

# Shipments of Grain by Rail in Tennessee

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This summary of grain shipments by rail in Tennessee 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.

Tennessee ranks 27th among the grain and oilseed producing States, with a 2006–2010 average yearly production of 154.1 million bushels (mbu).

In the period 2006–2010, corn comprised 50 percent of Tennessee crops, soybeans 29 percent, wheat 11 percent, cottonseed 10 percent, and sorghum 1 percent.

Nationally, Tennessee is ranked 30th in animal and poultry production, averaging 3.2 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

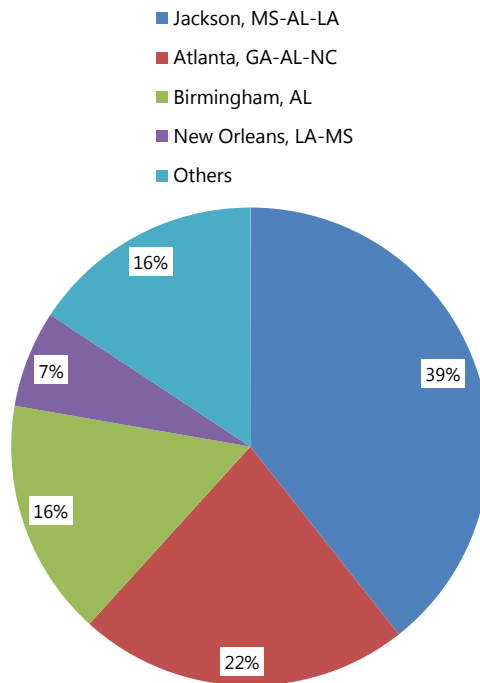
In the crop marketing years 2001–2004, railroad originations of grain and oilseeds averaged a market share of 42 percent, which dropped to an average of 30.8 percent during 2007–2010.

During the period 2006–2010, Tennessee shipped 2.8 million tons of corn by rail, up 51.5 percent from 1.8 million tons from 1996 to 2000. (fig. 1)

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

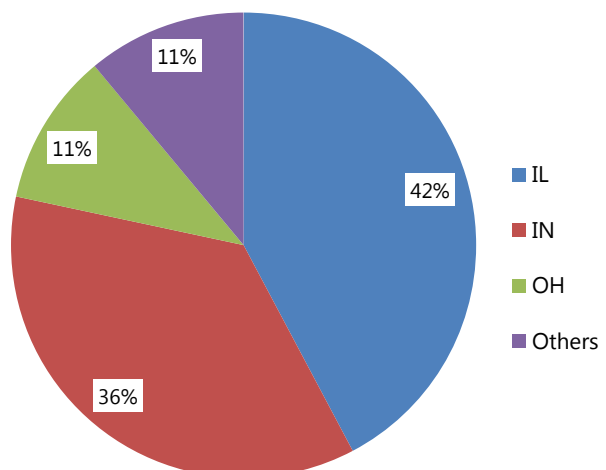
2 A standard unit used to compare feed needs of different livestock and poultry.

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



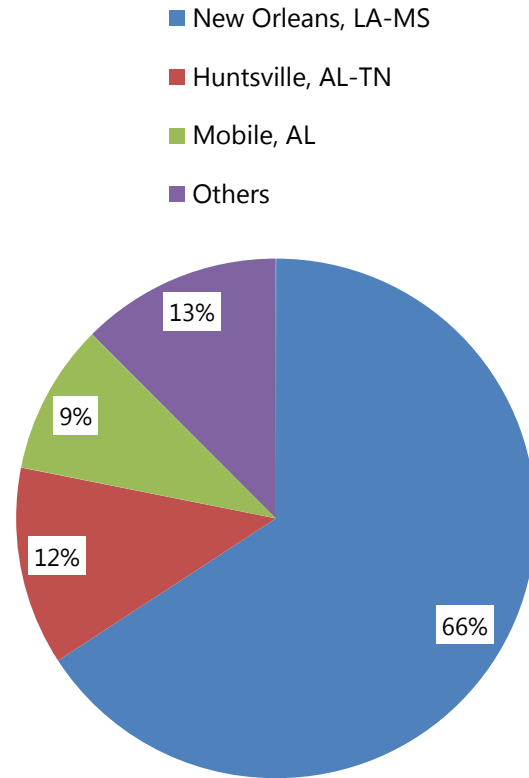
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Tennessee received a total of 18.7 million tons of corn by rail during the 2006–2010 marketing years, up 55.7 percent from 12 million tons during the 1996–2000 marketing years. (fig. 2)

From 2006 to 2010, Tennessee shipped 844,000 tons of soybeans by rail, up 55.3 percent from 544,000 tons shipped in the period 1996–2000. (fig. 3)

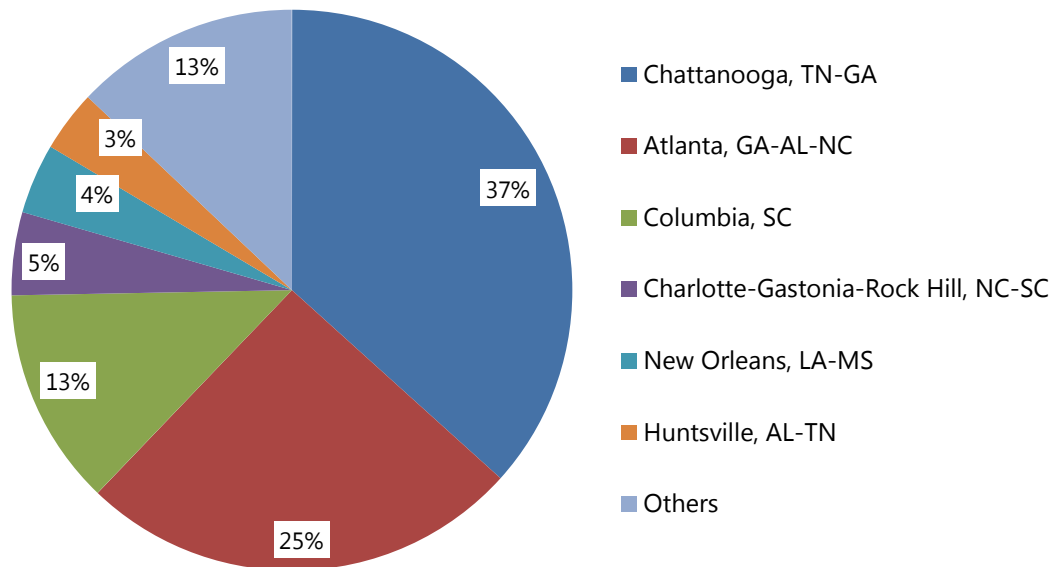
In the years 2006–2010, 1.7 million tons of wheat were shipped by rail from Tennessee, a 29.2-percent decrease from 2.4 million tons from 1996 to 2000. (fig. 4)

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



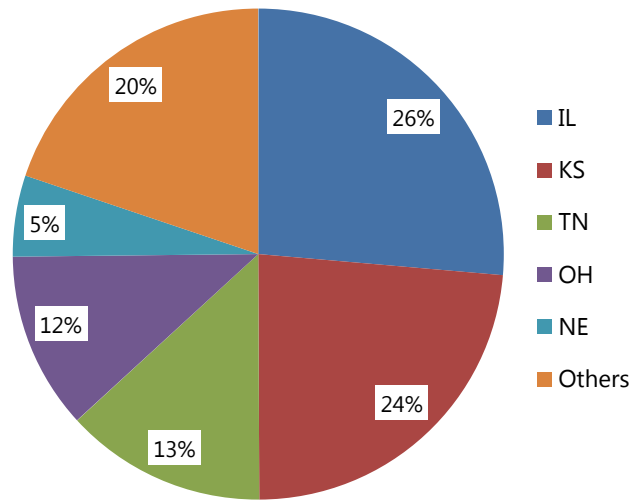
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Tennessee received a total of 4.7 million tons of wheat by rail during the 2006–2010 marketing years, down 8.1 percent from 5.1 million tons during the 1996–2000 marketing years. (fig. 5)

Twenty-five percent of the grain car shipments originating in Tennessee from 2006 to 2010 were 1–5 cars in size, 62 percent were 6–49 cars, and the remaining 13 percent of shipments were 50–74 cars long. (fig. 6)

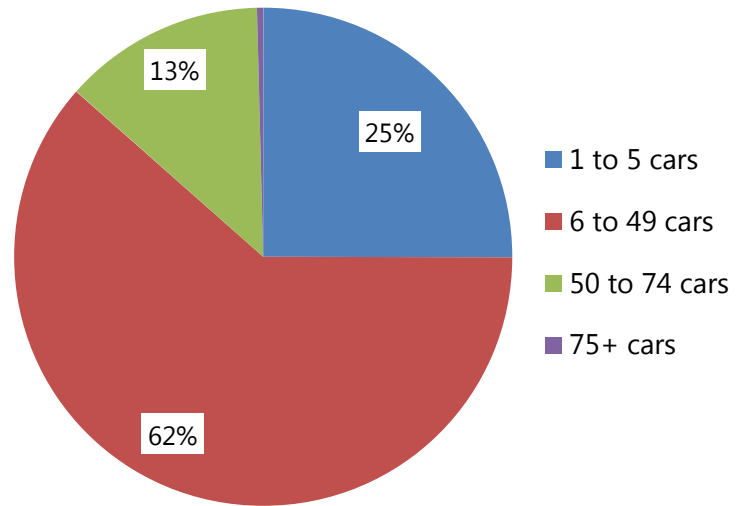
Average tariff rail rates for shipments originating in Tennessee were 5.2 cents per ton-mile from 2006 to 2010. Rates ranged from 2.5 cents per ton-mile in 2004 to 6.3 cents in 2007. Rates increased 16 percent from 2005 to 2010. (fig. 7)

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



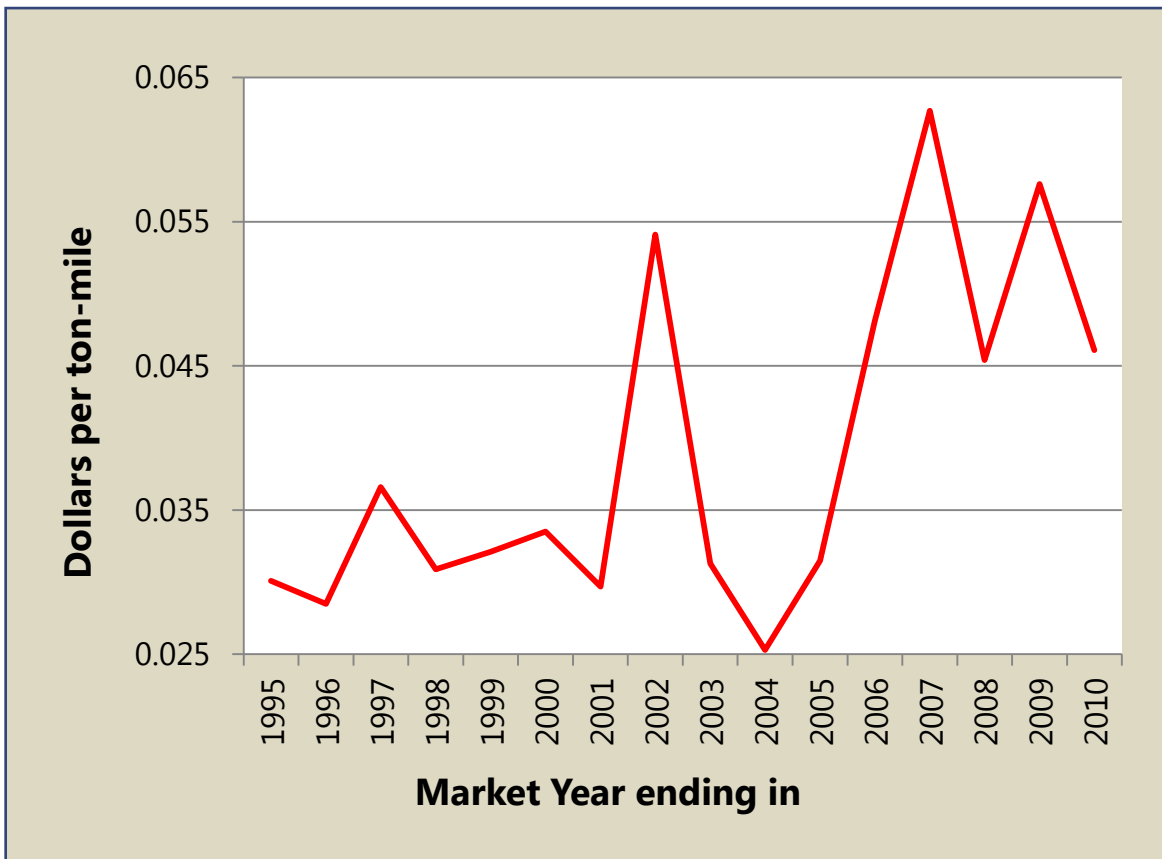
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

**Figure 6. Tennessee Grain Originations by Shipment Size**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 7. Average Tennessee Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
<b>Average Yearly Production</b>	76.56 mbut†	45.09 mbu	16.49 mbu	154.07 mbu	3,151,258
<b>Total Rail Receipts (tons)</b>	18,723,081	-	4,707,679	-	-
<b>Total Rail Shipments (tons)</b>	2,797,416	844,212	1,700,996	-	-

\* 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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