

**MILK HAULING CHARGES IN THE
UPPER MIDWEST MARKETING AREA
MAY 2002-2004**



Staff Paper 05-01

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December 2005

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ABSTRACT

This study investigated the milk hauling charges, to the first point of delivery, for the producers on the Upper Midwest Marketing Area for the month of May in the years 2002 through 2004. There were, on average, 23,247 producers reported as participating in the Upper Midwest Milk Market. The data for hauling charges and milk production were obtained from handlers who had submitted producer payrolls to the Market Administrator's office. Pricing agreements for these producers included flat fee payments and some where the hauling cost is paid directly by the producer and thus not reported by the handler. 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 weighted average hauling charge for producers participating on the Upper Midwest Order was \$.1993, \$.1990, and \$.2131 dollars per hundredweight for 2002, 2003, and 2004, respectively.
- 2) For the states from which the producer milk was received into this market, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oregon, South Dakota, Utah, and Wisconsin, average state hauling charges ranged from \$.1215 to \$1.3358 dollars per hundredweight for 2004.
- 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) For those states which have some or all of their territory within the Upper Midwest Marketing Area, Illinois, Iowa, Minnesota, North Dakota, South Dakota, Wisconsin, and the Upper Peninsula of Michigan, hauling rates tended to increase from the southeast to the northwest with Illinois having the lowest average hauling rate, \$0.1215 per cwt., and North Dakota having the highest average hauling rate, \$0.6319 per cwt.
- 5) 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.
- 6) The data from this study showed producers from three states supplied approximately 90% of the total milk on this order.

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MILK HAULING CHARGES IN THE UPPER MIDWEST MARKETING AREA MAY 2002-2004

Corey Freije¹

I. INTRODUCTION

For the month of May in 2002 through 2004, Upper Midwest Marketing Order bulk milk hauling charges, to the first point of delivery, were examined for an average of 23,247 dairy producers whose milk was reported to the Market Administrator.

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. Additionally, some producers pay the hauling costs directly. 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 for the years 2002 through 2004 was chosen because May historically represents a period with high supplies of producer milk and rather minimal Class I demand. The handler records submitted to the Market Administrator's office, including producer receipts and payroll information, are the data source for this study.

II. AVERAGE MILK HAULING CHARGES - FOR THE REPORTED PAYROLL AND BY STATE

For the period, the weighted average hauling charge for all producer milk reported to the Upper Midwest Market Administrator was 19.93, 19.90, and 21.31 cents per hundredweight for 2002, 2003, and 2004 respectively. This study revealed that the States of Illinois, Ohio, Michigan, and Wisconsin had less than the market's average hauling charge. The average

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hauling charges for producers located in these states were 12.15, 14.27, 15.33, and 15.15 cents per hundredweight, respectively for 2004.

The study revealed that North Dakota had the highest average hauling charge of any state with producer milk consistently pooled on the Upper Midwest Marketing Area. The average hauling rate for dairy producers pooled on the Upper Midwest market for North Dakota was 63.19 cents per hundredweight for 2004. (See Table 1.)

Table 1

Average Hauling Charge, by State for May 2002-2004
(per cwt.)

State	2002	2003	2004
Idaho	\$0.3254	\$0.2551	\$0.3636
Illinois	\$0.1198	\$0.1446	\$0.1215
Iowa	\$0.2939	\$0.2704	\$0.2578
Michigan	\$0.1957	\$0.2262	\$0.1533
Minnesota	\$0.2432	\$0.2579	\$0.2465
North Dakota	\$0.7007	\$0.6154	\$0.6319
South Dakota	\$0.4597	\$0.4416	\$0.4610
Wisconsin	\$0.1484	\$0.1489	\$0.1515
Other ²	\$0.1916	\$0.0914	\$0.7389
Simple Average	\$0.3603	\$0.3163	\$0.4628
Weighted Average	\$0.1993	\$0.1990	\$0.2131

The average hauling charges, in cents per hundredweight and by state for producers located in Illinois had the lowest average hauling charge of any of the states with producer milk consistently pooled on the Upper Midwest Marketing Order. The average hauling charged to producers located in Illinois was only 12.15 cents per hundredweight 34.13 cents below the market's simple average and 9.16 cents per hundredweight below the weighted average for May 2004. 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).

² Other is comprised of the states Georgia, Indiana, Kansas, Missouri, Montana, Nebraska, Ohio, Oregon, and Utah for all three years and throughout this paper.

The producers located in North Dakota, on the other hand, had the highest average hauling charge of any state continuously on the market. The average hauling charge to producers located in North Dakota was 63.19 cents per hundredweight of milk marketed and was 16.91 cents above the simple market average for that same year. The study found that the North Dakota producers pooled on the market were physically spread-out and were located in 35 individual North Dakota counties for May 2004. 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 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 North Dakota.

III. AVERAGE PRODUCER MILK DELIVERIES - FOR THE REPORTED PAYROLL 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. For May of 2002, 2003, and 2004 the average producer delivery for the approximately 23,000 producers whose milk was reported on payrolls to the Upper Midwest Market Administrator was 121,331 pounds, 113,450 pounds, and 131,066 pounds respectively, while the median for each of the years was 68,140 pounds, 66,271 pounds, and 70,639 pounds respectively. The significantly lower median compared to the mean indicates that there are a considerable number of producers with monthly average production below the mean, while there are relatively few very large producers. For the period, the Upper Midwest monthly state average producer milk delivery was 821,000 pounds, or about 26,484 pounds per day for May 2004. Excluding Nebraska, Idaho, Oregon, Indiana, and Georgia reduces this average to 158,000 pounds or about 5,097 pounds per day for May 2004. The average producer in the States of Minnesota, North Dakota, Illinois, Iowa, and Wisconsin had less than this 158,000-pound average monthly milk delivery. The average delivery of milk for producers located in these five states was 114,000, 103,000, 104,000, 118,000, and 117,000 pounds, respectively. This study also revealed that the States of Indiana, Georgia,

and Nebraska had by far the highest average producer milk deliveries pooled on the Upper Midwest Marketing Area. However, the Indiana, Georgia, and Nebraska producers were not pooled consistently on Order 30. The average delivery for these states was 3,434,000 for May 2004. The May 2002 through 2004 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 2002-2004
(Thousands)

State	2002	2003	2004
Idaho	1,084	1,088	1,223
Illinois	91	96	104
Iowa	176	166	118
Michigan	371	444	408
Minnesota	102	108	114
North Dakota	106	112	103
South Dakota	162	192	202
Wisconsin	106	111	117
Other	1,063	1,172	1,286
State			
Simple Average³	506	499	821
Median	128	131	202
Producer			
Average	121	113	131
Median	68	66	71

As shown above, this study revealed that the Upper Midwest market median state milk delivery was 202,000 pounds. In this scenario, the median falls roughly 619,000 pounds below the market average of 821,000 pounds for May 2004. 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.

IV. PERCENTAGE OF PRODUCER MILK DELIVERIES BY STATE

For the period, 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

³ The simple averages are calculated on the disaggregated state data for "Other", this practice puts comparatively less weight on the states with smaller delivery volumes.

any of the states, by supplying 58 percent of the total milk volume pooled for May 2004. Producers from the States of Minnesota and Idaho 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 4 percent. (See Table 3 and Chart 1.)

Table 3

Proportion of Deliveries, by State for May 2002-2004

State	2002	2003	2004
Idaho	6.13%	8.05%	10.86%
Illinois	1.47%	1.62%	1.83%
Iowa	1.36%	1.80%	3.95%
Michigan	0.54%	0.54%	0.51%
Minnesota	24.21%	23.45%	21.08%
North Dakota	1.07%	0.97%	0.78%
South Dakota	2.82%	2.89%	2.54%
Wisconsin	62.10%	60.41%	57.88%
Other	0.28%	0.27%	0.58%

Chart 1a

Percentage of Producer Milk Deliveries by State for May 2002

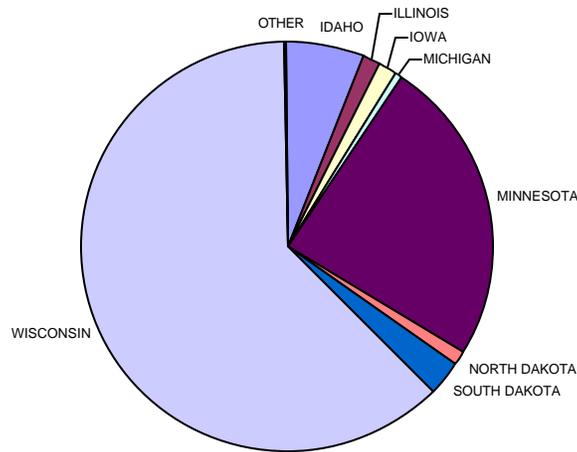


Chart 1b

Percentage of Producer Milk Deliveries by State for May 2003

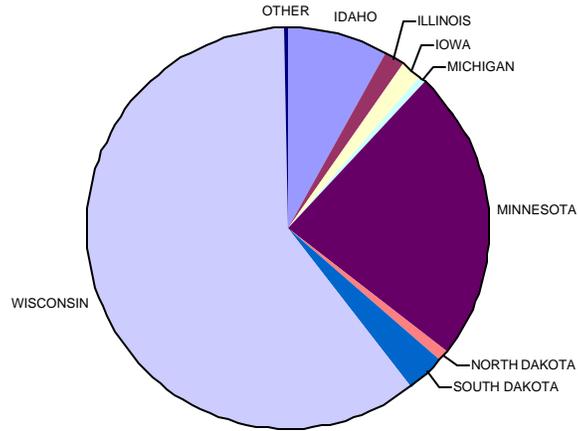
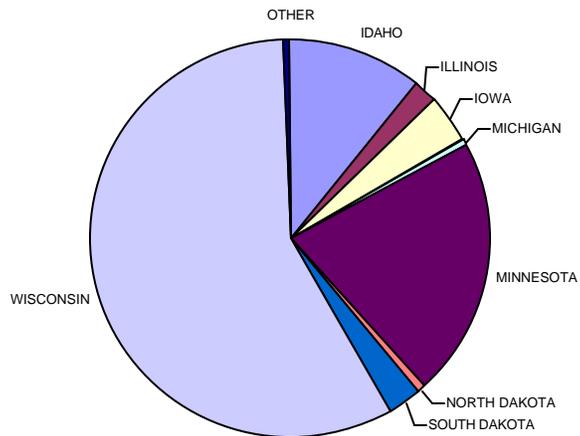


Chart 1c

Percentage of Producer Milk Deliveries by State for May 2004



V. PERCENT OF PRODUCERS ON THE MARKET BY STATE

In this study, farm numbers were used to calculate the average producer farm size, regarding milk volumes, and the total market share of producers for each state. For the period, there was an average of 23,247 producers on the Upper Midwest Marketing Order. The State of Wisconsin had the most producers of any state, with 65 percent of the total producers delivering to the market. The State of Minnesota had the second highest number of producers with 24.21 percent for May of 2004. The study found that each of the remaining states had only a minimal number or percentage of producers on the market. (See Table 4 and Chart 2.)

Table 4

**Percent of Producers Making Deliveries, by State and for the Marketing Area
for May 2002-2004**

State	2002	2003	2004
Idaho	0.64%	0.90%	1.16%
Illinois	1.82%	2.05%	2.30%
Iowa	0.88%	1.32%	4.38%
Michigan	0.16%	0.15%	0.16%
Minnesota	26.80%	26.47%	24.21%
North Dakota	1.14%	1.06%	0.99%
South Dakota	1.97%	1.83%	1.65%
Wisconsin	66.53%	66.20%	65.00%
Other	0.04%	0.03%	0.14%

Chart 2a

Percent of Producers Making Deliveries by State for May 2002

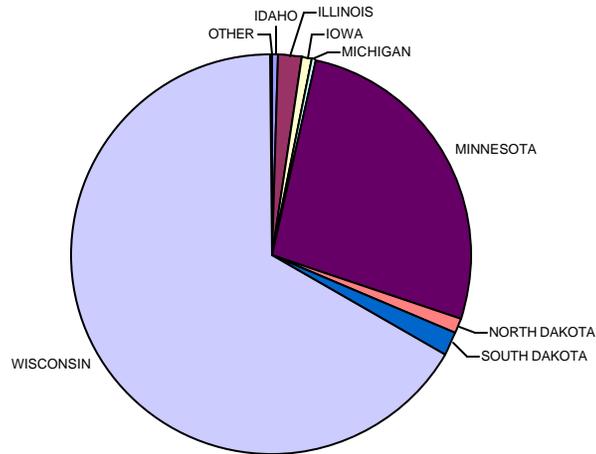


Chart 2b

Percent of Producers Making Deliveries by State for May 2003

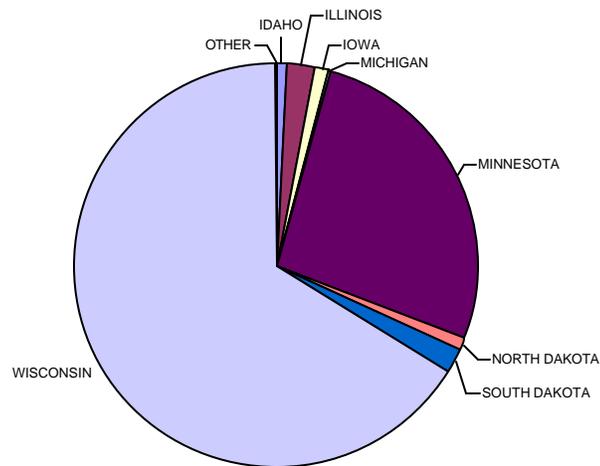
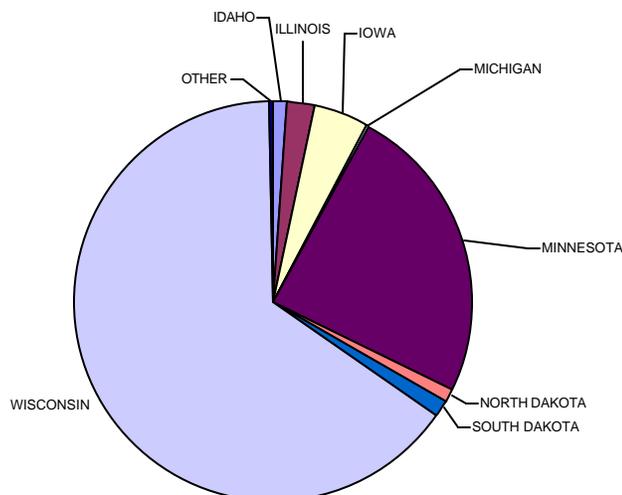


Chart 2c

Percent of Producers Making Deliveries by State for May 2004



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

The following charts compare, for each of the 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 2002 to 2004. Idaho and South Dakota had a strong percentage of 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.

Chart 3a

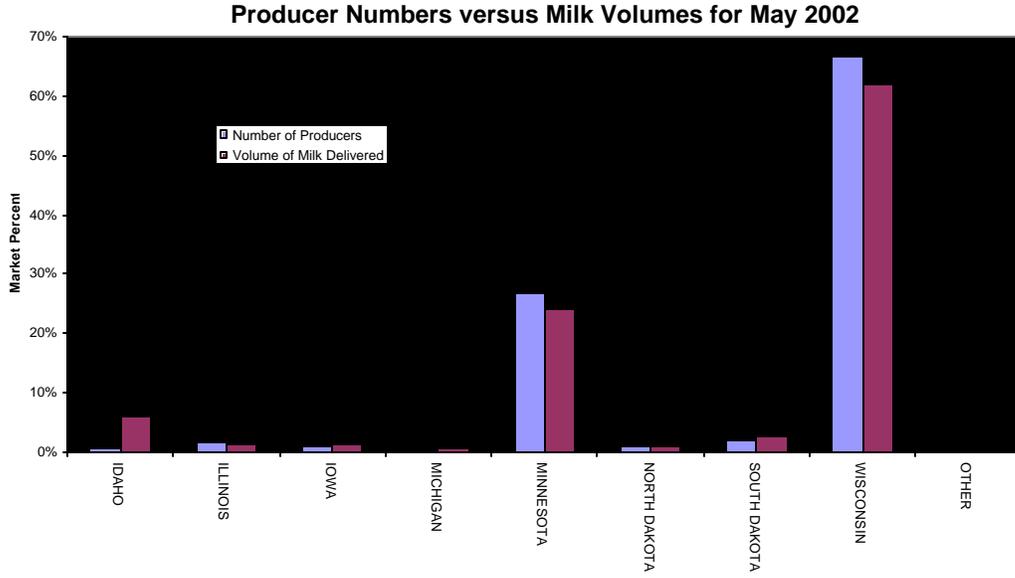


Chart 3b

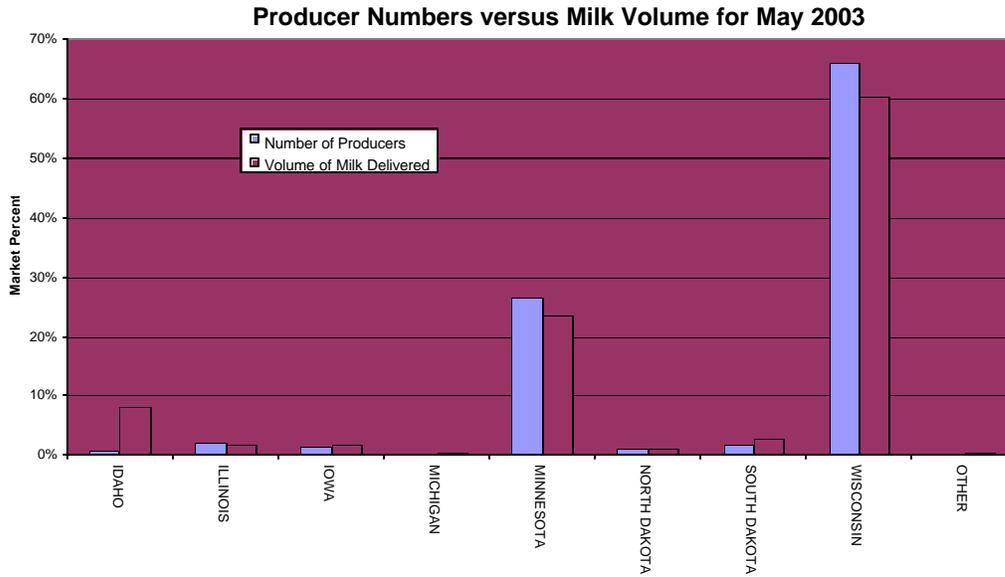
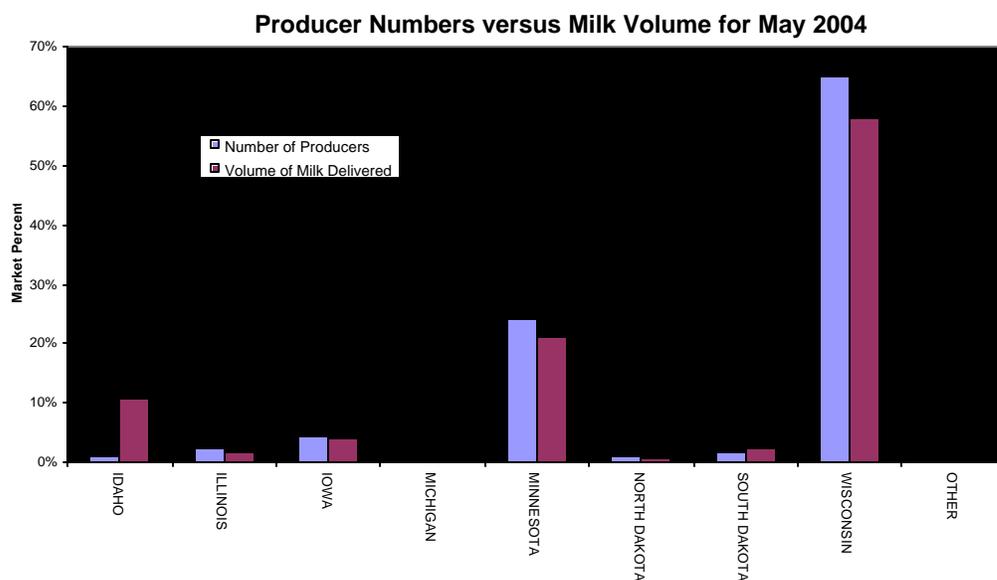


Chart 3c



VII. AVERAGE MILK HAULING CHARGE BY SIZE RANGE OF PRODUCER DELIVERY

The data shown in Table 5 indicates that there are several factors that determine hauling charges. The study 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 producers located in the State of 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 the month of May in 2002, 2003, and 2004. The eight individual size ranges each represent approximately 12.5 percent of the total milk on payrolls submitted to the Upper Midwest Market Administrator. 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 2002 to 2004 (per cwt.)

2002										
Size	ID	IL	IA	MI	MN	ND	SD	Other	WI	Average
2 million or more	\$0.2100		R	R	\$0.0941	R	\$0.0921	\$0.0000	\$0.0592	\$0.1777
850,000 to 2 million	\$0.2731	R	\$0.3691		\$0.1036	\$0.2126	\$0.1549	\$0.6600	\$0.0441	\$0.2273
370,000 to 850,000	\$0.3234	\$0.0082	\$0.3084		\$0.1040	R	\$0.2442	\$0.4600	\$0.0513	\$0.2930
190,000 to 370,000	\$0.3898	\$0.0506	\$0.3238	\$0.1801	\$0.1411	\$0.5876	\$0.3345	\$0.4600	\$0.0817	\$0.2833
125,000 to 190,000	\$0.4183	\$0.0496	\$0.2415	\$0.1459	\$0.1684	\$0.6797	\$0.3897		\$0.0953	\$0.2736
90,000 to 125,000	\$0.4038	\$0.0853	\$0.2137	\$0.1890	\$0.2060	\$0.5909	\$0.4036	\$0.5100	\$0.1159	\$0.3218
60,000 to 90,000	\$0.4450	\$0.1091	\$0.2460	\$0.1611	\$0.2562	\$0.6945	\$0.5082	\$0.4000	\$0.1354	\$0.3284
less than 60,000	\$0.3559	\$0.1691	\$0.3565	\$0.2467	\$0.2913	\$0.7679	\$0.5602	\$0.5000	\$0.1914	\$0.3949
Average⁴	\$0.3524	\$0.0674	\$0.2824	\$0.1791	\$0.1706	\$0.6243	\$0.3359	\$0.4442	\$0.0968	

2003										
Size	ID	IL	IA	MI	MN	ND	SD	Other	WI	Average
2 million or more	\$0.1632		R	R	\$0.0458	R	\$0.0823	\$0.0000	\$0.0278	\$0.0770
850,000 to 2 million	\$0.1943	\$0.0000	\$0.2987		\$0.0862	\$0.0954	\$0.1287	\$0.6700	\$0.0302	\$0.1881
370,000 to 850,000	\$0.2432	\$0.0054	\$0.2307		\$0.0922	\$0.1746	\$0.2707		\$0.0588	\$0.1537
190,000 to 370,000	\$0.3295	\$0.0533	\$0.2532	\$0.1864	\$0.1140	\$0.4821	\$0.3278	\$0.0000	\$0.0763	\$0.2025
125,000 to 190,000	\$0.2902	\$0.0620	\$0.2109	\$0.0323	\$0.1577	\$0.5837	\$0.3701	\$0.0000	\$0.1015	\$0.2009
90,000 to 125,000	\$0.3236	\$0.1031	\$0.2302	\$0.2711	\$0.2145	\$0.5425	\$0.4567	\$0.5500	\$0.1187	\$0.3123
60,000 to 90,000	\$0.3627	\$0.1248	\$0.2280	\$0.1768	\$0.2590	\$0.6620	\$0.4791	\$0.5500	\$0.1394	\$0.3313
less than 60,000	\$0.3414	\$0.2086	\$0.3338	\$0.3388	\$0.3337	\$0.6624	\$0.5461	\$0.2800	\$0.1930	\$0.3508
Average	\$0.2810	\$0.0796	\$0.2363	\$0.1934	\$0.1629	\$0.4050	\$0.3327	\$0.2900	\$0.0932	

2004										
Size	ID	IL	IA	MI	MN	ND	SD	Other	WI	Average
2 million or more	\$0.1937	R	\$0.0721	R	\$0.0211	\$0.0000	\$0.1032	\$0.6679	\$0.0623	\$0.2330
850,000 to 2 million	\$0.2601	\$0.0937	\$0.2358		\$0.0886	\$0.1036	\$0.1471	\$0.5432	\$0.0602	\$0.2306
370,000 to 850,000	\$0.3498	\$0.0218	\$0.1879		\$0.0878	R	\$0.2552	\$0.6523	\$0.0610	\$0.3123
190,000 to 370,000	\$0.3957	\$0.0523	\$0.1789	\$0.1540	\$0.1196	\$0.5903	\$0.3483	\$0.5000	\$0.0787	\$0.2686
125,000 to 190,000	\$0.4207	\$0.0566	\$0.1810	\$0.1520	\$0.1571	\$0.5268	\$0.3955	\$0.5250	\$0.1033	\$0.3043
90,000 to 125,000	\$0.5054	\$0.0807	\$0.2186	\$0.0910	\$0.2062	\$0.6238	\$0.4389	\$0.0753	\$0.1234	\$0.2626
60,000 to 90,000	\$0.4940	\$0.1021	\$0.2253	\$0.2511	\$0.2551	\$0.6740	\$0.4695	\$0.2004	\$0.1445	\$0.3416
less than 60,000	\$0.6621	\$0.1795	\$0.3199	\$0.1633	\$0.3210	\$0.6806	\$0.6246	\$0.2343	\$0.1971	\$0.3980
Average	\$0.4102	\$0.0932	\$0.2024	\$0.1602	\$0.1571	\$0.4860	\$0.3478	\$0.4248	\$0.1038	

⁴ The column averages for each State in Table 5 are weighted differently than the State averages in Table 1. Table 5 averages the hauling charge over the entire distribution of producer size ranges while Table 1 is weighted according to volume. This difference means for all three years Idaho and Other have higher average hauling charges in Table 5 than in Table 1 the reverse is true for the remaining States.

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 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 have more small to middle size dairy producers. Many of these producers are located within the vicinity of multiple milk processors. Therefore, these producers will 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 4 shows the average hauling charge, by size range, for all producer milk pooled on the market, for May 2002, 2003, and 2004.

Chart 4a

Average Hauling Charge, by Size Range, of Monthly Producer Deliveries for May 2002

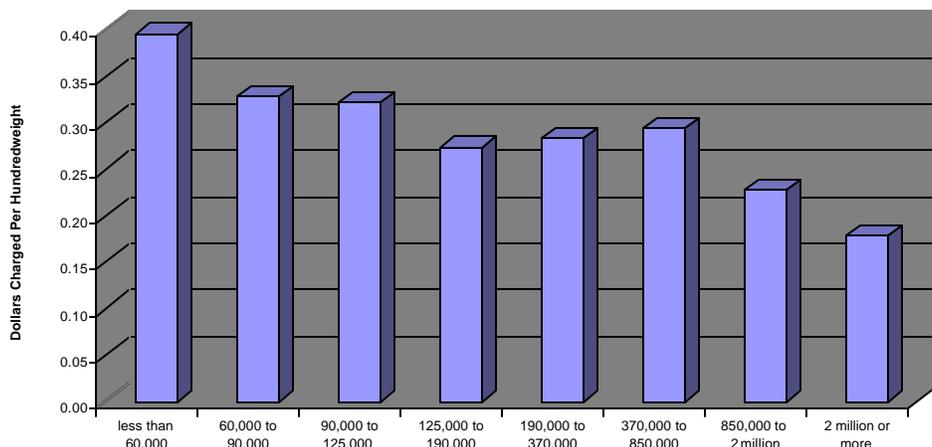


Chart 4b

Average Hauling Charge, by Size Range, of Monthly Producer Deliveries for May 2003

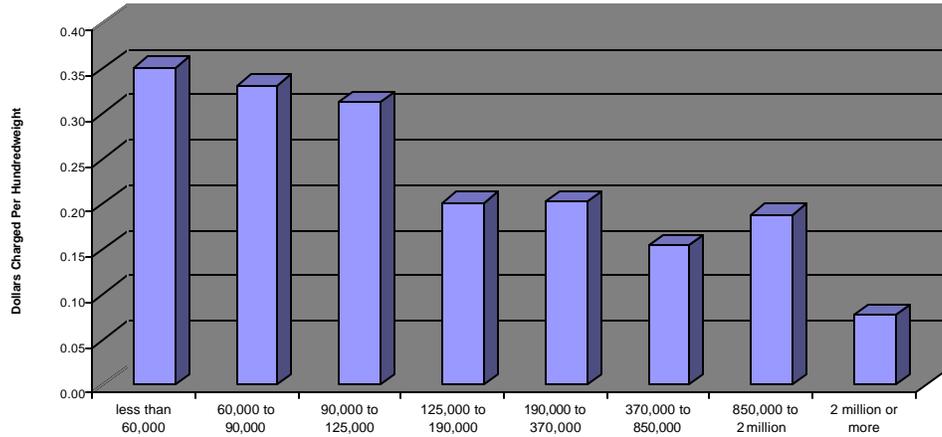
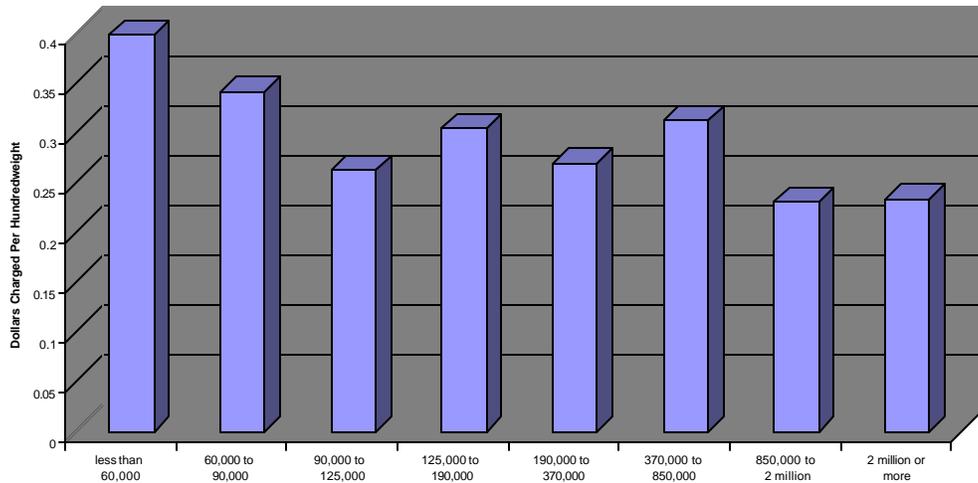


Chart 4c

Average Hauling Charge, by Size Range, of Monthly Producer Deliveries for May 2004



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. 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 on the Upper Midwest market during May 2002, 2003, and 2004. 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 on the Upper Midwest Marketing Order. The data 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 reported on payrolls to 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 2002 to 2004

Size	2002	2003	2004
2 million or more	0.33%	0.36%	0.50%
850,000 to 2 million	1.12%	1.27%	1.37%
370,000 to 850,000	2.63%	3.14%	3.35%
190,000 to 370,000	5.87%	6.28%	6.76%
125,000 to 190,000	10.36%	10.71%	11.32%
90,000 to 125,000	13.92%	14.07%	14.44%
60,000 to 90,000	20.58%	20.36%	19.98%
less than 60,000	45.18%	43.80%	42.27%

The data in Chart 5 categorizes all producers into eight evenly proportioned size ranges. Each size range represents about 388 million pounds of producer milk, or 12.5 percent of the nearly 3.1 billion pounds of producer milk reported on payrolls to the Upper Midwest Order for May 2004. This chart displays the percentage of producers that makes up each of these individual, evenly proportioned size ranges. This chart shows that roughly 42 percent of the market's producers make up the first of the eight evenly proportioned size ranges, and about 1/2 of one percent, the largest producers, make up the last of the eight evenly proportioned size ranges for May of 2004.

Chart 5a

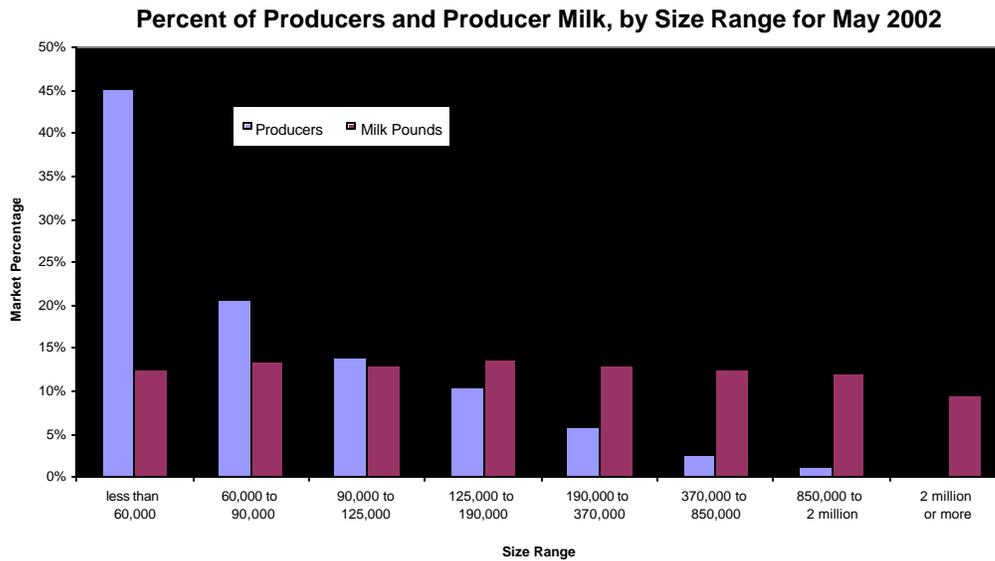


Chart 5b

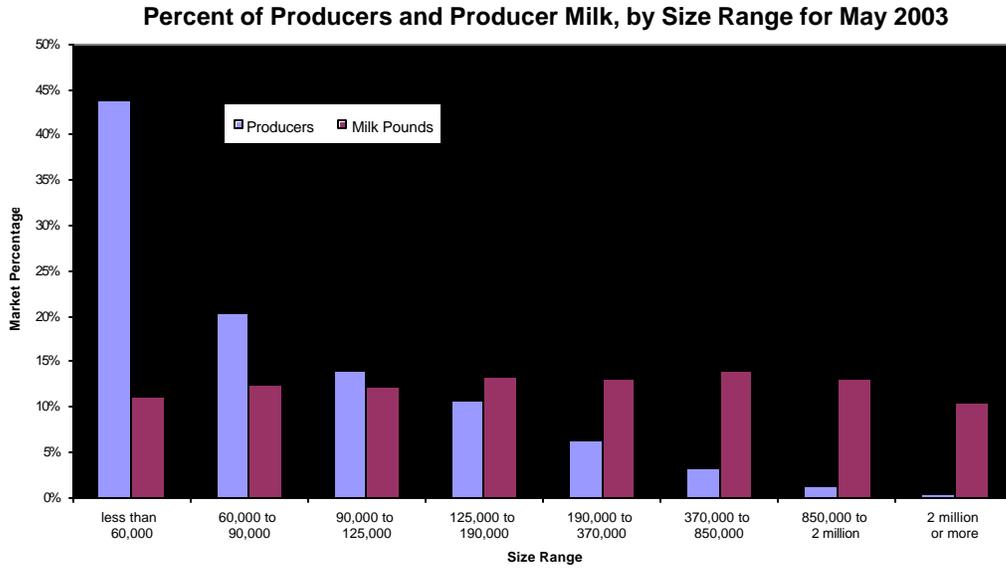
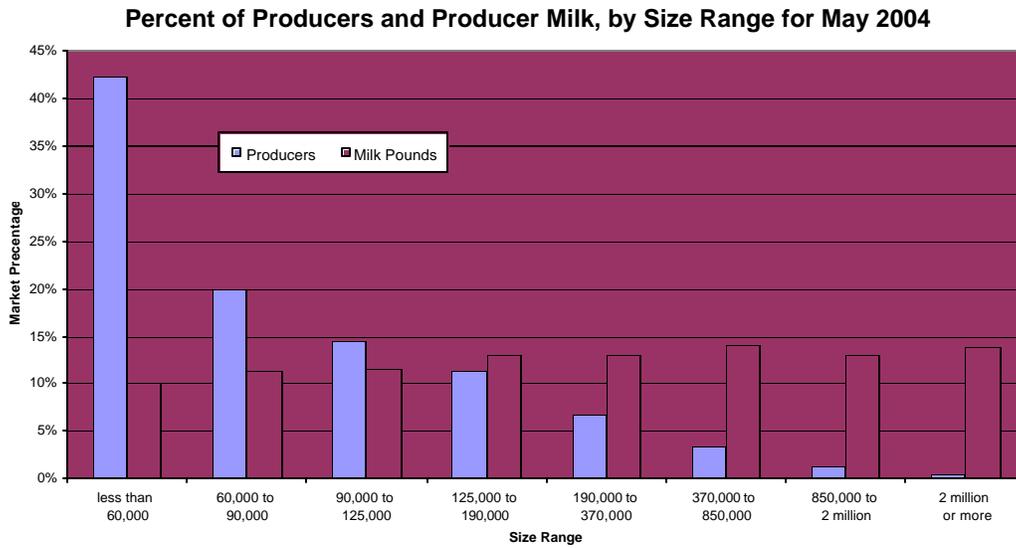


Chart 5c



IX. AVERAGE MILK HAULING CHARGE BY STATE AND COUNTY

Table 7 of the Appendix details the average milk hauling charge, per hundredweight, by state and county for the Upper Midwest Marketing Area for May 2002 (Table 7a), 2003 (Table 7b), and 2004 (Table 7c). The data in Table 7c represents dairy producers located in seventeen states and three hundred and forty counties for 2004.

In Table 7c, the listed counties with the highest average hauling charge rates were located in the States of Minnesota (1), North Dakota (8), and South Dakota (5). The average hauling charge for each of these counties ranged from \$1.38 to 90 cents per hundredweight. On the other hand, the lowest average hauling charge rates were found in the States of Illinois (3), Iowa (2), Michigan Upper Peninsula (3), and Wisconsin (4). The average hauling charges in each of these counties were found to be 5 cents or less 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. 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 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. 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 lack a couple of these “large dairy farm” operations that would otherwise have decreased the county’s average hauling rate considerably. For May 2004, the study found that the average milk volume for dairy producers charged in excess of 50 cents per

hundredweight was only 74,531 pounds. Many of these smaller farms were located in these semi-remote counties that are sparsely populated.

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 225,418 pounds, 150,887 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 significant. 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 8 cents per hundredweight in 2002 and 9 cents per hundredweight for May 2004. 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.

Table 8

Comparison of Smaller Verses Larger Than Market Average Dairy Farms for Five Wisconsin Counties and Their Average Hauling Rates for May 2002 to 2004

**Table 8a
Average Hauling Charge--2002**

<u>County</u>	<u>Average Hauling Charge (Dollars Per Cwt.)</u>		
County	All Producers	Less Than 113,000	Greater Than 113,000
Fond Du Lac	\$0.07	\$0.10	\$0.06
Green Lake	\$0.12	\$0.15	\$0.10
Marquette	\$0.04	\$0.08	\$0.02
Waushara	\$0.10	\$0.14	\$0.08
Winnebago	\$0.09	\$0.14	\$0.07
Simple Average	\$0.08	\$0.12	\$0.07

**Table 8b
Average Hauling Charge--2003**

<u>County</u>	<u>Average Hauling Charge (Dollars Per Cwt.)</u>		
County	All Producers	Less Than 121,333	Greater Than 121,333
Fond du Lac	\$0.05	\$0.07	\$0.04
Green Lake	\$0.10	\$0.17	\$0.07
Marquette	\$0.04	\$0.10	\$0.02
Waushara	\$0.13	\$0.17	\$0.10
Winnebago	\$0.08	\$0.15	\$0.05
Simple Average	\$0.08	\$0.13	\$0.06

**Table 8c
Average Hauling Charge--2004**

<u>County</u>	<u>Average Hauling Charge (Dollars Per Cwt.)</u>		
County	All Producers	Less Than 134,000	Greater Than 134,000
Fond Du Lac	\$0.04	\$0.07	\$0.03
Green Lake	\$0.08	\$0.08	\$0.05
Marquette	\$0.04	\$0.04	\$0.02
Waushara	\$0.13	\$0.13	\$0.09
Winnebago	\$0.11	\$0.14	\$0.09
Simple Average	\$0.08	\$0.12	\$0.06

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 the average 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 352 counties located in seventeen 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.

XI. REGRESSION ANALYSIS

A number of factors appear to influence the hauling costs for producers. One is their distance to a major fluid milk market. Two is their scale of production. Three is the composition of the county in which they reside. Four is the level of competition for their milk or the number of handlers available to bid to buy their milk.

Using the available data, proxies were constructed to estimate a stochastic model based on the above factors. Specifically, hauling charges data for 23,247 producers were regressed against their producer pounds, two discrete variables to indicate whether a supply or distributing plant was in their county, a variable indicating the number of plants in their county and, lastly, the number of producers in the county.

Variable	Type	Definition
Hauling Charges	quantitative	Dependent(y) variable
Constant	quantitative	Intercept term
Production(Q)	quantitative	Milk production in cwt.
Cluster	quantitative	Number of farms in county
Competition	quantitative	Number of Plants in county
DistanceS	discrete	1 if county contains a supply plant, 0 otherwise
DistanceD	discrete	1 if county contains a distributing plant, 0 otherwise

The Model

$$HC = c + \beta_1 Q + \beta_2 \text{Cluster} + \beta_3 \text{Competition} + \beta_4 \text{DistS} + \beta_5 \text{DistD}$$

The overall F for the above model is at a minimum 2827 a value significant at beyond the 99% level. This statistic indicates that the hypothesis the beta values equal zero is rejected.

Year	Variables	Model	
		Coefficient	t-statistic
2002	constant	91.86	19.27
	Producer Pounds	0.12	123.61
	Cluster	-0.14	-11.47
	Competition	3.07	0.42
	Distance to Supply Plant	-44.41	-7.61
	Distance to Distributing Plant	17.60	1.39
	Diagnostics		
	R-squared	0.41	
	Global F	3201	
2003	constant	98.69	24.79
	Producer Pounds	0.09	121.73
	Cluster	-0.08	-7.53
	Competition	-19.96	-5.53
	Distance to Supply Plant	-49.16	-9.60
	Distance to Distributing Plant	36.16	4.19
	Diagnostics		
	R-squared	0.40	
	Global F	3103	

Year	Variables	Model	
		Coefficient	t-statistic
2004	Constant	54.75	7.09
	Producer Pounds	0.15	117.30
	Cluster	-0.12	-5.78
	Competition	-17.88	-2.46
	Distance to Supply Plant	-47.74	-4.83
	Distance to Distributing Plant	20.27	1.22
Diagnostics			
	R-squared	0.37	
	Global F	2827	

For May of 2004 the model coefficients indicate a positive constant term somewhat less than the common flat fee hauling charge, a small positive beta value for producer pounds, anticipated negative coefficients for clusters of farms, competition among supply plants and the discrete variable of whether a supply plant is in the same county as the dairy farm. The unanticipated and large coefficient value is the discrete variable for the presence of a distributing plant in the same county as the dairy farm. It should also be noted that in Federal Order 30 a number of distributing plants are some distance from population centers, consistent with the notion that hauling charges increase as this distance increases. This unanticipated result is also mitigated somewhat by the fact that the t-statistic for the coefficient is not significant at normal confidence levels whereas the others are.

XI. 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, for May 2004, that the average producer delivery was 131,066 pounds and the median producer delivery was 70,639. This study found the state market average producer milk delivery was 821,000 pounds for May of 2004. The median state producer milk delivery was only 202,000 pounds. This study found that 90 percent of the producers on this market shipped less than 190,000 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.

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Idaho	Bannock	R
	Bingham	0.33
	Bonneville	R
	Cassia	0.18
	Franklin	R
	Gooding	0.30
	Jefferson	0.35
	Jerome	0.25
	Lincoln	0.23
	Madison	R
	Minidoka	0.22
	Power	R
	Twin Falls	0.20
Illinois	Boone	0.09
	Carroll	R
	Clinton	R
	De Kalb	0.09
	Jo Daviess	0.10
	Kane	0.12
	Kendall	R
	Lake	0.10
	Lee	R
	Marion	R
	Mchenry	0.10
	Monroe	R
	Ogle	0.15
	Stephenson	0.03
	Whiteside	0.10
	Will	R
Winnebago	0.07	
Indiana	Kosciusko	R
Iowa	Allamakee	0.15
	Bremer	R
	Buchanan	0.12
	Chickasaw	R
	Clayton	0.17
	Delaware	0.16
	Dubuque	0.12
	Fayette	R
Howard	0.55	

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Iowa (continued)	Iowa	R
	Jackson	0.20
	Jones	0.13
	Lyon	0.34
	Mitchell	R
	Osceola	R
	Plymouth	R
	Sioux	0.32
	Washington	R
	Winneshiek	0.26
	Worth	R
Kansas	Nemaha	R
Michigan	Delta	0.06
	Lenawee	R
	Marquette	R
	Menominee	0.22
Minnesota	Aitkin	0.36
	Anoka	0.12
	Becker	0.28
	Beltrami	0.40
	Benton	0.13
	Big Stone	0.27
	Blue Earth	0.08
	Brown	0.15
	Carlton	0.21
	Carver	0.19
	Cass	0.22
	Chippewa	0.13
	Chisago	0.23
	Clay	0.35
	Clearwater	0.46
	Cottonwood	0.09
	Crow Wing	0.15
	Dakota	0.21
	Dodge	0.10
	Douglas	0.16
	Faribault	0.06
	Fillmore	0.19
	Freeborn	0.23
	Goodhue	0.19

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Grant	0.47
	Hennepin	0.19
	Houston	0.21
	Hubbard	0.16
	Isanti	0.09
	Itasca	0.65
	Jackson	0.33
	Kanabec	0.24
	Kandiyohi	0.17
	Kittson	0.62
	Koochiching	0.41
	Lac Qui Parle	0.24
	Lake of the Woods	1.42
	Le Sueur	0.14
	Lincoln	0.25
	Lyon	0.31
	Mahnomen	0.22
	Marshall	0.71
	Martin	0.00
	McLeod	0.18
	Meeker	0.12
	Mille Lacs	0.19
	Morrison	0.10
	Mower	0.27
	Murray	0.34
	Nicollet	0.13
	Nobles	0.44
	Norman	0.39
	Olmsted	0.19
	Otter Tail	0.18
	Pennington	0.30
	Pine	0.24
	Pipestone	0.42
	Polk	0.55
	Pope	0.20
	Ramsey	R
	Red Lake	0.28
	Redwood	0.19
	Renville	0.15
	Rice	0.23
	Rock	0.18
	Roseau	0.72

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Scott	0.18
	Sherburne	0.12
	Sibley	0.16
	St. Louis	0.29
	Stearns	0.16
	Steele	0.19
	Stevens	0.14
	Swift	0.19
	Todd	0.17
	Traverse	R
	Wabasha	0.17
	Wadena	0.18
	Waseca	0.14
	Washington	0.23
	Watonwan	0.09
	Wilkin	0.20
	Winona	0.16
	Wright	0.17
	Yellow Medicine	0.22
Missouri	Greene	R
Nebraska	Madison	R
	Polk	R
North Dakota	Adams	R
	Barnes	0.14
	Benson	0.90
	Burleigh	0.63
	Cass	0.67
	Dickey	0.42
	Dunn	0.56
	Eddy	R
	Emmons	0.55
	Foster	R
	Grand Forks	1.08
	Grant	R
	Griggs	1.00
	Hettinger	R
	Kidder	0.51
	La Moure	0.61
	Logan	0.64

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
North Dakota (continued)		
	McHenry	R
	McIntosh	0.64
	McKenzie	0.65
	McLean	0.87
	Mercer	R
	Morton	0.69
	Nelson	0.60
	Oliver	0.69
	Pierce	0.91
	Ramsey	R
	Ransom	0.12
	Richland	0.30
	Rolette	R
	Sargent	0.61
	Sheridan	R
	Stark	0.59
	Stutsman	0.46
	Traill	R
	Walsh	R
	Ward	R
	Wells	0.87
South Dakota		
	Beadle	0.35
	Brookings	0.24
	Brown	0.44
	Butte	R
	Campbell	0.25
	Clark	0.33
	Codington	0.37
	Corson	R
	Davison	0.98
	Day	0.21
	Deuel	0.23
	Douglas	0.87
	Edmunds	0.19
	Faulk	0.60
	Grant	0.17
	Hamlin	0.43
	Hand	0.53
	Hanson	R
	Hutchinson	0.84
	Hyde	R

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
South Dakota (continued)		
	Kingsbury	0.32
	Lake	R
	Lincoln	0.44
	Marshall	0.08
	McCook	0.53
	McPherson	0.28
	Miner	0.66
	Minnehaha	0.30
	Moody	0.48
	Potter	0.88
	Roberts	0.19
	Sanborn	R
	Spink	0.66
	Turner	0.51
	Walworth	0.28
Utah	Cache	0.46
Wisconsin	Adams	0.08
	Ashland	0.12
	Barron	0.17
	Bayfield	0.21
	Brown	0.08
	Buffalo	0.10
	Burnett	0.17
	Calumet	0.10
	Chippewa	0.12
	Clark	0.08
	Columbia	0.08
	Crawford	0.12
	Dane	0.06
	Dodge	0.09
	Door	0.27
	Douglas	0.22
	Dunn	0.10
	Eau Claire	0.14
	Florence	0.09
	Fond du Lac	0.07
	Forest	0.12
	Grant	0.12
	Green	0.09
	Green Lake	0.12

Table 7a

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2002**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Wisconsin (continued)		
	Iowa	0.08
	Iron	0.36
	Jackson	0.10
	Jefferson	0.09
	Juneau	0.09
	Kenosha	0.10
	Kewaunee	0.15
	La Crosse	0.11
	Lafayette	0.08
	Langlade	0.06
	Lincoln	0.12
	Manitowoc	0.13
	Marathon	0.07
	Marinette	0.15
	Marquette	0.04
	Milwaukee	R
	Monroe	0.10
	Oconto	0.11
	Oneida	R
	Outagamie	0.07
	Ozaukee	0.14
	Pepin	0.10
	Pierce	0.13
	Polk	0.12
	Portage	0.07
	Price	0.09
	Racine	0.09
	Richland	0.10
	Rock	0.09
	Rusk	0.14
	Sauk	0.07
	Sawyer	0.14
	Shawano	0.13
	Sheboygan	0.10
	St. Croix	0.11
	Taylor	0.10
	Trempealeau	0.11
	Vernon	0.12
	Walworth	0.07
	Washburn	0.12
	Washington	0.09
	Waukesha	0.07

Table 7a

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2002

State	County	Average Hauling Charge (Dollars Per Cwt.)
Wisconsin (continued)		
	Waupaca	0.12
	Waushara	0.10
	Winnebago	0.09
	Wood	0.06

Table 7b

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2003

State	County	Average Hauling Charge (Dollars Per Cwt.)
Idaho	Ada	0.29
	Bannock	R
	Bingham	0.00
	Blaine	R
	Bonneville	R
	Butte	R
	Cassia	0.13
	Elmore	R
	Franklin	R
	Gem	0.53
	Gooding	0.23
	Jefferson	0.00
	Jerome	0.17
	Lewis	R
	Lincoln	0.22
	Madison	R
	Minidoka	0.14
	Owyhee	R
	Payette	R
	Power	R
	Shoshone	R
	Twin Falls	0.21

Table 7b**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2003**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Illinois	Boone	0.09
	Bureau	R
	Carroll	0.22
	De Kalb	0.08
	Jo Daviess	0.13
	Kane	0.11
	Kendall	R
	Lake	0.01
	McHenry	0.10
	Monroe	R
	Ogle	0.09
	Rock Island	0.22
	Stephenson	0.04
	Whiteside	0.22
	Will	R
Winnebago	0.08	
Iowa	Allamakee	0.19
	Bremer	R
	Buchanan	0.11
	Cedar	R
	Cerro Gordo	R
	Chickasaw	R
	Clayton	0.21
	Clinton	0.22
	Delaware	0.14
	Dubuque	0.15
	Fayette	0.18
	Howard	0.14
	Ida	R
	Iowa	R
	Jackson	0.20
	Jones	0.22
	Louisa	R
	Lyon	0.31
	Mitchell	0.09
	Muscatine	0.21
	Osceola	R
	Plymouth	R
	Scott	0.24
Sioux	0.32	
Washington	R	
Winneshiek	0.18	
Worth	R	

Table 7b

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2003

State	County	Average Hauling Charge (Dollars Per Cwt.)
Kansas	Nemaha	R
Michigan	Delta	0.05
	Lenawee	R
	Marquette	R
	Menominee	0.24
Minnesota	Aitkin	0.38
	Anoka	0.32
	Becker	0.19
	Beltrami	0.28
	Benton	0.11
	Big Stone	0.26
	Blue Earth	0.08
	Brown	0.16
	Carlton	0.21
	Carver	0.16
	Cass	0.14
	Chippewa	0.11
	Chisago	0.18
	Clay	0.21
	Clearwater	0.41
	Cottonwood	0.14
	Crow Wing	0.16
	Dakota	0.19
	Dodge	0.10
	Douglas	0.44
	Faribault	0.07
	Fillmore	0.19
	Freeborn	0.20
	Goodhue	0.17
	Grant	0.29
	Hennepin	0.18
	Houston	0.20
	Hubbard	0.19
	Isanti	0.07
	Itasca	0.60
	Jackson	0.40
	Kanabec	0.17
Kandiyohi	0.15	
Kittson	1.25	
Koochiching	0.34	
Lac Qui Parle	0.26	

Table 7b

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2003

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Lake of the Woods	0.84
	Le Sueur	0.15
	Lincoln	0.28
	Lyon	0.37
	Mahnomen	0.20
	Marshall	0.37
	Martin	0.14
	McLeod	0.16
	Meeker	0.12
	Mille Lacs	0.16
	Morrison	0.15
	Mower	0.11
	Murray	0.35
	Nicollet	0.14
	Nobles	0.45
	Norman	0.15
	Olmsted	0.19
	Otter Tail	0.23
	Pennington	0.09
	Pine	0.19
	Pipestone	0.42
	Polk	0.30
	Pope	0.17
	Ramsey	R
	Red Lake	0.15
	Redwood	0.20
	Renville	0.15
	Rice	0.24
	Rock	0.17
	Roseau	0.37
	Scott	0.18
	Sherburne	0.10
	Sibley	0.13
	St. Louis	0.29
	Stearns	0.14
	Steele	0.19
	Stevens	0.10
	Swift	0.16
	Todd	0.21
	Traverse	R
	Wabasha	0.16
	Wadena	0.21

Table 7b**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2003**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Waseca	0.14
	Washington	0.23
	Watonwan	0.13
	Wilkin	0.13
	Winona	0.16
	Wright	0.13
	Yellow Medicine	0.17
Missouri	Greene	R
Nebraska	Madison	R
	Polk	R
North Dakota	Adams	R
	Barnes	0.15
	Benson	R
	Burleigh	0.62
	Cass	0.43
	Dickey	0.38
	Dunn	0.58
	Eddy	R
	Emmons	0.51
	Foster	R
	Grand Forks	0.47
	Grant	R
	Griggs	R
	Hettinger	R
	Kidder	0.50
	La Moure	0.45
	Logan	0.51
	McHenry	0.95
	McIntosh	0.50
	McKenzie	R
	Mclean	0.88
	Mercer	R
	Morton	0.66
	Mountrail	R
	Nelson	0.12
	Oliver	0.70
	Pierce	0.91
	Ransom	0.11
	Richland	0.29
	Rolette	R

Table 7b

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2003

State	County	Average Hauling Charge (Dollars Per Cwt.)
North Dakota (continued)		
	Sargent	0.05
	Sheridan	R
	Stark	0.53
	Stutsman	0.26
	Walsh	R
	Ward	R
	Wells	0.86
South Dakota		
	Beadle	0.39
	Brookings	0.21
	Brown	0.48
	Butte	R
	Campbell	0.24
	Clark	0.33
	Codington	0.36
	Corson	R
	Davison	1.06
	Day	0.17
	Deuel	0.20
	Douglas	0.89
	Edmunds	0.09
	Faulk	0.61
	Grant	0.16
	Hamlin	0.47
	Hand	0.52
	Hanson	R
	Hutchinson	0.84
	Hyde	R
	Kingsbury	0.28
	Lake	R
	Lincoln	0.44
	Marshall	0.07
	McCook	0.49
	McPherson	0.27
	Miner	0.69
	Minnehaha	0.27
	Moody	0.51
	Potter	0.89
	Roberts	0.18
	Sanborn	R
	Spink	0.70
	Turner	0.10
	Walworth	R

Table 7b

**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2003**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Utah	Cache	0.00
Wisconsin	Adams	0.08
	Ashland	0.11
	Barron	0.15
	Bayfield	0.20
	Brown	0.08
	Buffalo	0.08
	Burnett	0.17
	Calumet	0.09
	Chippewa	0.13
	Clark	0.11
	Columbia	0.09
	Crawford	0.12
	Dane	0.07
	Dodge	0.07
	Door	0.23
	Douglas	0.25
	Dunn	0.09
	Eau Claire	0.10
	Florence	0.12
	Fond du Lac	0.05
	Forest	0.11
	Grant	0.14
	Green	0.08
	Green Lake	0.10
	Iowa	0.08
	Iron	0.36
	Jackson	0.08
	Jefferson	0.10
	Juneau	0.12
	Kenosha	0.11
	Kewaunee	0.15
	La Crosse	0.12
	Lafayette	0.08
	Langlade	0.08
	Lincoln	0.10
	Manitowoc	0.12
	Marathon	0.11
	Marinette	0.15
	Marquette	0.04
	Milwaukee	R
	Monroe	0.11
	Oconto	0.11

Table 7b

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2003

State	County	Average Hauling Charge (Dollars Per Cwt.)
Wisconsin (continued)		
	Oneida	R
	Outagamie	0.08
	Ozaukee	0.05
	Pepin	0.09
	Pierce	0.12
	Polk	0.11
	Portage	0.07
	Price	0.10
	Racine	0.09
	Richland	0.12
	Rock	0.09
	Rusk	0.18
	Sauk	0.08
	Sawyer	0.13
	Shawano	0.14
	Sheboygan	0.06
	St. Croix	0.10
	Taylor	0.12
	Trempealeau	0.08
	Vernon	0.13
	Walworth	0.07
	Washburn	0.11
	Washington	0.04
	Waukesha	0.10
	Waupaca	0.06
	Waushara	0.13
	Winnebago	0.08
	Wood	0.08

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Georgia	Mitchell	R
Idaho	Ada	0.39
	Bannock	R
	Bingham	0.25
	Blaine	R
	Butte	R
	Canyon	0.27
	Cassia	0.12
	Elmore	R
	Franklin	R
	Gem	0.44
	Gooding	0.25
	Jefferson	0.38
	Jerome	0.21
	Lincoln	0.26
	Madison	R
	Minidoka	0.21
	Owyhee	0.27
	Payette	0.50
	Twin Falls	0.21
	Washington	R
Illinois	Boone	0.09
	Bureau	0.16
	Carroll	0.17
	De Kalb	0.08
	Henry	R
	Jo Daviess	0.09
	Kane	0.11
	Kendall	R
	Lake	0.01
	Lee	0.15
	McHenry	0.09
	Monroe	R
	Ogle	0.09
	Peoria	R
	Rock Island	0.20
	Stark	R
	Stephenson	0.03
	Washington	R
	Whiteside	0.19
	Will	R
	Winnebago	0.10

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Indiana	Kosciusko	R
	La Porte	R
	Miami	R
Iowa	Allamakee	0.17
	Appanoose	R
	Benton	0.12
	Black Hawk	R
	Bremer	0.23
	Buchanan	0.16
	Butler	0.25
	Cedar	0.22
	Cerro Gordo	R
	Chickasaw	0.23
	Clayton	0.19
	Clinton	0.17
	Dallas	R
	Davis	0.43
	Decatur	0.23
	Delaware	0.19
	Des Moines	0.24
	Dubuque	0.17
	Fayette	0.17
	Floyd	0.28
	Franklin	R
	Grundy	R
	Hardin	0.28
	Henry	R
	Howard	0.15
	Ida	R
	Iowa	0.21
	Jackson	0.18
	Jasper	R
	Johnson	0.23
	Jones	0.14
	Lee	0.24
Linn	0.24	
Louisa	R	
Lucas	R	
Lyon	0.35	
Mahaska	R	
Marion	0.23	
Marshall	R	
Mitchell	0.16	

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Iowa (continued)	Muscatine	0.21
	Osceola	R
	Plymouth	R
	Polk	R
	Poweshiek	R
	Scott	0.22
	Sioux	0.31
	Story	R
	Tama	0.23
	Van Buren	R
	Washington	0.23
	Winneshiek	0.16
	Worth	0.32
Kansas	Nemaha	R
Michigan	Delta	0.04
	Dickinson	R
	Lenawee	R
	Marquette	R
	Menominee	0.18
Minnesota	Aitkin	0.37
	Anoka	0.29
	Becker	0.15
	Beltrami	0.30
	Benton	0.14
	Big Stone	0.30
	Blue Earth	0.11
	Brown	0.16
	Carlton	0.19
	Carver	0.15
	Cass	0.15
	Chippewa	0.15
	Chisago	0.16
	Clay	0.20
	Clearwater	0.47
	Cottonwood	0.13
	Crow Wing	0.17
	Dakota	0.18
	Dodge	0.11
	Douglas	0.21
Faribault	0.07	
Fillmore	0.19	

Table 7c

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2004

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Freeborn	0.22
	Goodhue	0.17
	Grant	0.17
	Hennepin	0.17
	Houston	0.20
	Hubbard	0.22
	Isanti	0.06
	Itasca	0.68
	Kanabec	0.16
	Kandiyohi	0.15
	Kittson	0.23
	Koochiching	0.36
	Lac Qui Parle	0.24
	Lake of the Woods	R
	Le Sueur	0.11
	Lincoln	0.31
	Lyon	0.38
	Mahnomen	0.15
	Marshall	0.34
	Martin	0.17
	McLeod	0.17
	Meeker	0.12
	Mille Lacs	0.15
	Morrison	0.14
	Mower	0.15
	Murray	0.40
	Nicollet	0.09
	Nobles	0.43
	Norman	0.14
	Olmsted	0.19
	Otter Tail	0.17
	Pennington	0.30
	Pine	0.14
	Pipestone	0.46
	Polk	0.36
	Pope	0.17
	Ramsey	R
	Red Lake	0.10
	Redwood	0.24
	Renville	0.12
	Rice	0.24
	Rock	0.18
	Roseau	0.38

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
Minnesota (continued)		
	Scott	0.17
	Sherburne	0.07
	Sibley	0.13
	St. Louis	0.26
	Stearns	0.14
	Steele	0.20
	Stevens	0.10
	Swift	0.17
	Todd	0.18
	Wabasha	0.15
	Wadena	0.21
	Waseca	0.14
	Washington	0.22
	Watonwan	0.12
	Wilkin	0.13
	Winona	0.17
	Wright	0.11
	Yellow Medicine	0.08
Missouri	Franklin	R
	Greene	R
Montana	Dawson	R
Nebraska	Madison	R
	Polk	R
North Dakota	Adams	R
	Barnes	0.16
	Benson	R
	Burleigh	0.70
	Cass	0.38
	Dickey	0.38
	Dunn	0.70
	Eddy	R
	Emmons	0.52
	Foster	R
	Grand Forks	0.44
	Grant	R
	Griggs	R
	Hettinger	R
	Kidder	0.52
	La Moure	0.42

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
North Dakota (continued)		
	Logan	0.39
	McIntosh	0.53
	McKenzie	0.65
	McLean	0.90
	Mercer	0.77
	Morton	0.70
	Mountrail	R
	Nelson	0.16
	Oliver	0.75
	Pierce	0.91
	Ransom	0.08
	Richland	0.28
	Rolette	R
	Sargent	R
	Sheridan	R
	Stark	0.59
	Stutsman	0.24
	Walsh	R
	Wells	R
Ohio		
	Ashland	R
	Holmes	0.16
	Huron	R
	Richland	0.13
	Tuscarawas	R
	Wayne	0.11
Oregon		
	Baker	R
South Dakota		
	Beadle	0.41
	Brookings	0.22
	Brown	0.46
	Butte	R
	Campbell	0.24
	Charles Mix	R
	Clark	0.43
	Codington	0.29
	Davison	1.00
	Day	0.23
	Deuel	0.22
	Douglas	0.92
	Edmunds	0.11
	Faulk	0.87

Table 7c**Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004**

State	County	Average Hauling Charge (Dollars Per Cwt.)
South Dakota (continued)		
	Grant	0.16
	Hamlin	0.31
	Hand	0.49
	Hanson	0.83
	Hutchinson	1.02
	Hyde	R
	Kingsbury	0.21
	Lake	R
	Lincoln	0.43
	Marshall	0.09
	McCook	0.50
	McPherson	0.30
	Miner	0.71
	Minnehaha	0.28
	Moody	R
	Potter	R
	Roberts	0.18
	Sanborn	R
	Spink	0.64
	Turner	0.53
	Walworth	R
Utah	Cache	R
Wisconsin	Adams	0.10
	Ashland	0.13
	Barron	0.16
	Bayfield	0.19
	Brown	0.10
	Buffalo	0.10
	Burnett	0.16
	Calumet	0.09
	Chippewa	0.12
	Clark	0.10
	Columbia	0.07
	Crawford	0.14
	Dane	0.05
	Dodge	0.06
	Door	0.24
	Douglas	0.26
	Dunn	0.09
	Eau Claire	0.12
	Florence	0.11

Table 7c

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for May 2004

State	County	Average Hauling Charge (Dollars Per Cwt.)
Wisconsin (continued)		
	Fond du Lac	0.04
	Forest	0.25
	Grant	0.12
	Green	0.08
	Green Lake	0.08
	Iowa	0.08
	Iron	0.39
	Jackson	0.09
	Jefferson	0.07
	Juneau	0.10
	Kenosha	0.12
	Kewaunee	0.17
	La Crosse	0.12
	Lafayette	0.08
	Langlade	0.32
	Lincoln	0.14
	Manitowoc	0.13
	Marathon	0.10
	Marinette	0.17
	Marquette	0.04
	Milwaukee	R
	Monroe	0.10
	Oconto	0.12
	Oneida	R
	Outagamie	0.13
	Ozaukee	0.05
	Pepin	0.09
	Pierce	0.12
	Polk	0.11
	Portage	0.08
	Price	0.09
	Racine	0.08
	Richland	0.10
	Rock	0.10
	Rusk	0.15
	Sauk	0.07
	Sawyer	0.14
	Shawano	0.20
	Sheboygan	0.06
	St. Croix	0.10
	Taylor	0.11
	Trempealeau	0.10
	Vernon	0.13

Table 7c

Upper Midwest Order Reported Payroll Average Hauling Charge, by State and County for
May 2004

State	County	Average Hauling Charge (Dollars Per Cwt.)
Wisconsin (continued)		
	Walworth	0.07
	Washburn	0.11
	Washington	0.03
	Waukesha	0.10
	Waupaca	0.12
	Waushara	0.13
	Winnebago	0.11
	Wood	0.07
