

Shipments of Grain by Rail in Oklahoma

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This summary of grain shipments by rail in Oklahoma is drawn from *State Grain Rail Statistical Summary*,¹ 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.

Oklahoma ranks 23rd among the grain and oilseed producing States, with a 2006–2010 average yearly production of 174.8 million bushels (mbu).

During the years 2006–2010, wheat comprised 62 percent of Oklahoma crops, corn 20 percent, sorghum 7 percent, soybeans 5 percent, cottonseed 4 percent, peanuts 2 percent, and rye 1 percent.

Nationally, Oklahoma is ranked 10th in animal and poultry production, averaging 15 million Grain Consuming Animal Units (GCAU)² from 2006 to 2010.

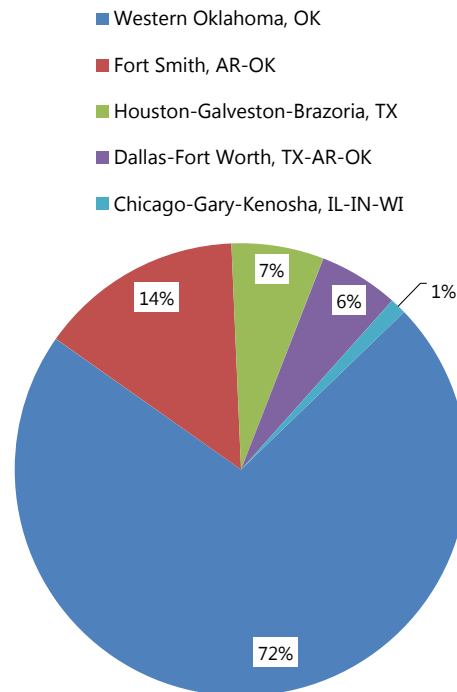
Railroad originations of grain and oilseeds had an average market share of 47.6 percent during the crop marketing years 2001–2004, which later increased to an average of 52.9 percent in the period 2007–2010.

During the period 2006–2010, Oklahoma shipped 69,000 tons of corn by rail, down 81.7 percent from 376,000 tons from 1996 to 2000. (fig. 1)

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

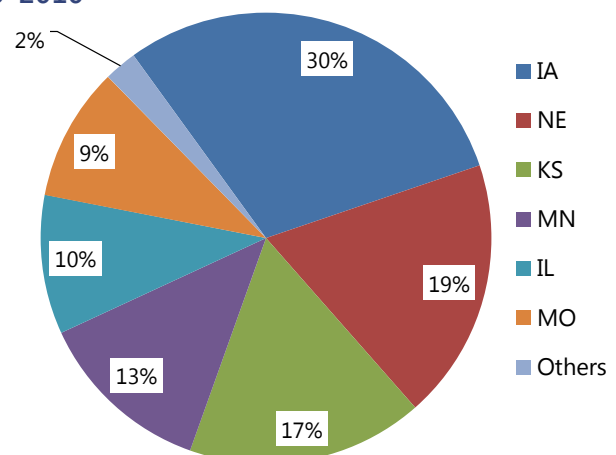
2 A standard unit used to compare feed needs of different livestock and poultry.

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



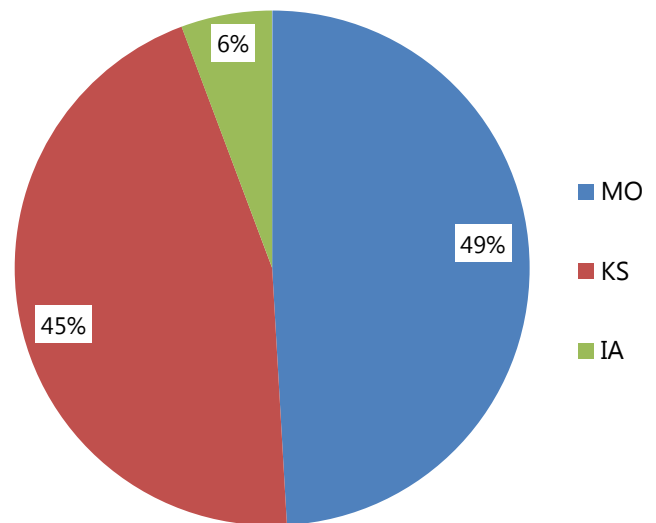
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Oklahoma received a total of 9.3 million tons of corn by rail during the 2006–2010 marketing years, up 47.5 percent from 6.3 million tons during the 1996–2000 marketing years. (fig. 2)

Oklahoma received a total of 125,000 tons of soybeans by rail during the 2006–2010 marketing years. (fig. 3)

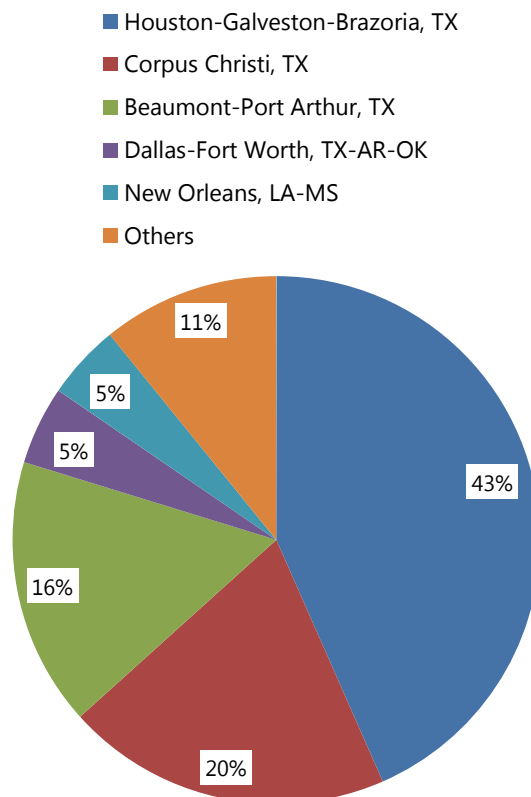
In the years 2006–2010, 12.1 million tons of wheat were shipped by rail from Oklahoma, a 17.5-percent increase from 10.3 million tons from 1996 to 2000. (fig. 4)

Figure 3. Sources of Oklahoma Rail Soybean Receipts, 2006–2010



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 4. Business Economic Areas Receiving Oklahoma Wheat by Rail, 2006–2010



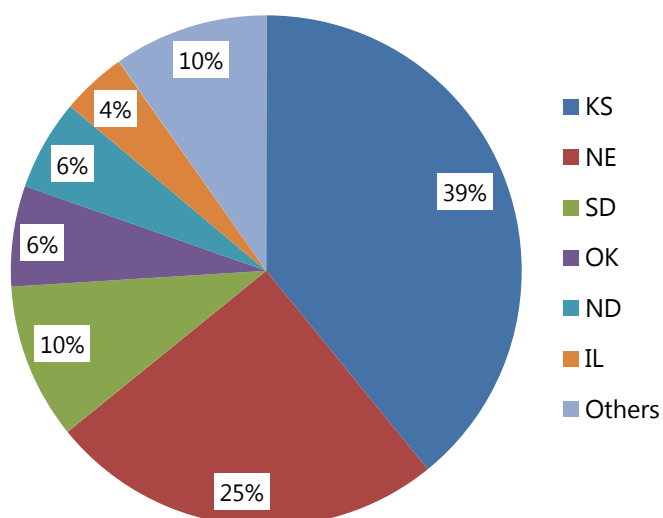
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

In the years 2006–2010, 2.6 million tons of wheat were received by Oklahoma, a 177-percent increase from the 951,000 tons received from 1996 to 2000. (fig. 5)

Three percent of the grain car shipments originating in Oklahoma from 2006 to 2010 were 1–5 cars in size, 24 percent were 6–49 cars, 3 percent were 50–74 cars, and the remaining 70 percent of shipments were 75 cars or greater. (fig. 6)

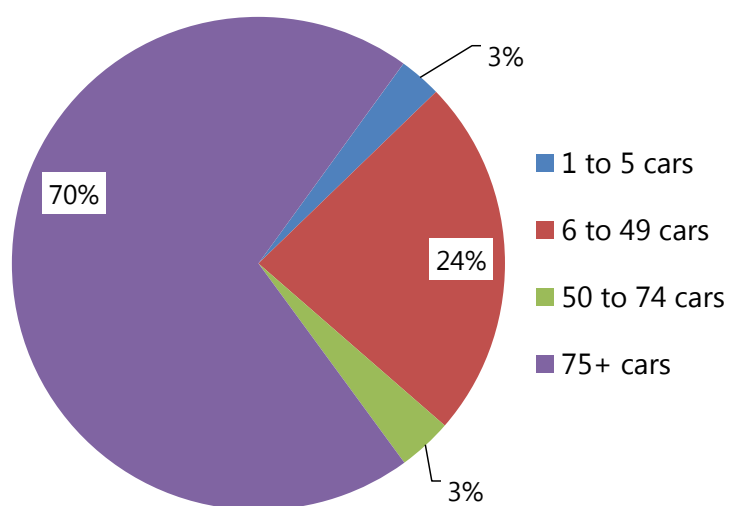
Average tariff rail rates for shipments originating in Oklahoma were 3.9 cents per ton-mile from 2006 to 2010. Rates ranged from 2.50 cents per ton-mile in 2001 to 5.16 cents in 2010. Rates increased 74 percent from 2005 to 2010. (fig. 7)

Figure 5. Sources of Oklahoma Rail Wheat Receipts, 2006–2010



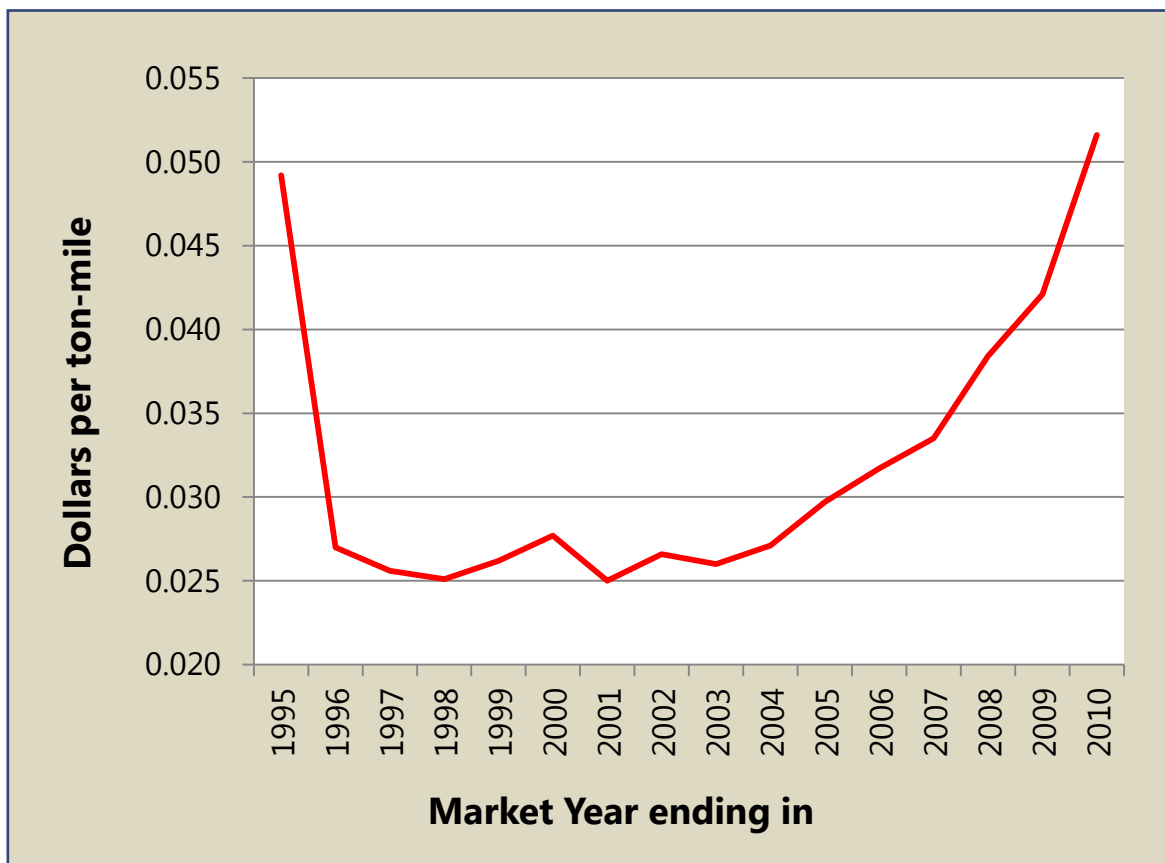
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 6. Oklahoma Grain Originations by Shipment Size



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 7. Average Oklahoma Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
Average Yearly Production	35.37 mbu†	8.26 mbu	108.80 mbu	174.77 mbu	15,033,856
Total Rail Receipts (tons)	9,284,415	125,016	2,637,918	-	-
Total Rail Shipments (tons)	68,770	-	12,053,613	-	-

* Grain Consuming Animal Units

† Million bushels

Data and Methodology

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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Preferred citation:

Prater, Marvin E., Daniel O'Neil, Jr., and Adam Sparger. *Shipments of Grain by Rail in Oklahoma*. U.S. Department of Agriculture, Agricultural Marketing Service, January 2014. Web. <<http://dx.doi.org/10.9752/TS129.01-2014>>