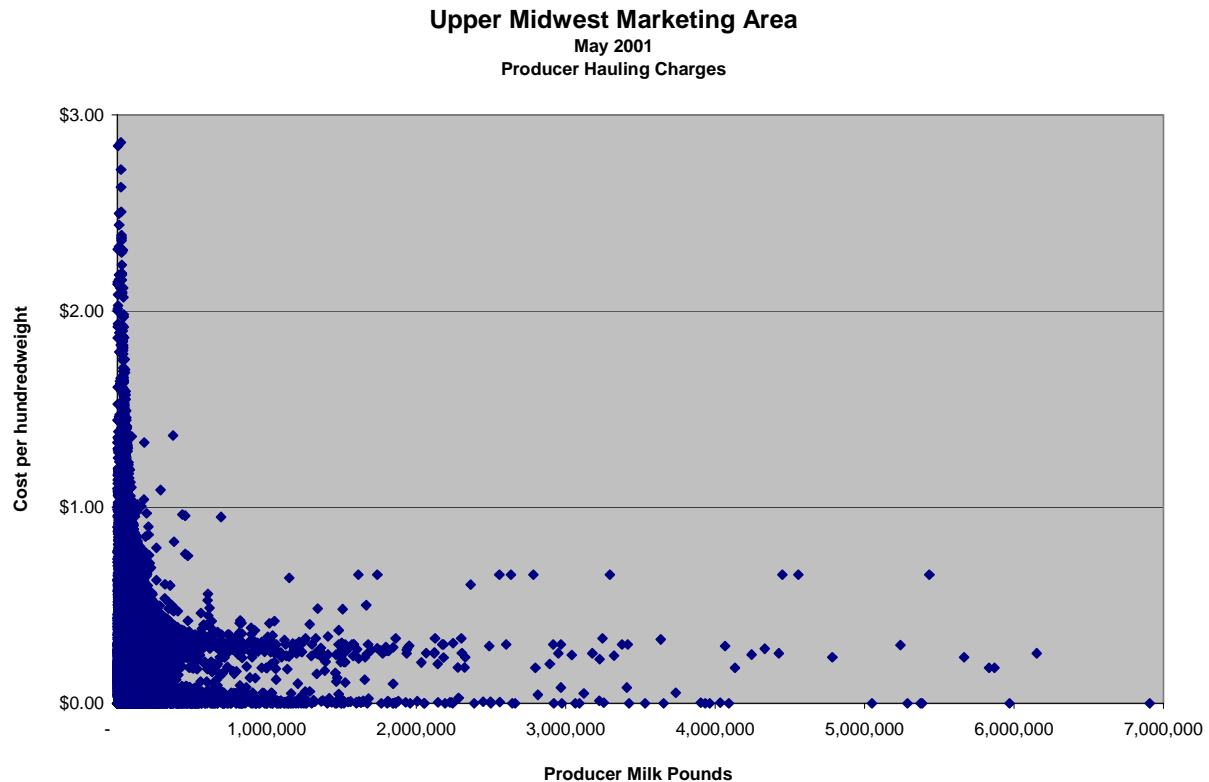
The detail for each state, size categories, and the influence of the aforementioned volume factor is reflected in the producer data plotted on the chart below. In Chart 5, all producers

pooled on the Upper Midwest milk marketing order during May 2001 have been plotted. This study found that 95 percent of the dairy producers were charged less than 75 cents per hundredweight for their hauling charges and had marketed less than 1 million pounds of milk.

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## Chart 5



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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 milk shed areas found in Minnesota and Wisconsin, and also in distant states such as California and Idaho. 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.



**VIII. PERCENTAGE OF TOTAL PRODUCERS IN THE MARKET IN EACH SIZE RANGE OF PRODUCER DELIVERY**

Table 6 represents all producers pooled on the Upper Midwest market during May 2001. The producers are, as was the case in Table 5, categorized into eight evenly-proportioned size groups or size ranges. The size ranges each represent about 12.5 percent of the total producer milk pooled on the Upper Midwest Marketing Order. The right hand column in Table 6 represents the actual percentage of producers representing each size range. The data in Table 6 shows that about 50 percent of the producer milk pooled on this marketing order was actually produced by the smallest 90 percent of producers and/or by the largest 10 percent of producers.

**Table 6**

**Percent of Producers, by Size Range, in the Upper Midwest Marketing Area for May 2001**

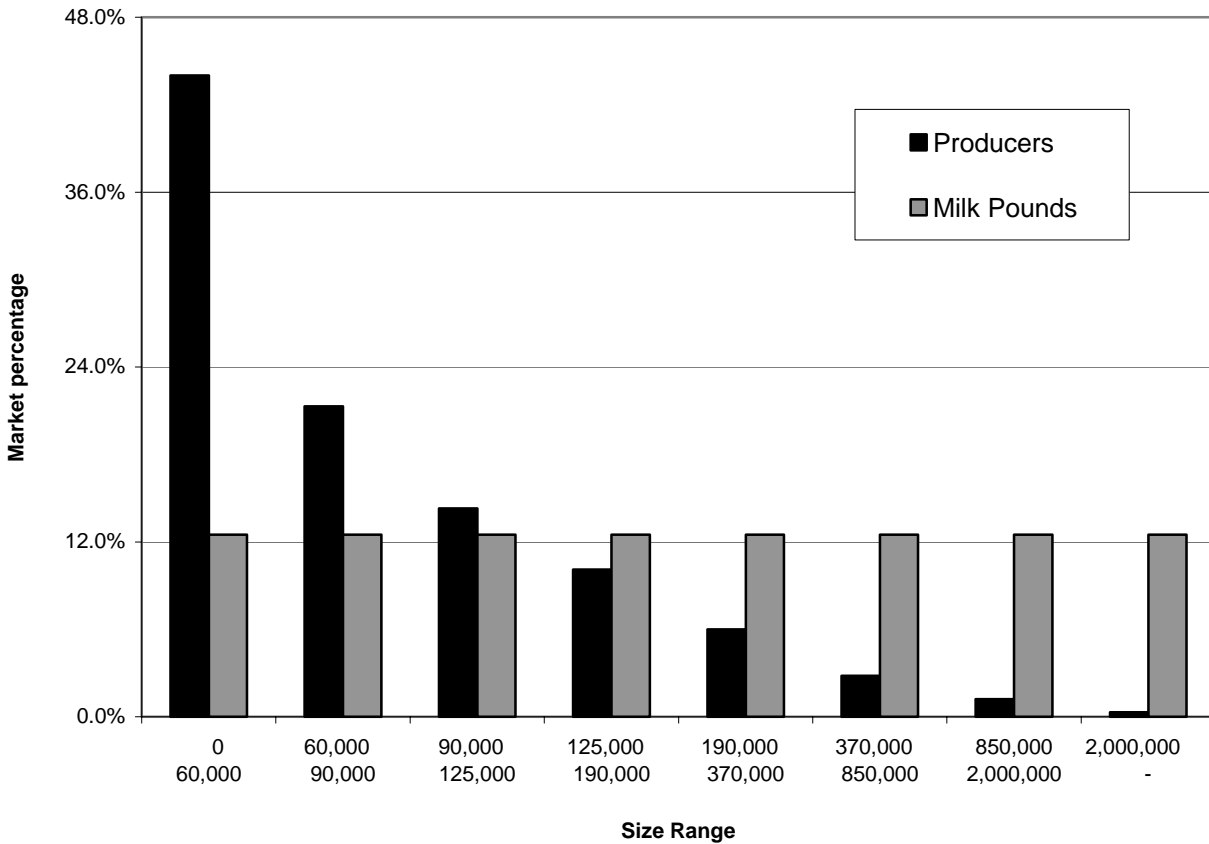
<u>Size Range</u>		<u>Percent of Producers on the Market</u>
<u>Equal to or More than ----- (Pounds) -----</u>	<u>Less Than -----</u>	<u>Order 30 ----- (Market Percentage) -----</u>
-	60,000	44.0%
60,000	90,000	21.3%
90,000	125,000	14.3%
125,000	190,000	10.1%
190,000	370,000	6.0%
370,000	850,000	2.8%
850,000	2,000,000	1.2%
2,000,000	-	0.3%
<b>Average</b>		<b>100%</b>

The data in Chart 6 categorizes all producers pooled into eight evenly-proportioned size ranges. Each size range represents about 200 million pounds of producer milk, or 12.5 percent of the nearly 1.6 billion pounds of milk pooled on the Upper Midwest Order for May 2001. This chart displays the percentage of producers that makes up each of these individual, evenly-proportioned size ranges. This chart shows that roughly 44 percent of the market's producers make up the first of the eight evenly-proportioned size ranges, and

about 1/3 of one percent, the largest producers, make up the last of the eight evenly-proportioned size ranges.

**Chart 6**

**Percent of Producers, by Size Range, in the Upper Midwest Marketing Area for May 2001**



**IX. AVERAGE MILK HAULING CHARGE BY STATE AND COUNTY**

Table 7 details the average milk hauling charge, per hundredweight, by state and county for the Upper Midwest Marketing Area for May 2001. The data in Table 7 represents dairy producers located in over two hundred counties and eleven states.

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**Table 7**

**Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>California</b>	Butte	32.7
	Colusa	R
	Fresno	R
	Glenn	28.2
	Kern	65.5
	Kings	R
	Madera	14.7
	Marin	31.9
	Merced	15.9
	Monterey	24.4
	Placer	R
	Riverside	25.0
	Sacramento	30.6
	San Benito	R
	San Bernardino	20.3
	San Joaquin	27.0
	Santa Barbara	R
	Santa Clara	R
	Shasta	R
	Solano	R
	Sonoma	30.8
	Stanislaus	28.3
Sutter	R	
Tehama	32.5	
Tulare	14.0	
Yuba	R	
<b>Idaho</b>	Cassia	24.8
	Gooding	R
	Jerome	35.7
	Minidoka	23.9

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**Table 7****Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Illinois</b>		
	Boone	7.4
	De Kalb	7.0
	Jo Daviess	9.6
	Kane	11.4
	Lake	10.0
	McHenry	8.5
	Ogle	9.2
	Stephenson	3.6
	Will	R
	Winnebago	7.1
<b>Indiana</b>		
	Jasper	R
<b>Iowa</b>		
	Allamakee	13.3
	Clinton	21.2
	Dubuque	R
	Emmet	R
	Howard	68.6
	Iowa	R
	Lyon	R
	Mitchell	R
	Sioux	R
	Winneshiek	7.3
	Worth	R
<b>Michigan</b>		
	Menominee	22.3
	Montcalm	R
	Muskegon	R
<b>Minnesota</b>		
	Aitkin	33.1
	Anoka	R
	Becker	26.6

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**Table 7****Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Minnesota</b> (continued)		
	Beltrami	35.7
	Benton	18.8
	Big Stone	22.5
	Blue Earth	15.5
	Brown	19.0
	Carlton	20.1
	Carver	19.7
	Cass	25.1
	Chippewa	14.0
	Chisago	28.3
	Clay	21.1
	Clearwater	R
	Cottonwood	15.6
	Crow Wing	22.1
	Dakota	23.2
	Dodge	12.2
	Douglas	20.4
	Faribault	8.2
	Fillmore	17.3
	Freeborn	20.5
	Goodhue	20.9
	Grant	27.3
	Hennepin	18.8
	Houston	14.1
	Hubbard	R
	Isanti	6.2
	Itasca	63.7
	Jackson	R
	Kanabec	25.6
	Kandiyohi	16.5
	Kittson	83.8
	Lac Qui Parle	24.8
	Lake of the Woods	141.3

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**Table 7**

**Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Minnesota</b> (continued)		
	Le Sueur	15.6
	Lincoln	31.0
	Lyon	34.0
	McLeod	18.1
	Mahnomen	17.6
	Marshall	74.4
	Martin	15.6
	Meeker	12.2
	Mille Lacs	29.4
	Morrison	17.2
	Mower	29.1
	Murray	35.2
	Nicollet	14.2
	Norman	34.5
	Olmsted	19.9
	Otter Trail	20.4
	Pennington	31.6
	Pine	25.2
	Pipestone	42.8
	Polk	55.5
	Pope	17.2
	Ramsey	R
	Red Lake	27.0
	Redwood	18.3
	Renville	13.9
	Rice	25.9
	Rock	19.0
	Roseau	74.2
	St. Louis	28.6
	Scott	16.0
	Sherburne	20.4
	Sibley	20.8
	Stearns	14.9

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**Table 7****Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Minnesota</b> (continued)		
	Steele	21.4
	Stevens	R
	Swift	18.8
	Todd	19.7
	Traverse	R
	Wabasha	17.8
	Wadena	18.2
	Waseca	14.3
	Washington	30.1
	Watonwan	13.7
	Wilkin	21.6
	Winona	17.5
	Wright	18.1
	Yellow Medicine	R
<b>Montana</b>		
	Richland	R
<b>North Dakota</b>		
	Barnes	13.5
	Benson	R
	Burleigh	R
	Cass	55.0
	Dickey	R
	Emmons	54.2
	Foster	R
	Grand Forks	91.0
	Grant	R
	Griggs	102.0
	Kidder	50.8
	La Moure	69.4
	Logan	R
	McHenry	86.2

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**Table 7****Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>North Dakota</b> (continued)		
	McIntosh	36.5
	McKenzie	65.0
	McLean	86.4
	Mercer	R
	Morton	63.4
	Nelson	61.3
	Oliver	70.2
	Pierce	85.0
	Ransom	R
	Richland	25.5
	Rolette	R
	Sheridan	R
	Stark	59.8
	Stutsman	80.1
	Traill	R
	Walsh	R
	Ward	R
	Wells	84.5
	Williams	R
<b>South Dakota</b>		
	Beadle	R
	Brookings	R
	Brown	43.3
	Campbell	R
	Clark	32.0
	Codington	28.9
	Day	21.5
	Deuel	21.3
	Edmunds	22.8
	Grant	16.1
	Hamlin	36.9
	McPherson	17.3

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**Table 7****Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>South Dakota</b> (continued)		
	Marshall	7.7
	Minnehaha	32.5
	Moody	R
	Potter	R
	Roberts	19.0
	Walworth	13.5
<b>Wisconsin</b>		
	Adams	11.5
	Ashland	15.6
	Barron	12.6
	Bayfield	23.6
	Brown	15.0
	Buffalo	8.5
	Burnett	22.6
	Calumet	12.4
	Chippewa	11.2
	Clark	6.9
	Columbia	8.6
	Crawford	12.5
	Dane	6.5
	Dodge	9.5
	Door	30.0
	Douglas	23.2
	Dunn	9.7
	Eau Claire	10.5
	Florence	R
	Fond du Lac	7.5
	Forest	10.5
	Grant	12.1
	Green	8.9
	Green Lake	14.6
	Iowa	9.8
	Jackson	7.7

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**Table 7**

**Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Wisconsin</b> (continued)		
	Jefferson	10.4
	Juneau	9.9
	Kenosha	9.9
	Kewaunee	27.7
	La Crosse	9.9
	Lafayette	8.5
	Langlade	17.0
	Lincoln	20.1
	Manitowoc	17.2
	Marathon	21.6
	Marinette	13.0
	Marquette	7.0
	Milwaukee	R
	Monroe	10.0
	Oconto	11.0
	Outagamie	21.1
	Ozaukee	14.3
	Pepin	9.7
	Pierce	15.5
	Polk	12.5
	Portage	20.0
	Price	7.7
	Racine	10.0
	Richland	9.0
	Rock	8.7
	Rusk	11.6
	St. Croix	13.1
	Sauk	7.7
	Sawyer	R
	Shawano	21.0
	Sheboygan	10.0
	Taylor	15.3
	Trempealeau	9.5

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**Table 7**

**Upper Midwest Order Milk Procurement Area Average Hauling Charge, by State and County for the Market Area for May 2001**

<b>State</b>	<b>County</b>	<b>Average Hauling Charge (Cents Per Cwt.)</b>
<b>Wisconsin</b> (continued)		
	Vernon	12.8
	Walworth	6.9
	Washburn	12.2
	Washington	10.6
	Waukesha	8.8
	Waupaca	19.1
	Waushara	26.7
	Winnebago	19.6
	Wood	7.9

R = Restricted data.

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In Table 7, the listed counties with the highest average hauling charge rates were Kern of California, Itasca, Kittson, Lake of the Woods, Polk and Roseau of Minnesota, Cass, Emmons, Grand Forks, Griggs, Kidder, McHenry, McKenzie, McLean, Morton, Nelson, Oliver, Pierce, Stark, Stutsman and Wells of North Dakota. The average hauling charge for each of these counties exceeded 50 cents per hundredweight. On the other hand, the lowest average hauling charge rates were found in the Illinois counties of Boone, De Kalb, Stephenson and Winnebago, the Iowa county of Winneshiek, the Minnesota county of Isanti, the South Dakota county of Marshall and the Wisconsin counties of Clark, Dane, Fond du Lac, Jackson, Marquette, Price, Sauk, Walworth and Wood. The average hauling charges in each of these counties were found to be less than 8 cents per hundredweight.

## **X. FACTORS CONTRIBUTING TO DIFFERENCES IN THE AMOUNT OF HAULING CHARGES**

In Table 7, the counties with the highest average hauling charges were mainly located in “semi-remote” areas such as found in northern Minnesota and North Dakota. The study acknowledges that many of these counties simply 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 simply 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 simply raises the actual transportation cost for moving their milk to market. Another factor that is noticeably absent from many of these semi-remote counties, and included in many of the other counties, is the existence of one or more large-scale dairy farm operations. 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. The May 2001 study found that the average milk volume for dairy producers charged in excess of 50 cents per hundredweight, excluding a few producers located in California, was only 88,000 pounds. This figure of 88,000 pounds is actually 28,000 pounds less than the market’s average of 116,000 pounds. Many of these smaller farms were located in these semi-remote counties possessing lower human populations.

Many of the counties that had the lowest average hauling charges are geographically located in close proximity to the so called “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. The average milk volume for dairy producers who were charged less than 8 cents per hundredweight was 169,000 pounds, or 53,000 pounds more than the market average of 116,000 pounds and 81,000 more than those producers charged more than 50 cents per hundredweight.

This study further investigated the hauling charges to identify other common factors responsible for the disparity between the individual counties' average hauling rates. The study especially analyzed inconsistencies in hauling rates of seemingly similar counties possessing common milk marketing characteristics. In one scenario, the average hauling rate disparity in the Wisconsin counties of Fond du Lac, Green Lake, Marquette, Waushara and Winnebago is especially noticeable. These five counties appear very similar in location and market conditions. The five counties each had a large number of dairy farmers pooled on the market and similar county averages regarding the farm sizes and volumes of milk marketed. The five counties averaged more than 100 dairy producers per county. The study found that each of the five counties were physically located a similar distance from major Class I markets. Each of the five counties either housed or was surrounded by ample competing dairy manufacturing plants. In fact, all five of these central Wisconsin counties virtually bordered one another. The only obvious difference between the aforementioned five counties was in their average county hauling rates. The five county average hauling rates varied from as little as 7.0 cents per hundredweight to as much as 26.7 cents per hundredweight. The hauling charge disparity appears to be in part due to the rates handlers charge in relationship to the county's dairy farm size of operation. The variation in hauling charges, or lack thereof, clearly reflects a competitive premium structure (i.e. hauling subsidy) being applied by the competing handlers.

This study analyzes the above five counties and their hauling charge disparity by identifying and examining the influence of large dairy farm operators. This influence is in fact noticeable when we examined and analyzed the data shown in Table 8. In this table, the dairy producers from each of the five counties are categorized into two additional size groups. The first column in Table 8 shows the average hauling charge for each of the five listed counties. The second column shows only those producers with smaller than average milk deliveries and the third column shows only those producers with larger than average milk deliveries. The data in this table helps to explain the impact that the larger dairy producers have on any county's average hauling rate.

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**Table 8**

**Comparison of Smaller Verses Larger Than Market Average Dairy Farms for Five Wisconsin Counties and Their Average Hauling Rates for May 2001**

<u>County</u>	<u>Average Hauling Charge (Cents Per Cwt.)</u>		
	Average of All <u>Farms</u>	Below Average Farms <u>(&lt;116K)</u>	Above Average Farms <u>(&gt;116K)</u>
Fond du Lac	7.5	9.1	6.7
Green Lake	14.6	17.1	13.1
Marquette	7.0	18.1	2.6
Waushara	26.7	39.9	18.1
Winnebago	19.6	32.5	12.9
<b>Simple Average</b>	<b>15.1</b>	<b>23.3</b>	<b>10.7</b>

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The data in Table 8 helps to demonstrate the impact that the composition of the dairy producer herd size has on their respective county. This research reveals that when the pounds and hauling rates are removed regarding the larger than market average dairy producer operators, leaving only those farms with less than 116,000 pounds, the county average hauling rates will increase substantially. The table also reveals that the opposite reaction takes place when the smaller dairy producer operators are removed from the county averages. This study finds that the case study regarding the five counties in Table 8 clearly shows major differences in producers' hauling charges. The researcher also acknowledges that if the same type of analysis were completed for each of the more than 200 counties located in eleven states, the study would find that each of the county hauling rates would react differently. This is mainly true because a wide variation of costing mechanisms are being applied for producer hauling charges by the different handlers located in various regions of the market. The county composition regarding the producer's size and volume does most likely impact each of the counties supplying milk into the Upper Midwest Marketing Area.

## **IX. SUMMARY**

When examining the average hauling charge at the state level, it appears that average hauling charges, for producers in the Upper Midwest Marketing Area, have the tendency to increase as the producer's distance from Chicago, Illinois increases. However, this relationship between the producer's average hauling charge rate and the producer's location to Class I market is not nearly as noticeable when analyzing the producer data at the county level. Although there may be some merit to producers having a lower hauling charge based on their relationship to Class I markets, this factor is not always apparent, nor indicative of many of the counties within the Upper Midwest Marketing Area.

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, usually 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 found that for May 2001, the market average producer milk delivery was 116,000 pounds. The median producer milk delivery was only 68,000 pounds. This study found that 77 percent of the producers on this market shipped less than the weighted average producer milk delivery of 116,000 pounds. This study also found that about 50 percent of the milk pooled on this marketing order was actually produced by the largest 10 percent of producers.

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.