

# Shipments of Grain by Rail in Iowa

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This summary of grain shipments by rail in Iowa is drawn from *State Grain Rail Statistical Summary*,<sup>1</sup> a report that describes the grain and oilseed shipped by rail in the United States from 2006 to 2010. The full report collects information on rail shipments from each State and to each State and examines some of the factors that influence the amount of grain grown and used. It examines rail shipments, rail receipts, grain and oilseed production, animal and poultry production, grain and oilseed exports, and grain and oilseed rail rates per ton-mile to explain the variations between States in shipments of these commodities.

Iowa ranks first among the grain and oilseed producing States, with a 2006–2010 average yearly production of 2.7 billion bushels (bbu).

From 2006 to 2010, corn made up 82 percent of Iowa crops and soybeans made up the remaining 18 percent.

Nationally, Iowa is ranked second in animal and poultry production, averaging 37.5 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

Railroad originations of grain and oilseeds averaged a market share of 30.1 percent during the crop marketing years of 2001 to 2004, which decreased to an average of 15.9 percent during 2007 to 2010.

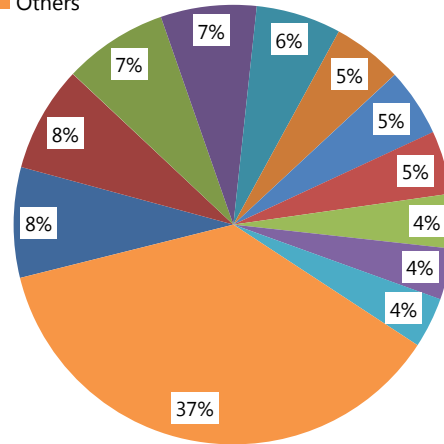
During the period 2006 to 2010, Iowa shipped 54.4 million tons of corn by rail, down 26 percent from 73.5 million tons from 1996 to 2000. (fig. 1)

1 Available at <http://dx.doi.org/10.9752/TS066.06-2013>

2 A standard unit used to compare the feed needs of different livestock and poultry.

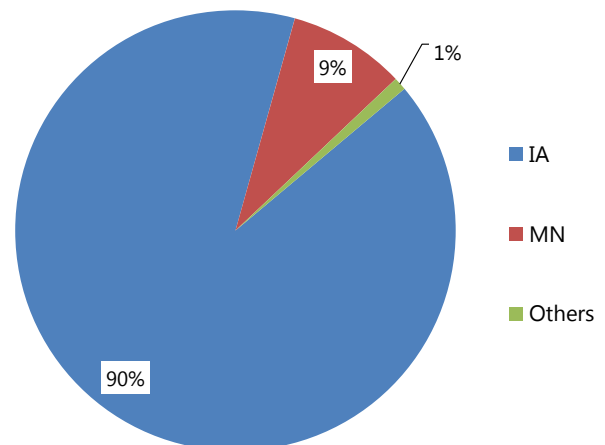
Figure 1. Business Economic Areas Receiving Iowa Corn by Rail, 2006–2010

- Davenport-Moline-Rock Island, IA-IL
- Houston-Galveston-Brazoria, TX
- Fresno, CA
- Mexico
- Los Angeles-Riverside-Orange County, CA-AZ
- Cedar Rapids, IA
- San Francisco-Oakland-San Jose, CA
- Little Rock-North Little Rock, AR
- Phoenix-Mesa, AZ-NM
- Amarillo, TX-NM
- New Orleans, LA-MS
- Others



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 2. Sources of Iowa Rail Corn Receipts, 2006–2010



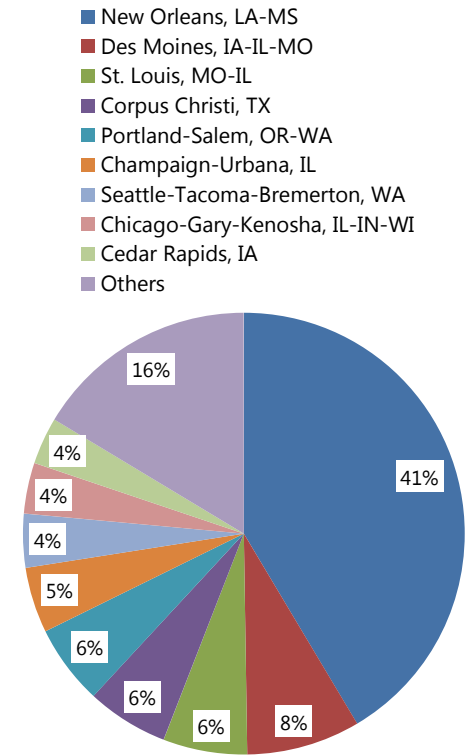
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Iowa received a total of 8.3 million tons of corn by rail during the 2006–2010 marketing years, down 70 percent from 27.4 million tons during the 1996–2000 marketing years. (fig. 2)

From 2006 to 2010, Iowa shipped 8.5 million tons of soybeans by rail, down 33.2 percent from 12.8 million tons shipped in the period 1996 to 2000. (fig. 3)

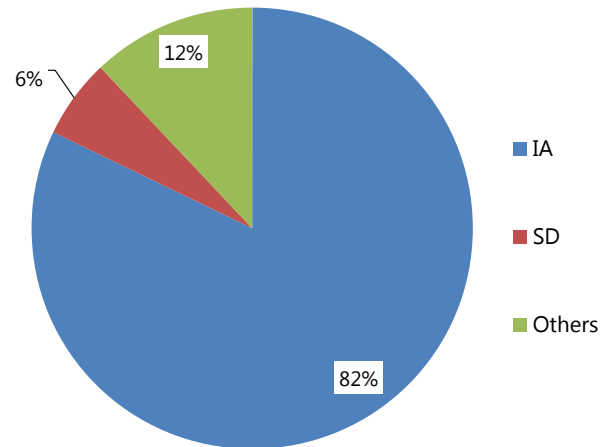
Iowa received a total of 1.3 million tons of soybeans by rail during the 2006–2010 marketing years, down 54.3 percent from 2.9 million tons during the 1996–2000 marketing years. (fig. 4)

**Figure 3. Business Economic Areas Receiving Iowa Soybeans by Rail, 2006–2010**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 4. Sources of Iowa Rail Soybean Receipts, 2006–2010**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

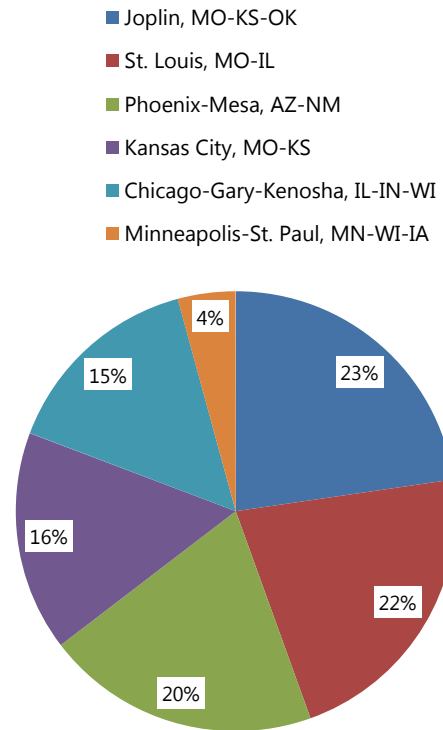
In the years 2006–2010, 96,000 tons of wheat were shipped by rail from Iowa, a 69.3-percent decrease from 313,000 tons from 1996 to 2000. (fig. 5)

Iowa received a total of 2.3 million tons of wheat by rail during the 2006–2010 marketing years, up 23.5 percent from 1.9 million tons during the 1996–2000 marketing years. (fig. 6)

Two percent of the grain car shipments originating in Iowa from 2006 to 2010 were 1–5 cars in size, 24 percent were 6–49 cars, 12 percent were 50–74 cars, and the remaining 62 percent of shipments were 75 cars or greater. (fig. 7)

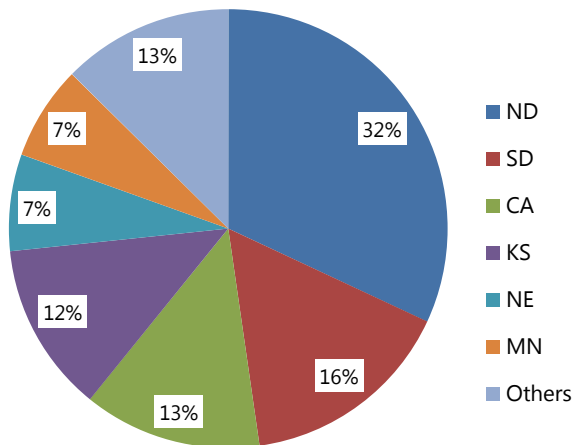
Average tariff rail rates for shipments originating in Iowa were 3.2 cents per ton-mile from 2006 to 2010. Rates ranged from 2.46 cents per ton-mile in 2000 to 5.66 cents in 1997. Rates increased 37 percent from 2005 to 2010. (fig. 8)

**Figure 5. Business Economic Areas Receiving Iowa Wheat by Rail, 2006–2010**



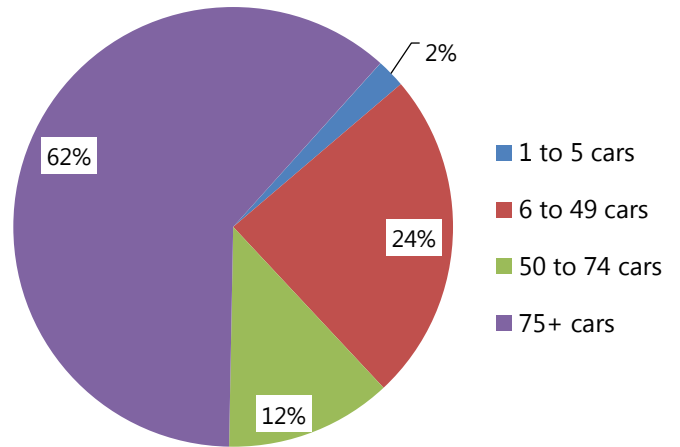
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 6. Sources of Iowa Rail Wheat Receipts, 2006–2010**



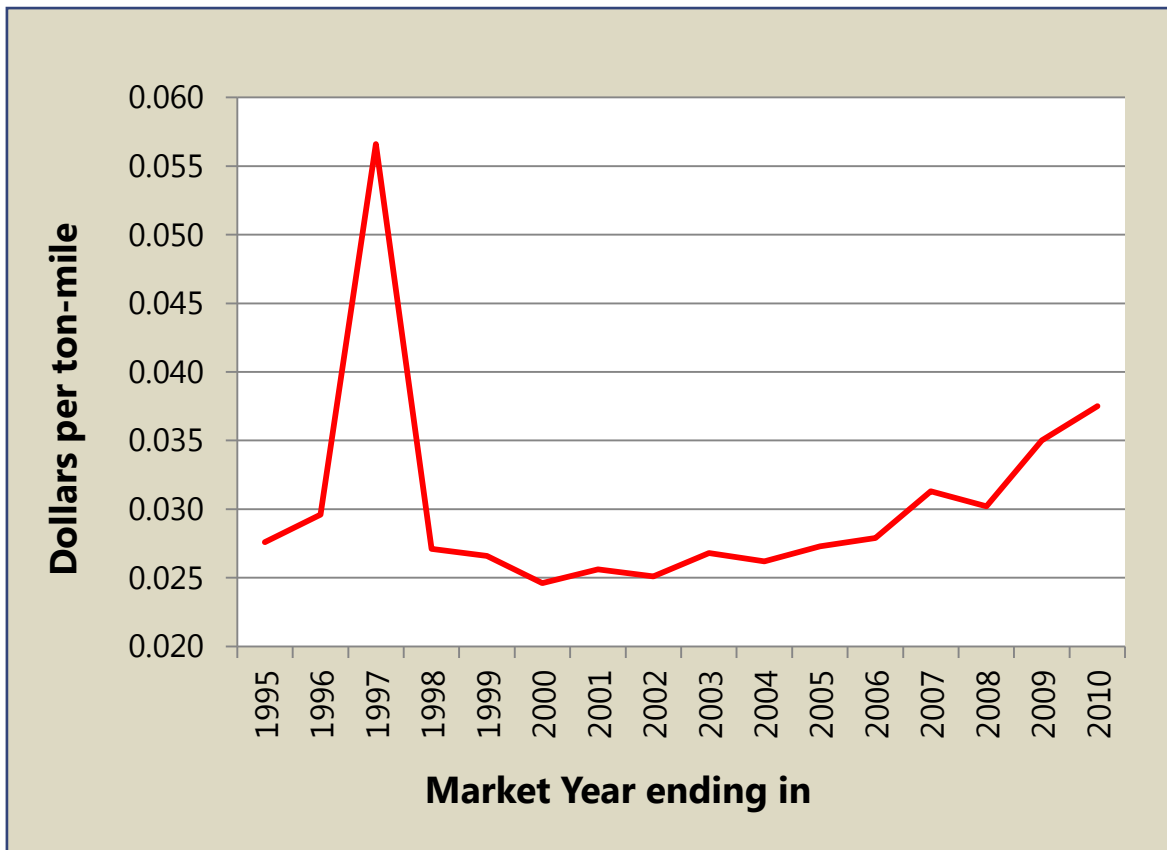
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 7. Iowa Grain Originations by Shipment Size**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 8. Average Iowa Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Table 1. Iowa Grain and Oilseed Production and Rail Shipments, 2006-2010

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
<b>Average Yearly Production</b>	2241.57 mbu†	478.15 mbu	1.13 mbu	2726.55 mbu	37,470,754
<b>Total Rail Receipts (tons)</b>	8,254,201	1,324,835	2,317,684	-	-
<b>Total Rail Shipments (tons)</b>	54,365,381	8,530,938	95,984	-	-

\* Grain Consuming Animal Units

† Million bushels

## Data and Methodology

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Data from the Surface Transportation Board's Confidential Waybill Samples over the period 1996-2010 were analyzed to measure grain and oilseed shipments by rail. The data were aggregated and sorted by a number of characteristics, the major categories being shipment origin, destination, and type of grain or oilseed. This information was then organized by both origin and destination State. The data were also sorted by shipment size for each State, showing the relative frequencies of grain and oilseed shipments of different sizes. Data having less than 30 observations are excluded, as are States having data for only 1 or 2 years of the 5-year period. Despite these precautions, States with relatively low volumes are more subject to year-to-year variation than are States with higher volumes because of the number of available observations used to calculate totals. This is a result of the sampling techniques used in the Waybill Samples. Thus, higher volumes are less likely to suffer from sampling limitations and be more representative of actual rail movements for any given year than are lower volumes.

GCAUs were calculated for each State using information on animal populations and the corresponding levels of feed necessary to maintain the populations. These calculations included meat and poultry for consumption and production purposes. Cows, sheep, turkeys, hogs, and chickens were included.

The export inspection numbers in this report were taken from USDA Grain Inspection, Packers and Stockyards Administration grain and oilseed export inspections at U.S. ports exporting grain and oilseeds in bulk. Grain and oilseed production levels by State were also calculated.

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