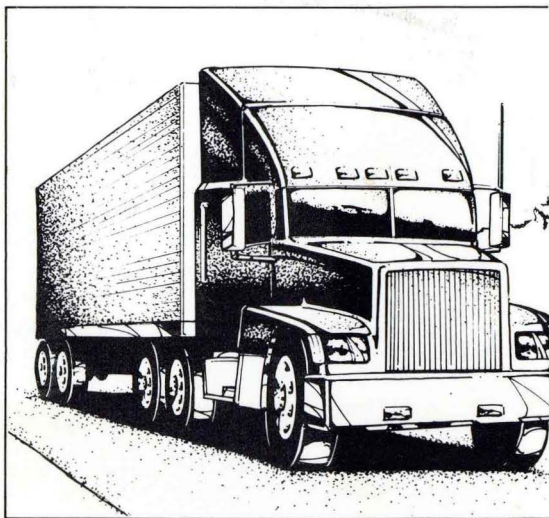


Trucking In Iowa



Iowa Motor Truck Association
The American Trucking Associations Foundation



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A Message from the President of the Iowa Motor Truck Association

The 1980s began with economic turmoil in Iowa but ended with a surging economy and strong growth in a diverse array of industries across the state. During this past decade, a more efficient trucking industry rose to meet the transportation needs of Iowa's businesses and consumers. Iowa's trucking industry is a full working partner in the state's economy and is dedicated to providing a safe, accessible and affordable service.

In the late 1980s, the trucking industry was the target of increased taxes. Not only is the trucking industry paying higher taxes, but an increased share of road user taxes as well. These higher taxes exceed the industry's fair share of the cost of our state's highways and represent a trend which threatens Iowa's future growth.

We cannot make access to efficient and reasonably priced freight transportation difficult for our revitalized agriculture and manufacturing industries or our new economic growth leaders—the insurance and service industries. Iowa must continue to be a competitive business location in order to capture its growth potential.

With the 1990s come new challenges for our state's economy and trucking industry. Iowa has the opportunity to export more and more of our agricultural and manufactured products, but at the same time, we are faced with rising costs and government revenue demands. We must work together to ensure future growth.

Recognition of the importance of truck transportation to Iowa's communities is a vital ingredient in maintaining and improving trucking services. This publication highlights how the trucking industry is essential to the state's economy.

R. Scott Weiser
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Trucking: Driving Iowa's Economy

Iowa's highway network and strong transportation industry play an integral role in economic growth. The links among economic growth, highways and the trucking industry will be shown in the following pages.

The trucking industry consists of more than the familiar over-the-road trucking companies and for-hire carriers. The industry also includes private carriers (those firms who move their own products) and truck owners conducting a wide variety of business activities throughout Iowa and the Midwestern states.

Economic expansion in the mid- to late-1980s was led by the growth of the service and trade industries, yet the economy is still reliant on the agriculture, food products, manufacturing and construction industries. All of these operations are heavily dependent on trucks for product movement. Freight movement is important to every sector of Iowa's economy, and trucks continue to provide cost-effective, door-to-door service for every Iowa consumer, factory and business.

"Trucking in Iowa" details the characteristics of the trucking industry: employment, trucks, freight movement by industry, economic interdependences, and taxes paid. By displaying these facts the importance of Iowa's trucking industry becomes clear.

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Iowa Trucking at a Glance

Employees

- Trucking employed 76,558 persons, or one out of eleven Iowa workers in 1987.
- The industry created 4,695 new jobs (7% increase) between 1985 and 1987.
- Trucking generated a 1987 payroll in excess of \$1.7 billion.

Trucks

- 100,900 trucks were engaged in commercial activities in 1987.
- 39% of Iowa's commercial trucks were engaged in agriculture, 16% in for-hire trucking, 16% in construction, 12% in trade activities, 10% in the service industries, and 7% in other activities.
- The number of trucks registered dropped by 15,400 — a 13% decrease — between 1982 and 1987.

Freight Movement

- Trucks transported 72.9 million tons of manufactured freight into and out of Iowa locations in 1987.
- Iowa depends on trucks for freight movement — trucks transported 79% of Iowa's total inbound and outbound manufactured freight in 1987.
- Total manufactured freight moved by trucks has increased, from 59.3 million tons in 1982 to 72.9 million tons in 1987 — a 23% increase.

Key to Economic Growth

- Trucks move the products of Iowa's "truck-dependent" agriculture, manufacturing, construction and wholesale trade industries.
- These "truck-dependent" industries encompassed more than 17,110 businesses and employed more than 311,430 people, or 36% of Iowa's workers, in 1987. Manufacturing alone employed 23% of the state's workforce.

Highways and Taxes

- Trucks paid \$210.3 million in 1988, or \$4.04 million weekly in state and federal highway user taxes; of the total taxes paid, \$132.9 million went to the State of Iowa.
- Trucks paid 33.6% of total state and federal highway taxes collected while representing only 6.7% of all vehicles registered.
- A five-axle tractor semitrailer pays \$9,703 per year in state and federal highway user taxes — 30 times greater than a passenger car; of the \$9,703 paid, \$4,863 goes to the State of Iowa.

Employees

Trucking Employees

Iowa's trucking industry employed 76,558 people; one out of eleven Iowa workers in 1987. These individuals work for private and for-hire carriers and include a wide variety of occupations and activities.

The Iowa for-hire carriers employ a total of 19,202 workers. The remaining 57,356 workers work for private carriers engaged in trucking activities for manufacturing, wholesale and retail trade firms.

Between 1985 and 1987, Iowa's trucking industry hired an additional 4,695 people. This increase represents a 6.5% annual growth rate, which outpaced the state's total employment growth of 5.3%.

Trucking Wages

Table 1
Iowa Average Annual Wages, 1987

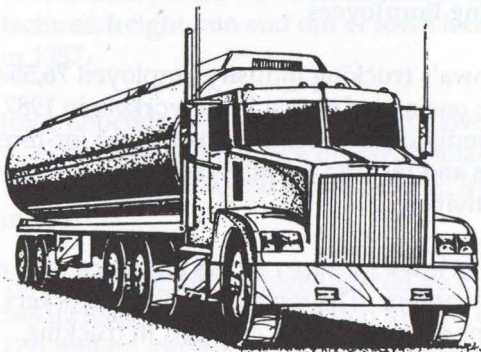
Industry	Annual Wages
Manufacturing	\$24,410
Trucking and Transportation	\$22,782
Construction	\$22,351
Wholesale Trade	\$20,142
All Private	\$16,838

Source: U.S. Department of Commerce, County Business Patterns, Iowa, 1987.

Iowa's trucking industry paid average wages of \$22,782 in 1987. These wages were 35% greater than the average for all industries, were comparable to those in manufacturing, and were higher than construction and wholesale trade.

Trucking Payroll

The trucking industry in Iowa generated an annual payroll in 1987 in excess of \$1.7 billion.

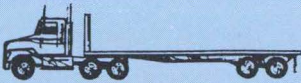


Trucks

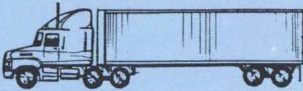
Truck Type

The Iowa trucking industry operates many different types of trucks to meet the needs of businesses and consumers. The most common types of commercial trucks are flatbeds, vans and grain bodies. Commercial trucks registered by type numbered 100,900 in 1987; this group of vehicles, which is essential to freight movement, excludes pick-ups/minivans (444,800 vehicles) and panels/utilities (133,900 vehicles).

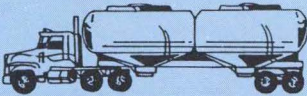
Figure 1
Iowa Trucks by Body Type, 1987
(Excludes Pick-ups, Minivans, Panels and Utilities)



Flatbed
34%



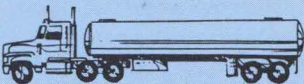
Van
17%



Grain Body
16%



Dump
8%



Tank
7%



Livestock
3%

Source: U.S. Department of Commerce,
1987 Iowa Census of Transportation.

Flatbeds include both the basic platform, used mainly in agriculture, construction and manufacturing, and the lowboy, used primarily in the construction industry. Vans, both single-unit and combination, include both refrigerated and nonrefrigerated boxes, which are used in many industries.

Between 1982 and 1987, the number of commercial trucks registered by type in Iowa decreased by 15,400, or -13.2%. The increases, and decreases, varied greatly depending upon truck type and business use, yet the aggregate decline illustrates the industry-wide productivity gains during the 1980s.

Table 2
Iowa Trucks by Body Type,
1982, 1987 and Percent Change 1982-1987
(Excludes Pick-ups, Minivans, Panels and Utilities)

Body Type	Number 1982	Number 1987	Percent Change
Flatbed	50,100	34,700	(-30.7%)
Van	16,500	16,700	1.2%
Grain Body	13,400	16,100	20.1%
Dump	7,800	8,400	7.7%
Tank	8,000	6,800	(-15.0%)
Multistop	2,000	4,500	125.0%
Livestock Truck	8,700	3,400	(-60.9%)
Wrecker	1,600	1,900	18.8%
Concrete Mixer	1,400	1,400	0.0%
Garbage Hauler	1,000	800	(-20.0%)
Auto Transport	200	500	150.0%
Winch or Crane	600	400	(-33.3%)
Other	5,000	5,300	6.0%
Total	116,300*	100,900*	(-13.2%)

* Tables are not all equal due to rounding.

Source: U.S. Department of Commerce,
1982 and 1987 Iowa Census of Transportation.

Between 1982 and 1987, the total number of flatbeds decreased. Within the flatbed category, though, lowboys actually increased (+600 trucks), while platforms, which account for 91% of all flatbeds, had a large decrease (-16,000 trucks). Most lowboys are used in construction and most platforms are used in agriculture.

The number of trucks related to the construction industry increased: lowboys (+600) and dumps (+600). For trucks related to agriculture, platforms (-16,000) and livestock trucks (-5,300) both decreased, while grain bodies (+2,700) increased.

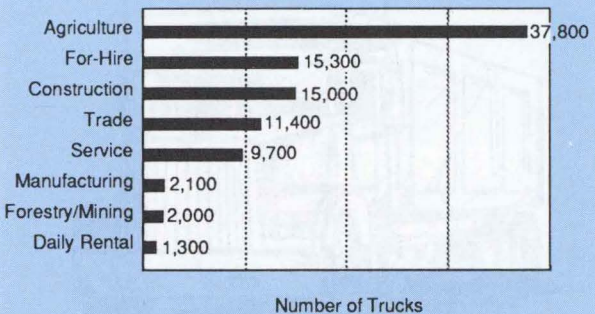
The service and utilities industry, reflecting the strong business and employment gains made during the 1980s, had a increase of 5,300 trucks (+121%).

The number of vans, which are used in many industries, increased slightly (+200). Within the van category, though, the number of basic enclosed vans, of which 48% are used in for-hire carriage, decreased by 2,100, or -21.4%.

Truck Use

By far the greatest use of Iowa's trucks is in the agricultural sector — 39% of all commercial trucks. For-hire carriage accounts for the second largest use of commercial trucks (16%), followed by construction (16%), wholesale and retail trade (12%) and service (10%).

Figure 2
Iowa Trucks by Major Use, 1987
(Excludes Pick-ups, Minivans, Panels and Utilities)



Source: U.S. Department of Commerce,
1987 Iowa Census of Transportation.

Freight Movement in Iowa

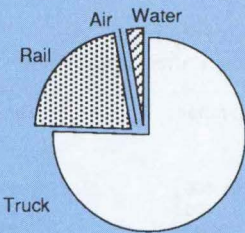
The 72.9 million tons of freight moved to and from Iowa by truck in 1987 represent 78.5% of the total manufactured freight moved by all modes of transportation.

Trucks move nearly 76% of the total outbound tons of manufactured goods from Iowa locations each year. Close to 38.7 million tons of freight are moved by truckload, less than truckload, and private carriers. Trucks complement all modes of transportation and move the finished products of Iowa's manufacturers.

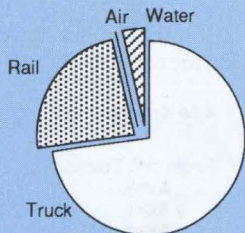
Trucks also move the lion's share of inbound manufactured freight transported to Iowa locations; the 34.3 million tons hauled by trucks represent 82% of total inbound tons.

Figure 4
Iowa Manufactured Freight Movement by Mode, 1987

Outbound Freight by Mode



Inbound Freight by Mode



Source: Reebie Associates, Transearch Database.

Trucks move most of the total manufactured freight (more than four times the amount of any other transportation mode) because of superior door-to-door and cost-competitive service provided by motor carriers. The selection of motor freight service over other modes of transportation is made every week by thousands of Iowa shippers and receivers.

Table 5
Iowa Manufactured Freight Transported
by Carrier Type, 1987

Carrier Type	Outbound Tons	Inbound Tons
Private For-Hire	22,289,772	20,539,601
Truckload	15,532,319	12,804,354
Less Than Truckload	842,476	943,467
Total Truck	38,664,567	34,287,422

Source: Reebie Associates, Transearch Database.

The 72.9 million tons of freight moved by trucks in 1987 is a significant increase over the 59.3 million tons moved in 1982. Manufactured freight tonnage moved by truck grew 23.1% between 1982 and 1987.

For-hire trucking alone experienced a large increase in freight movement. Total manufactured freight moved by for-hire trucks grew from 18.0 million tons in 1982 to 30.1 million tons in 1987, an increase of 67%.

Productivity Gains of the 1980's

The change in structure of Iowa's trucking industry between 1982 and 1987 is an indication of the gains made in freight movement during that same period. The coinciding 23% increase in freight movement and 13% decrease in commercial trucks implies strong productivity growth.

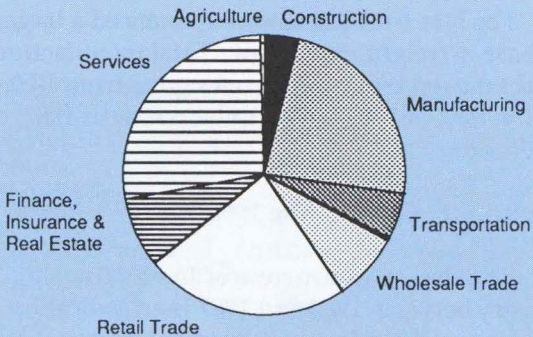
This productivity growth was achieved, in large part, through the increased use of twin 28 foot trailers, plus 48 and 53 foot semitrailer combinations. The gains made in freight movement have reduced the number of trucks needed to move Iowa's goods and services. This reduction means less congestion, fewer emissions and a decrease in truck-related accidents.

Trucking: Key to Iowa's Economic Growth

Truck-Dependent Industries

Thirty-six percent of Iowa's resident workers are employed in the truck-dependent agriculture, manufacturing, construction and wholesale trade industries. Trucking, in general, facilitates the activities of all industrial sectors including Iowa's retail trade, financial and business service industries.

Figure 5
Iowa's Employees by Industrial Sector, 1987



Source: U.S. Department of Commerce, County Business Patterns, Iowa, 1987.

Iowa Manufacturing

Manufacturing is the largest source of personal income for Iowans, followed by services and wholesale/retail trade. Nearly one-quarter (23.3%) of all Iowa workers are employed in the manufacturing sector.

The three largest manufacturing industries in Iowa, machinery, food products and electronic equipment, account for 50% of total manufacturing employment. The printing and publishing and

fabricated metal products industries also employ a significant number of workers.

Other important manufacturing industries in Iowa are the rubber and plastics products, transportation equipment and primary metal industries.

Table 6
Major Manufacturing Industries in Iowa, 1987

Industry	Number of Employees
Total Manufacturing	204,099
Machinery	40,264
Food Products	39,257
Electric & Electronic Equipment	22,559
Printing and Publishing	19,715
Fabricated Metal Products	17,457
Plastics and Rubber Products	10,082
Transportation Equipment	8,694
Primary Metal Industries	6,815

Source: U.S. Department of Commerce,
County Business Patterns, Iowa, 1987.

Iowa's Large Manufacturers Rely on Trucks

The Iowa manufacturing firms with the largest number of employees rely on trucks to bring their raw materials and to haul their product to market. Trucking's record of delivering Iowa's valuable manufactured products efficiently and with extremely low damage claims remains unequalled.

The largest Iowa manufacturers generally rely on common carriers to haul their goods to marketplace, in addition to shipping much of their interplant freight in their own trucks.

Table 7
Iowa's Large Manufacturing Employers, 1989

Firm/Location(s)	Product	Employees
John Deere Davenport, Des Moines	Farm, Construction, and Mining Machinery	15,200
Rockwell International Coralville, Fairfield, Cedar Rapids,	Communications, Motor Vehicle Parts, Printing Presses	10,500
Iowa Beef Processors Columbus Junction	Meat Packing	6,600
Oscar Mayer Foods Davenport, W. Liberty	Meat Packing	3,300
Aluminum Co. of America (ALCOA) Davenport	Aluminum Sheet and Plate	3,000
Meredith Corporation Des Moines, Clarion	Publishing	2,626
Amana Refrigeration Amana	Refrigerators, Freezers, Heating	2,450
Rolscreen Co. Carroll, Pella	Millwork, Metal Doors, Sash and Trim	1,900
Winnebago Industries Lorimor, Hampton	Trailers and Campers, Plastic, Aluminum	1,866
Pioneer Hi-Bred Des Moines, Durant	Seed Corn, Flour, Grain Mill Products	1,706

Source: Iowa Department of Economic Development.

The state's machine companies and metal fabricators ship most of their products via truck, as do the transportation equipment and plastics firms. The food processing companies and food distributors (supermarkets and wholesalers) rely nearly exclusively on trucks for efficient and timely delivery of their products.

The state's modern, high-tech manufacturing facilities require trucks for timely delivery for just-in-time inventory operations. Trucks also move time-sensitive and perishable products safely and efficiently. Further, trucks complement all modes of transportation, servicing railheads, airports, ports and distribution facilities of all kinds.

Iowa Agriculture

Iowa ranks third in the nation in total farm receipts and total livestock and livestock products. While total commodity production and cash receipts have fluctuated from year to year, the trend in Iowa during the 1980s has been upward.

Iowa's two primary crops are corn and soybeans. The two primary livestock are hogs and cattle. Livestock products account for 57% of total cash receipts and crops account for 43%.

Trucks play a crucial role in delivering goods and supplies to the 105,000 farms in Iowa. Trucks also play a major role in delivering the farms' agricultural products to market.

While rail and barge are also used for intersate shipments of agriculture products, trucks are required to haul from fields to grain elevators, railheads and river terminals. According to the University of Illinois, truckers move 87% of intrastate shipments of soybeans, and 74% of corn.

Table 8
Iowa Farm Receipts, By Commodity, 1988-1989
(Cash Receipts in Thousands)

Commodity	1988	1989
Crops		
Corn	1,586,347	1,916,067
Soybeans	2,016,022	1,779,658
Hay	77,236	93,727
Oats	31,181	31,180
Other Crops	76,534	90,206
Total Crops	3,787,320	3,910,838
Livestock Products		
Hogs	2,407,457	2,420,996
Cattle	1,922,641	2,026,641
Dairy Products	461,380	525,532
Eggs	64,655	95,052
Other Livestock	131,643	128,751
Total Livestock	4,987,776	5,196,972
All Commodities	8,775,096	9,107,810

Source: Iowa Agricultural Statistics, 1990,
Iowa Department of Agriculture and Land Stewardship.

Iowa River Terminals

The two rivers bordering Iowa provide the state with 491 miles of commercial waterways. There are 22 docking locations on the two rivers — 18 on the Mississippi and four on the Missouri.

Trucks transport most of the inbound and outbound river freight, which consists primarily of agricultural, manufactured and mining products. The use of trucking in this intermodal freight movement is essential to the timely and efficient delivery of Iowa's goods and products.

Table 9
Distribution Percent, By Mode, Of Shipping Tonnage
To and From The Rivers, 1988

Commodity	Tons	Truck	Rail	Produced or Consumed at Terminal
Mississippi River				
Grain	8,513,271	66%	34%	0%
Coal	4,552,741	22%	19%	59%
Petroleum	633,320	100%	0%	0%
Other	3,419,721	67%	12%	21%
Total	17,119,053	56%	24%	20%
Missouri River				
Total	430,020	77%	3%	20%

Source: 1989 Barge Terminal Survey,
Iowa Department of Transportation.

Trucks: Delivering Consumer Products

Consumer products are principally transported by trucks - if not all the way from the factory, at least from the local distribution centers, ports or railheads to the retail or wholesale facilities. This supports the trucking industry's slogan: "IF YOU GOT IT - A TRUCK BROUGHT IT."

Trucking serves all of Iowa's communities, many of which depend entirely on trucks for delivery of goods and services.

Highways and Taxes

Highways

Iowa's highway system is composed of interstate, primary and secondary routes. Iowa highways allow freight movement for all businesses and consumers and are the routes to markets across the entire United States.

Major roads such as I-80, I-35, I-29, U.S. 30 and U.S. 61 allow for the motor freight of goods and services to and from Iowa's factories, farms, hospitals, hotels and businesses. For nearly all of these operations, trucking is the only direct transportation mode available.

Iowa is an ideal central distribution point. Less than a day away are Chicago, Minneapolis/St. Paul, St. Louis, Kansas City, Milwaukee and Omaha. A tractor-trailer can reach the farthest point in America in only three days.

Iowa is dedicated towards maintaining and improving its highway system. In 1989, the Iowa Legislature addressed the distribution of the state's Road Use Tax Fund (RUTF). As a result, the percentage of the RUTF apportioned to the state's primary system was increased to 47.5%.

Also in 1989, construction began on three major bridge projects that used both state and federal funding. Construction has begun on the U.S. 61 Phase 2 (Dubuque) and U.S. 34 (Burlington) Mississippi River bridges, as well as on the U.S. 30 Missouri River Bridge at Blair, Nebraska. Construction of a major highway improvement on U.S. 61 through Dubuque, which will connect to the new bridge, was also begun.

These highways and bridges are constructed and maintained with state and federal funds collected from all highway users. Trucks pay a

large share of highway money in the form of fuel taxes, registration fees, carrier fees and excise taxes.

Highway User Taxes

Motor trucks pay taxes to state and federal governments in many forms. The federal government collects \$4,840 a year in road user taxes from a five-axle tractor semitrailer in the form of fuel, excise and truck use taxes.

The State of Iowa collects an additional \$4,863 from the same type of vehicle in the form of registration fees, fuel taxes and carrier fees.

A typical five-axle tractor semitrailer pays highway user taxes that are 30 times greater than those paid by a medium-sized passenger car.

Federal Highway User Taxes

Since 1982, highway user taxes paid to the federal government for a five-axle tractor semitrailer have increased by 177%.

The Surface Transportation Assistance Act (STAA) of 1982 increased the Federal Highway Trust Fund taxes to be paid by Iowa's truck owners by over twofold.

The STAA increased the fees paid on a typical 80,000 pound five-axle tractor semitrailer from \$1,748 in 1983, to \$4,138 in 1987. This represents just the share paid to the Federal Highway Trust Fund.

In addition, the Omnibus Budget Reconciliation Act of 1990 increased federal fuel taxes again — by 5.0 cents per gallon on December 1, 1990. This amounts to an average increase of \$701.75 per year for a five-axle tractor semitrailer. Only one-half of this goes to the Highway Trust Fund, while the remainder goes to deficit reduction.

Iowa's State Highway User Taxes

Total state highway user taxes for a five-axle tractor semitrailer have increased by 13% since 1987, rising from \$4,311 in 1987 to \$4,863 in 1990.

The portion of the state tax bill that increased the most was the state's fuel tax. In 1988, the General Assembly authorized an incremental increase in the state's fuel tax from 18.5 cents per gallon to 22.5 cents per gallon (a 21.6% jump) effective January 1, 1989. This amounted to an increase of \$561.40 for a five-axle tractor semitrailer.

Table 10
Iowa State and Federal Highway User Taxes
Paid by Medium-sized Passenger Car and
Five-axle Tractor Semitrailer, 1990

	Medium-Sized Passenger Car	Five-Axle Tractor Semitrailer
State Taxes and Fees		
Registration Fees	\$113.00	\$1,705.00
Motor Fuel Tax*	\$130.73	\$3,157.88
Total Iowa Highway User Tax	\$243.73	\$4,862.88
Federal Taxes and Fees		
Excise Tax - Trucks & Trailers	\$0.00	\$1,319.44
Excise Tax - Tires	\$0.00	\$163.67
Truck Use Tax	\$0.00	\$550.00
Motor Fuel Tax**	\$81.34	\$2,807.00
Total Federal Highway User Tax	\$81.34	\$4,840.11
Total Iowa and Federal Highway User Tax	\$325.07	\$9,702.99

* Motor Fuel Tax is calculated assuming annual fuel consumption of 581 gallons for a passenger car and 14,035 gallons for a five-axle tractor semitrailer.

** Includes \$.05 increase mandated by the Omnibus Budget Reconciliation Act of 1990.

Source: American Trucking Associations;
U.S. Department of Transportation,
Road User and Property Taxes.

Trucks account for only 6.7% of all vehicles registered in Iowa, yet pay 33.6% of total state and federal highway user taxes. Trucks pay 28% of the state taxes and 50% of the federal taxes.

Table 11
Iowa State and Federal Highway User Taxes
Paid by All Vehicles and Large Trucks, 1988
(Taxes in Thousands of Dollars)

	All Vehicles	Large Trucks*	Truck Percent
Number of Vehicles Registered	\$2,720,948	\$181,290	6.7%
Iowa Taxes and Fees			
Registration Fees	\$159,166	\$34,339	21.9%
Other Taxes/Fees	\$20,091	\$1,346	6.7%
Truck Use Tax	\$725	\$725	100.0%
Motor Fuel Tax	\$290,321	\$96,461	33.2%
Total Iowa Highway User Tax	\$470,303	\$132,871	28.3%
Federal Taxes and Fees			
Excise Tax - Trucks & Trailers	\$21,225	\$21,225	100.0%
Excise Tax - Tires	\$5,552	\$5,552	100.0%
Truck Use Tax	\$9,660	\$9,660	100.0%
Motor Fuel Tax	\$118,781	\$41,037	34.5%
Total Federal Highway User Tax	\$155,218	\$77,474	49.9%
Total Iowa and Federal Highway User Tax	\$625,521	\$210,345	33.6%

*Trucks exclude pick-ups, minivans, panels and utilities and weigh strictly more than 10,000 pounds; this definition differs from U.S. Department of Commerce, Iowa Census of Transportation.

Source: American Trucking Associations; U.S. Department of Transportation, Highway Statistics, 1988.

Iowa's trucks, only 6.7% of all vehicles registered, pay 33.6% of total state and federal taxes.

"Trucking in Iowa" was prepared by the American Trucking Associations Foundation in conjunction with the Iowa Motor Truck Association (IMTA). For further information or to express comments, please contact:

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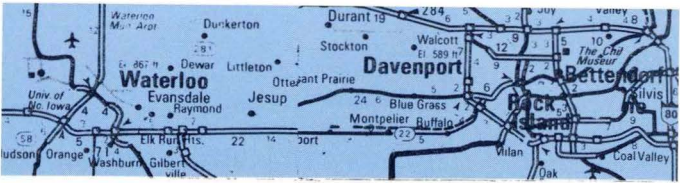
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