Trucking Industry Churn

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1. Introduction

The trucking industry is dynamic, and has been growing along with the economy. Many companies have come and gone, but many have been in business for many years. An increasing number of motor carriers can indicate a healthy industry and economy. While an increasing total number of motor carriers may indicate the vitality of the industry, perhaps more important than the total number of trucking companies is the longevity and churn of trucking companies. If there are 100 companies this year and 120 companies next year, have we merely added 20 companies? Or have 80 companies gone out of business and 100 companies started up? There is a major difference between the two scenarios. The stability of firms in the trucking industry impacts their ability to adopt new technologies, the relationships they have with shippers, their safety records, and their ability to compete on a regional, national, and international basis.

Churn is to firms what turnover is to employees. There will always be some level of churn and zero churn would not be healthy. “Capitalism, then, is by nature a form or method of economic change and not only never is, but never can be stationary” (Schumpter, 1950, p. 82). Churn can be considered a process of creative destruction. However, churn carries a cost, and in the case of the trucking industry, that cost eventually falls on the shippers and consumers, not to mention the personal and career costs of those involved in the trucking company.

2. Background and Methodology

The Upper Great Plains Transportation Institute has published a motor carrier directory for nearly two decades. Directories were published in 1985, 1988, 1991, 1995, 1998, 2000, and 2003. While the early emphasis was on grain trucking companies, the scope was broadened to include all types of trucking companies in North Dakota. The procedure for developing the directories involves getting a list of carriers from the North Dakota Department of Transportation of companies or individuals that have commercial vehicles registered in North Dakota. In 2003, this list had 2,480 records. A survey was then sent to all the listings and the returned surveys are the basis for the directory.

The questionnaire itself is a simple one-page survey that already has the company’s name address and phone already printed on it. Respondents are asked to verify or correct the information. The next section of the questionnaire asks how many tractors, trailers, and trucks they operate. There seems to be some confusion about the difference between a tractor and a truck, but they fill in the information to the best of their abilities. The third section addresses what types of trailers are used. There is a listing of six types plus an “other” option. They can choose all that apply. The next section asks where respondents operate and gives them five choices, again asking them to choose all that apply. The fifth section asks if they are truckload or less-than-truckload and for-hire or private. They are asked to choose one in each pair. There are cases where they choose both answers. The next section asks respondents to identify their typical cargo. They are given 23 choices plus an “other” option and asked to check their three most common cargoes. The last section is simply an area to add phone, fax, e-mail, and website information.

The method of gathering information for the directory predestines it to be an incomplete listing of motor carriers operating in the state. However, it does seem to list the major motor carriers and those companies/individuals that focus on trucking. Many of the 2,480 motor carriers on the DOT list in 2003 were farms that own a single truck for their own use or companies that have trucks that are ancillary to their major business. Some of these make it into the directory, but the vast majority do not. The directory then, is a fair representation of the active motor carriers in the state – not an exhaustive listing.

3. Current Year (2003)

The North Dakota Motor Carrier Directory for 2003 was completed in March 2003. There were 444 carriers listed. Many different types of information are collected about the carriers including the type of equipment they own, the area in which they operate, and their typical cargo hauled, as well as basic company information such as address, phone, and e-mail. Table 1 shows how the listed carriers broken out by the various descriptors.

Table 1 North Dakota Motor Carrier Directory Statistics 2003[1]

444		Number of Carriers Listed
2,918		Number of Tractors Listed
5,131		Number of Trailers Listed
673		Number of Trucks Listed
95	21%	Number of Carriers Listed with Dry Vans
71	16%	Number of Carriers Listed with Refrigerated Vans
229	52%	Number of Carriers Listed with Hopper-Bottom Trailers
50	11%	Number of Carriers Listed with Tankers
191	43%	Number of Carriers Listed with Flatbed Trailers
7	2%	Number of Carriers Listed with Household Goods Trailers
127	29%	Number of Carriers Listed with Other Types of Trailers
118	27%	Number of Carriers Listed Indicating Intrastate Operations
287	65%	Number of Carriers Listed Indicating Regional Operations
210	47%	Number of Carriers Listed Indicating Nationwide Operations
111	25%	Number of Carriers Listed Indicating Canadian Operations
1	0%	Number of Carriers Listed Indicating Mexican Operations
282	64%	Number of Carriers Listed Indicating Truckload Operations
37	8%	Number of Carriers Listed Indicating Less-Than-Truckload Operations
336	76%	Number of Carriers Listed Indicating For-Hire Operations
56	13%	Number of Carriers Listed Indicating Private Operations
184	41%	Number of Carriers Listed Indicating General Freight Cargo
106	24%	Number of Carriers Listed Indicating Building Materials Cargo
17	4%	Number of Carriers Listed Indicating Household Goods Cargo
5	1%	Number of Carriers Listed Indicating Mobile Homes Cargo
83	19%	Number of Carriers Listed Indicating Metal Cargo
114	26%	Number of Carriers Listed Indicating Machinery Cargo
43	10%	Number of Carriers Listed Indicating Motor Vehicles Cargo
52	12%	Number of Carriers Listed Indicating Produce Cargo
95	21%	Number of Carriers Listed Indicating Lumber Cargo
29	7%	Number of Carriers Listed Indicating Liquids/Gases Cargo
7	2%	Number of Carriers Listed Indicating Intermodal Cargo
47	11%	Number of Carriers Listed Indicating Oilfield Cargo
48	11%	Number of Carriers Listed Indicating Livestock Cargo
23	5%	Number of Carriers Listed Indicating Chemicals Cargo
251	57%	Number of Carriers Listed Indicating Grain/Feed/Hay Cargo
131	30%	Number of Carriers Listed Indicating Bulk Cargo
47	11%	Number of Carriers Listed Indicating Coal Cargo
48	11%	Number of Carriers Listed Indicating Refrigerated Food Cargo
19	4%	Number of Carriers Listed Indicating Meat Cargo
35	8%	Number of Carriers Listed Indicating Beverages Cargo
7	2%	Number of Carriers Listed Indicating Garbage/Refuse Cargo
42	9%	Number of Carriers Listed Indicating Paper Cargo
31	7%	Number of Carriers Listed Indicating Hazardous Materials Cargo
73	16%	Number of Carriers Listed Indicating Other Types of Cargo
30	7%	Number of Carriers Listed Indicating Web Sites
156	35%	Number of Carriers Listed Indicating E-Mail

[1] The numbers in this table vary from the numbers found in the printed version of the North Dakota Motor Carrier Directory 2003 due to additional carriers being added to the electronic version after publication of the printed edition.

Many carriers in North Dakota are agricultural-related. Whether they haul for their own business or haul for others, agriculture accounts for a large proportion of the trucking industry in North Dakota. This plays out in the types of trailers most prevalent in the state (see Figure 1). The two most common trailer types are hopper-bottom (often used for grain) and flatbed trailers (often used for farm equipment) with 229 and 191 carriers indicating those trailer types, respectively. These trailers have applications other than agriculture, such as construction. Some of the other types of trailers can also be agriculture-based, such as dry and refrigerated vans and tankers. However, these trailers service all sectors of the North Dakota economy including manufacturing and retail services.

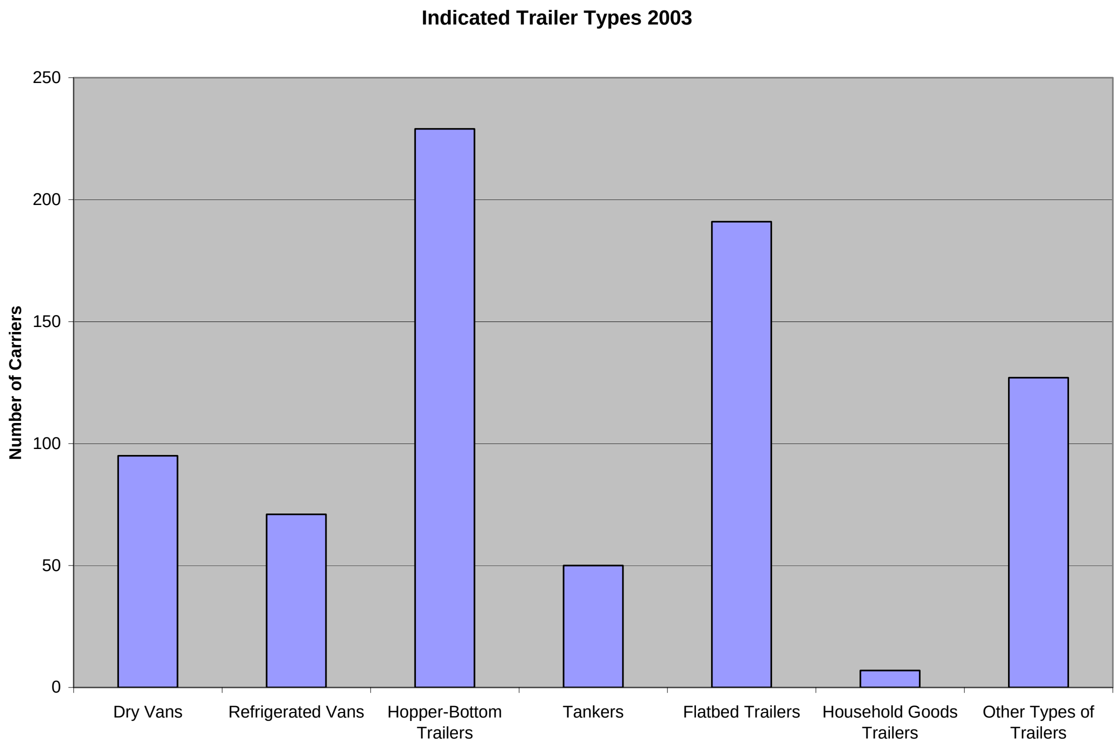

Figure 1 Trailer Types

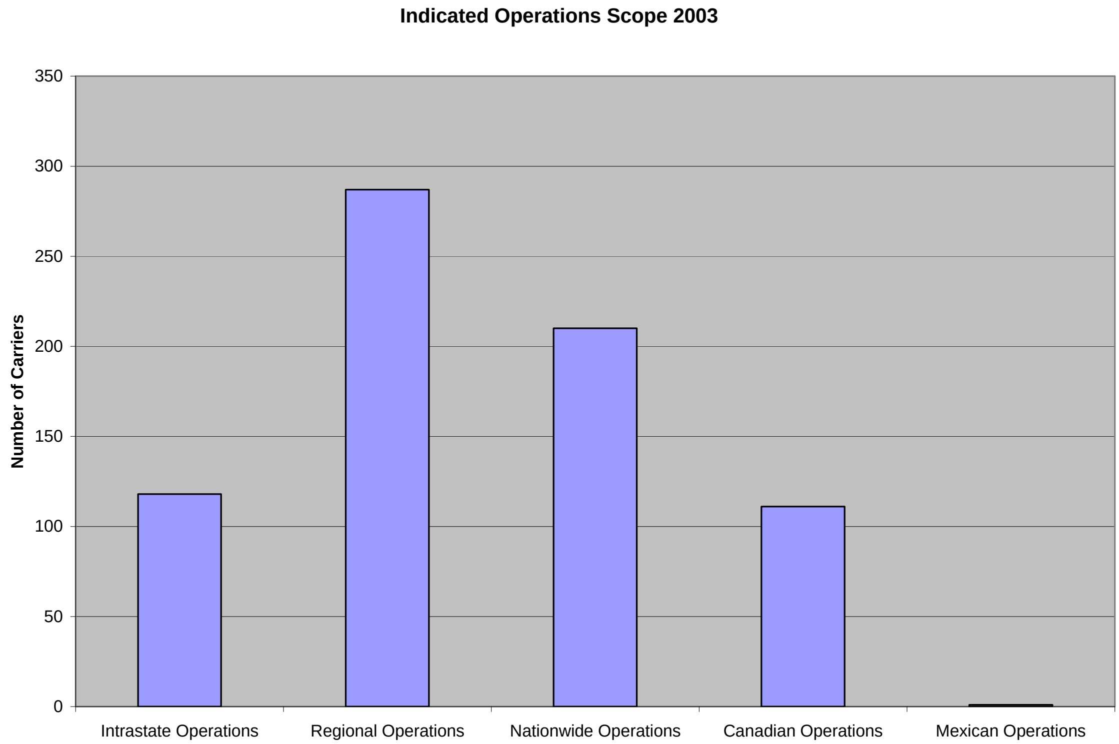

Figure 2 Operations Scope

North Dakota motor carriers service a large part of the North American continent. Relatively few carriers haul only locally on an in-state (intrastate) basis. Most carriers will haul regionally (287), which again is probably tied to the agriculture industry in the state (see Figure 2). Many agricultural commodities are hauled to markets in Minnesota, either in Duluth or in the Minneapolis-St. Paul metropolitan area. Nearly half of the carriers included provide nationwide service (210). Better than a quarter of them (111) also haul across the northern border into Canada. Only one carrier indicated that it hauls into Mexico. For carriers in North Dakota the North American Free Trade Agreement is focused mainly on the Canadian market.

Truckload (TL) carriers dominate the North Dakota motor carrier industry with 282 indicating this type of operation (see Figure 3). Both the types of freight shipped in the state as well as the relative ease of entering the truckload industry probably contribute to this. There are relatively few (37) less-than-truckload (LTL) carriers in the state. The major nationwide LTL carriers are represented as well as some local companies. The TL/LTL split echoes the pattern nationwide.

Most of the carriers (336) responding to the directory survey indicated that they were for-hire (see Figure 4). While this may be reflective of the industry, it is also a possible bias in the survey. A listing in the North Dakota Motor Carrier Directory is probably more appealing and beneficial to for-hire operations than private operations, which may in turn affect their response rate.

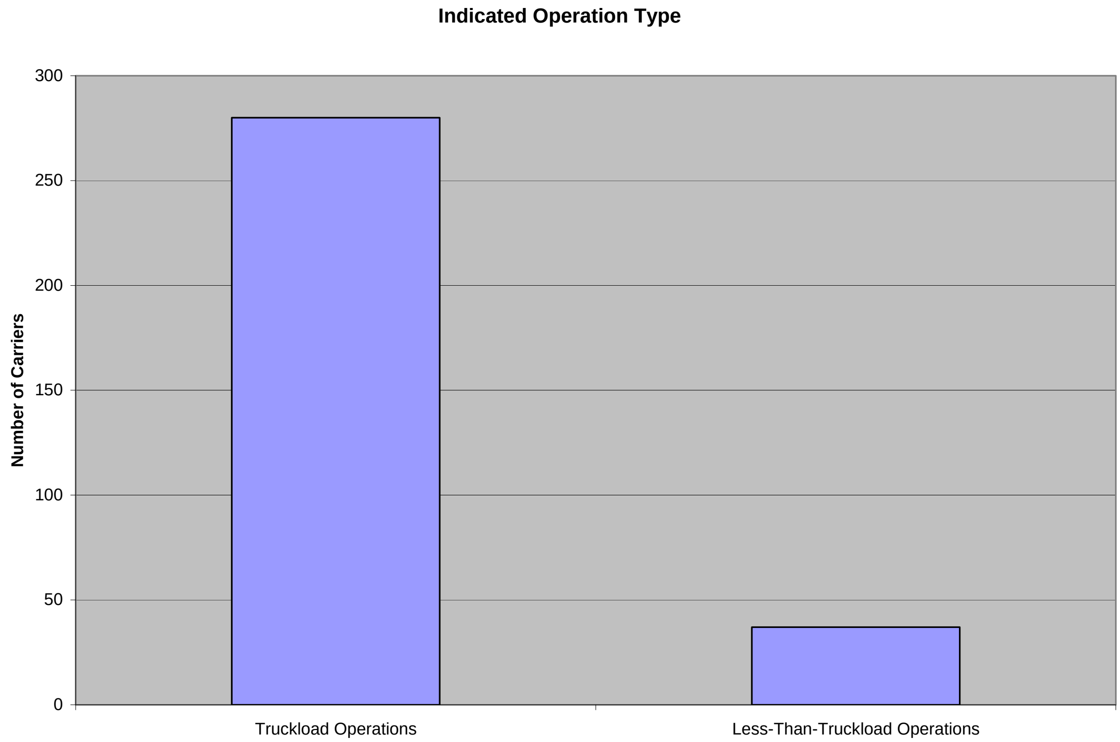

Figure 3 Operation Type

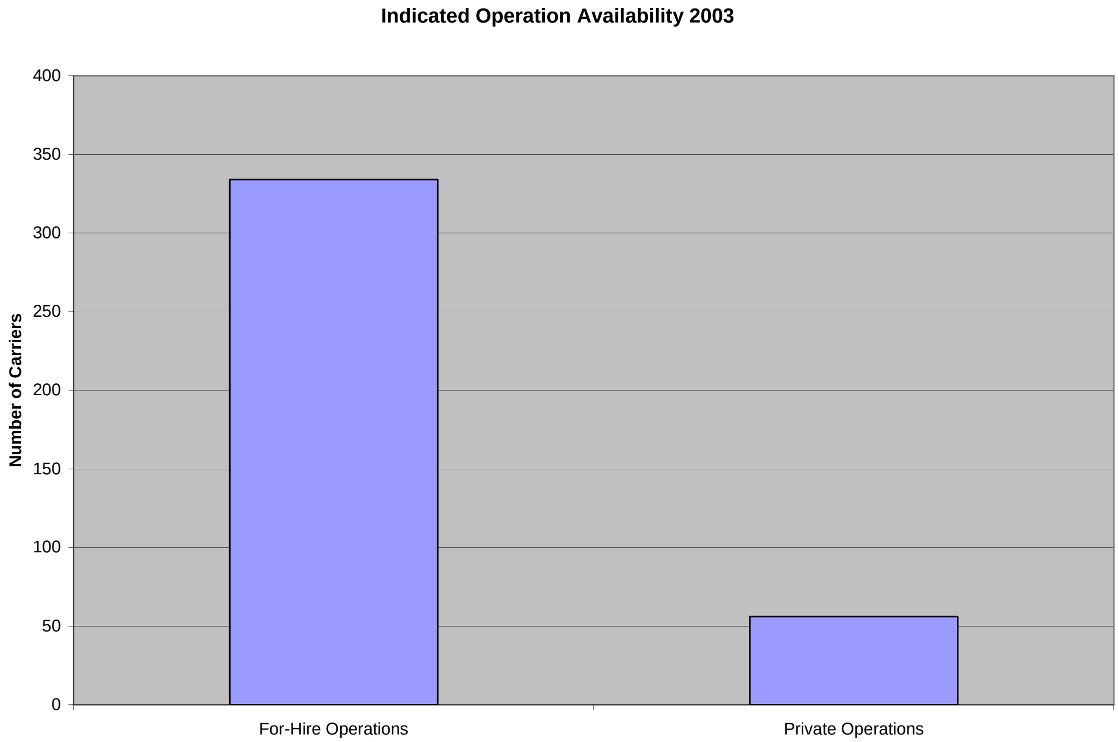

Figure 4 Operation Availability

Carriers were also asked to indicate what type of cargo they most typically haul. They could choose up to three types from a selection of 24 listed. The most common cargo selected (251) was grain/feed/hay (see Figure 5). This again is a result of the agriculturally oriented economy in the state. The second most common cargo was general freight (184), which can include many industries and types of goods. Most retail goods would fall in this category. Bulk (131), machinery (114), and building materials (106) cargoes were the next most common and again may be accounted for by the agricultural industry in the state. However, goods in these categories are also used by the construction industry which can play a large part in the motor carrier activity in the state as well.

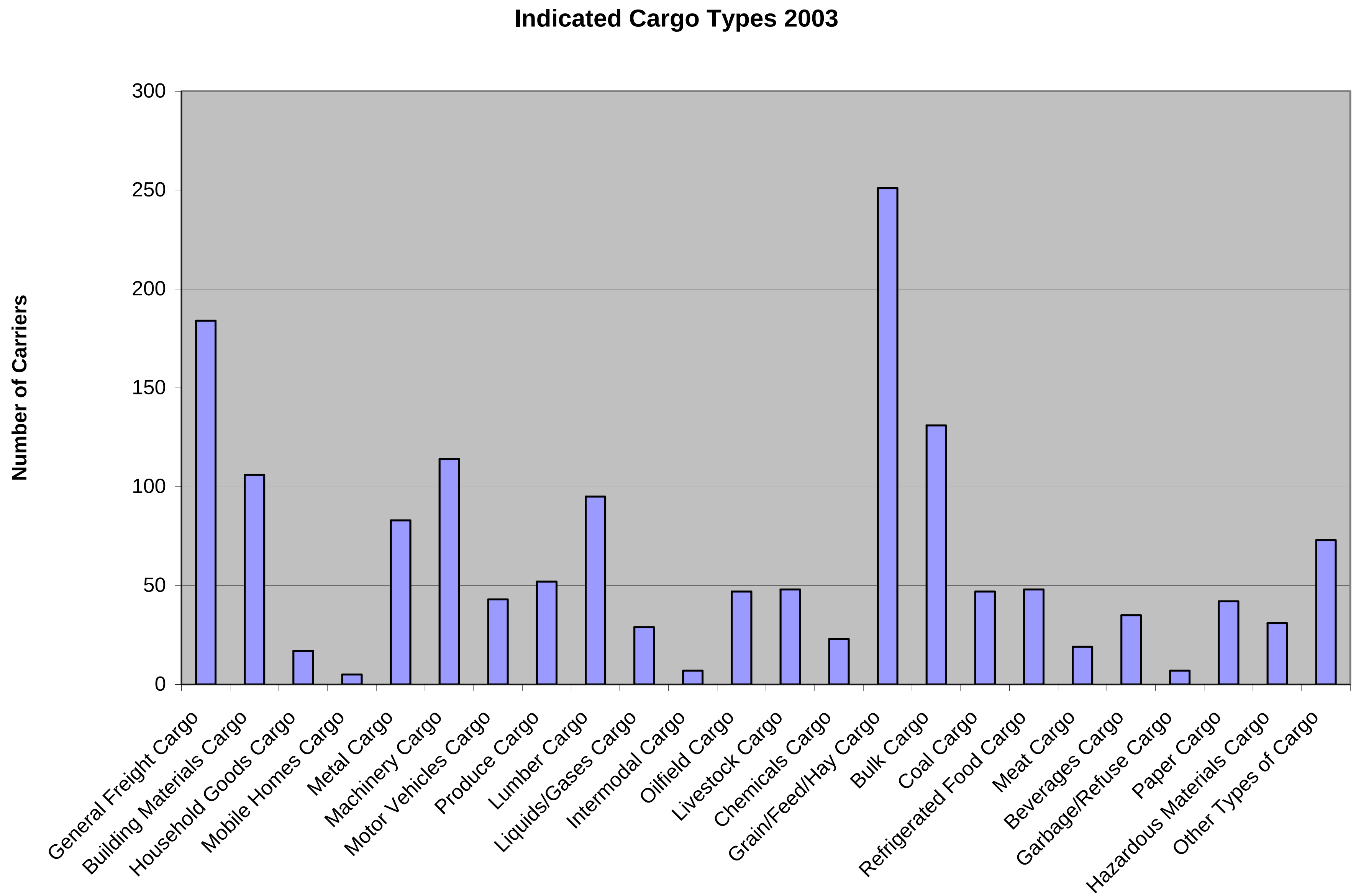

Figure 5 Cargo Types

4. Comparisons

Data for this comparison comes from the North Dakota Motor Carrier Directory. The directory is an incomplete listing of motor carriers in the state. Carriers get into the directory by returning a survey with information about their company. Not all carriers participate in the directory and carriers may appear irregularly depending on whether or not they returned the survey in time, or at all.

Only the last three directories – 1998, 2000, and 2003 – will be compared. The data for previous directories is no longer available. These three directories have followed the same methodology and should be comparable, whereas the previous directories were compiled differently.

In each of the years, more than 2,000 surveys were sent out and more than 400 surveys were returned. The response rate ranged from nearly 21 percent to just under 18 percent (see **Table 2**).

Table 2 Total Carriers Listed in the Directories

Year	Total Carriers Listed	Total Surveys Sent	Response Rate
1998	426	2,037	20.9%
2000	415	2,233	18.6%
2003	444	2,480	17.9%

Table 3 shows the companies that appeared in all three directories being analyzed here. Out of the 444 companies listed in the 2003 directory, 85, or 19.1 percent, were also listed in the 2000 and 1998 directories.

Table 3 Companies Listed in 1998, 2000, and 2003 (85 Companies)

4 K's Transportation	Frey, Marvin E.	Minot Builders Supply Assn.
Abrahamson Trucking	Gader, Myron	Moen, Gary E. Trucking Inc.
Albers, Lamont L	Gappert, Roger Trucking	Mueller, Allen
Arnhalt Transport, Inc.	Gault Trucking	N&N Express
Backer Trucking	Gilbertson Trucking	Patterson, H.J.
Bang, John Construction Inc.	Golberg, Patrick G.	Peterson, Donald
Barker Trucking	H & H Trucking	Pro Transport & Leasing Inc.
Batesville Logistics Inc.	H & K Ltd.	Reamann Trucking
Belle, Lynn	Hagen, Terry	Roehl Transfer Inc.
Borstad Farms (Dean Borstad)	Heery Trucking	Rott, John
Bosch Trucking	Jobbers Warehouse Co. Inc.	S & S Transport
Braaten Trucking & Grain Co. Inc.	Johnson, Ron Trucking	Schatz, Timothy
Brown, Keith Trucking Inc.	Johnston, James V.	Schwan Enterprises
Bryant, Jack	Jurgens Trucking LLC	Scott's Express
Can Am Express Inc.	K & K Trucking	Skar Trucking Inc.
Cement Transport Ltd.	Karriers Inc.	Slaubaugh, Elvin Trucking
Circle G Express, Inc.	Killoran Trucking	Smokey's Mobile Home Transport
Classic Transport	Land Trucking Inc.	Stark, Dale K.
Concrete Pre-Mix Inc.	Landeis, Tom or Loretta	Staveteig Trucking Inc.
D&C Transport	Larson Potato Inc.	TMI Transport Corporation
D&M Trucking	Lebacken Trucking Co.	Tooz Construction Inc.
Dahlgren Express	Lillegard Inc.	Utke, Steven
Davis, Donald	Lindecker Feeds	Van Dam Trucking
Dehoff Trucking Inc.	Lund Oil Inc.	Voightman Trucking
Deplazes Trucking	Martwick Trucking	Walch Brothers, Inc.
Didier Farms	Mastel Trans.	Westby Trucking Inc.
Don's Service	Midwest Crane Service	Wiest Truckline Inc.
Erickson Trucking	Miller, E & W Trucking	Zaderaka Transport
Fettes Transportation Systems		

There were also a fair amount of companies listed in 1998 and in 2003 but not in 2000. Assuming that these companies merely missed being listed in 2000 and that they were continuously in business, an additional 47 companies can be said to have remained from 1998 to 2003 (see Table 4). This brings the total number of companies in business from 1998 to 2003 to 130. This means that out of the 444 carriers listed in 2003, 29.7 percent had been in business for the past five years.

Table 4 Carriers Appearing in Both 1998 and 2003, But Not in 2000 (47 Companies)

Abrasives, Inc.	Goldsmith Trucking	Northdale Oil, Inc.
Altendorf Trucking	Hannesson Trucking	Peterson Trucking
Amcon Distributing Co.	Hebron Brick Company	PJ Express
Anderson, Daryl Transport Inc.	Hurt Trucking	Prairie Wind Transport
Arrowhead Transport, Inc.	Interstate/Payco Seed Co.	Prellwitz Trucking
Britton Transport, Inc.	J & S Heavy Haul Corp.	R&E Trucking
C&S Farms	Jacobson Transport, Inc.	Rademacher Trucking, Inc.
Chizek, Linus	Johnson, Steve Trucking	Red River Supply, Inc.
Clouse Trucking	Kautzman, Troy	Ritterman, James Trucking
Coyotee Transport	Koble & Sons	Royal Farms Dairy Association
Degelman Industries, Inc.	KRS Transport LTD	Rustad's LLC
Dietz, Dave	LGT Enterprises	Schmidt Trucking
Ehlis, Randy Trucking	Lindecker Trucking	Schweiger Trucking
Fargo Tire Service	Mears Trucking (Rugby)	Star Transportation
Flying H Trucking LLC	Midwest Motor Express	Streich, Marvin Trucking
Gentzkow Trucking Service, Inc.	Nichols, Randal	

If 29.7 percent of companies remained in business between 1998 and 2003, it is implied that 70.3 percent did not remain in business during that time. A churn rate of 70 percent is extremely high. Recent discussions of the telecommunications industry have used the word "epidemic" with a churn rate of 30 percent. However, this churn rate reflects five years and not an annual number. It is also not a true measure of churn because businesses may have started up and then shut down between our surveys. These are not captured using this methodology.

There were also a fair number of companies listed in 2000 and in 2003 but not in 1998. This adds an additional 65 that had been in business prior to 2003 (see Table 5). So a total of 197 companies were in business prior to 2003. This means that out of the 444 carriers listed in 2003, 44.4 percent had been in business prior to 2003.

Table 5 Carriers Appearing in Both 2000 and 2003, But Not in 1998 (65 Companies)

Aaction Movers	J-Mar Enterprises, Inc.	Prairie Lines, Inc.
Alternative Wrecker Service	Johnston, DeWayne	Prairie Transport
Baker Boy Supply	Kinn Trucking, LLC	R & J Trucking
Berg Grain & Produce, Inc.	Klever Konnection	R K Trucking
Berlin Farmers Elevator	Koppinger Trucking, LLC	Rafteseth, Travis
Bjorland, Richard Trucking	Kouba, Jess	Resner, Philip R
Brand Trucking, Ltd.	Kroh Trucking	S & L Trucking, Inc.
Buskohl, David	Kunze Brothers Trucking, Inc.	S & W Ranch
Butler Machinery Co.	L M Trucking	Skaurud Transport
Custom Ag Service	Laeger Trucking	Stringer Trucking
Fairview Colony	Lafarge Dakota, Inc.	Sundvor, Robert
Farmers Elevator, Inc.	Larson Farms Trucking, Inc.	Thompson, James C
Ferrel Transport	Lorinser, Dane	Tri-B Oil
Fisher Sand and Gravel	Lund, Gene Trucking, Inc.	Valley Grain Service, Inc.
Frantsen, Ray	Maras, Roger Trucking, Inc.	Vern's Trucking
Farmers Union Oil of Southern Valley	Moen Trucking, Inc.	W W Wallwork, Inc. Truck Rental
Gingerich Trucking	Movers, Inc.	Wagner Trucking
High-Line Transport	Neshem, Ron	Waldie, T J Trucking, Inc.
Hudson, GD Trucking	Northern Plains Steel Co.	Walz Truck Repair, Inc.
Hunter Excavating	Parslow Trucking, Inc.	Williston Transfer and Storage
Interstate Auto Transport	Pepsi Cola Bottling of Fargo, Inc.	Wittmier Trucking
JBS Trucking	Pfarr, Jeffrey C	

The core group of trucking companies listed in both 2000 and 2003 accounted for approximately 25 percent of the total number of trucks and tractors accounted for in the directory. In 2000 these companies accounted for 849 of the 3,763 trucks and tractors (23 percent), and in 2003 these companies accounted for 986 of the 3,530 trucks and tractors (28 percent). This implies that the remaining three-fourths of the trucking capacity is supplied by companies that come and go in the industry, or at least are just starting out.

5. Implications of Churn

Churn, or the entry and exit of carriers in the trucking industry, has impacts not only on the employees and owners of the companies themselves, but also on the shippers they serve and the communities they live and work in. From a shipper's perspective, having trucking companies that have worked with you go out of business thus requiring you to search for new companies can be a distraction from the main purpose of your company. There is a cost in establishing a carrier as a resource for your company. As new companies come into the industry, and into your lineup, this cost is incurred over and over again. Then when carriers go out of business, the investment made in them is lost. Potentially, it could cost your company in terms of interruptions of service and therefore your own customer base.

With the increasing requirement of automation and technology, churn has an effect on the adaptation of technology. A start-up company may not have the capital available to invest in high-tech equipment that may be useful for only a portion of their business. Established companies however, may have had the time to establish a relationship with the shipper, understand their technological needs, have the capital available to invest in equipment, and enough "high-tech customers" to make the investment worthwhile. This would seem to give established carriers a competitive advantage, at least for working with "high-tech" shippers. However, it may also be the case that newer carriers are buying newer equipment, which may include new technology.

Table 6 Comparison of Directory Statistics 2000-2003

2000		2003		DESCRIPTOR
415		444		Number of Carriers Listed
2,952		2,918		Number of Tractors Listed
4,960		5,131		Number of Trailers Listed
811		673		Number of Trucks Listed
97	23%	95	21%	Number of Carriers Listed with Dry Vans
70	17%	71	16%	Number of Carriers Listed with Refrigerated Vans
227	55%	229	52%	Number of Carriers Listed with Hopper-Bottom Trailers
39	9%	50	11%	Number of Carriers Listed with Tankers
184	44%	191	43%	Number of Carriers Listed with Flatbed Trailers
7	2%	7	2%	Number of Carriers Listed with Household Goods Trailers
128	31%	127	29%	Number of Carriers Listed with Other Types of Trailers
131	32%	118	27%	Number of Carriers Listed Indicating Intrastate Operations
263	63%	287	65%	Number of Carriers Listed Indicating Regional Operations
210	51%	210	47%	Number of Carriers Listed Indicating Nationwide Operations
119	29%	111	25%	Number of Carriers Listed Indicating Canadian Operations
4	1%	1	0%	Number of Carriers Listed Indicating Mexican Operations
259	62%	282	64%	Number of Carriers Listed Indicating Truckload Operations
38	9%	37	8%	Number of Carriers Listed Indicating Less-Than-Truckload Operations
310	75%	336	76%	Number of Carriers Listed Indicating For-Hire Operations
65	16%	56	13%	Number of Carriers Listed Indicating Private Operations
147	35%	184	41%	Number of Carriers Listed Indicating General Freight Cargo
104	25%	106	24%	Number of Carriers Listed Indicating Building Materials Cargo
14	3%	17	4%	Number of Carriers Listed Indicating Household Goods Cargo
6	1%	5	1%	Number of Carriers Listed Indicating Mobile Homes Cargo
78	19%	83	19%	Number of Carriers Listed Indicating Metal Cargo
117	28%	114	26%	Number of Carriers Listed Indicating Machinery Cargo
23	5%	43	10%	Number of Carriers Listed Indicating Motor Vehicles Cargo
48	12%	52	12%	Number of Carriers Listed Indicating Produce Cargo
80	19%	95	21%	Number of Carriers Listed Indicating Lumber Cargo
18	4%	29	7%	Number of Carriers Listed Indicating Liquids/Gases Cargo
6	1%	7	2%	Number of Carriers Listed Indicating Intermodal Cargo
24	6%	47	11%	Number of Carriers Listed Indicating Oilfield Cargo
42	10%	48	11%	Number of Carriers Listed Indicating Livestock Cargo
14	3%	23	5%	Number of Carriers Listed Indicating Chemicals Cargo
235	57%	251	57%	Number of Carriers Listed Indicating Grain/Feed/Hay Cargo
137	33%	131	30%	Number of Carriers Listed Indicating Bulk Cargo
33	8%	47	11%	Number of Carriers Listed Indicating Coal Cargo
49	12%	48	11%	Number of Carriers Listed Indicating Refrigerated Food Cargo
20	5%	19	4%	Number of Carriers Listed Indicating Meat Cargo
24	6%	35	8%	Number of Carriers Listed Indicating Beverages Cargo
7	2%	7	2%	Number of Carriers Listed Indicating Garbage/Refuse Cargo
33	8%	42	9%	Number of Carriers Listed Indicating Paper Cargo
21	5%	31	7%	Number of Carriers Listed Indicating Hazardous Materials Cargo
79	19%	73	16%	Number of Carriers Listed Indicating Other Types of Cargo
26	6%	30	7%	Number of Carriers Listed Indicating Web Sites
124	30%	156	35%	Number of Carriers Listed Indicating E-Mail

6. Summary and Conclusions

It has been shown that the churn of companies in the North Dakota trucking industry is high – nearly 70 percent. This is high compared to other industries, but it is unknown whether it is high compared to other states' experiences.

Many of the characteristics of the North Dakota trucking industry reflect the agricultural nature of the state. Churn may not be as disruptive to the ag industry as it might be in other industries. It is possible that churn may have a negative effect on the competitiveness of trucking companies competing for business with high-tech shippers or receives, but it is not known how many trucking companies are doing business with those types of companies.

The stability and longevity of trucking companies in North Dakota warrants further investigation and tracking over time. Perhaps additional research would be warranted to investigate the demand for and investment in newer technologies both in trucking equipment and business systems. The crucial nature of moving goods into and out of the state requires that this industry remain healthy and competitive.

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