

# Shipments of Grain by Rail in Washington

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This summary of grain shipments by rail in Washington 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.

Washington ranks 24th among the grain and oilseed producing States, with a 2006–2010 average yearly production of 162.6 million bushels (mbu).

In the years 2006–2010, wheat comprised 81 percent of Washington crops, corn 13 percent, and barley 6 percent.

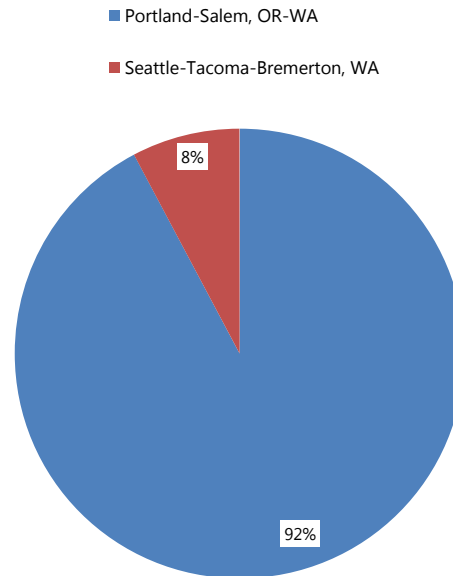
Nationally, Washington is ranked 29th in animal and poultry production, averaging 3.4 million Grain Consuming Animal Units (GCAU)<sup>2</sup> from 2006 to 2010.

For each year from 2006 to 2010, an average of 23.9 million metric tons of grain and oilseeds were inspected for export from Washington. During the crop marketing years from 2001 to 2004, railroad originations of grain and oilseeds averaged a market share of 31 percent, later rising to an average of 35.6 percent in the period from 2007 to 2010.

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

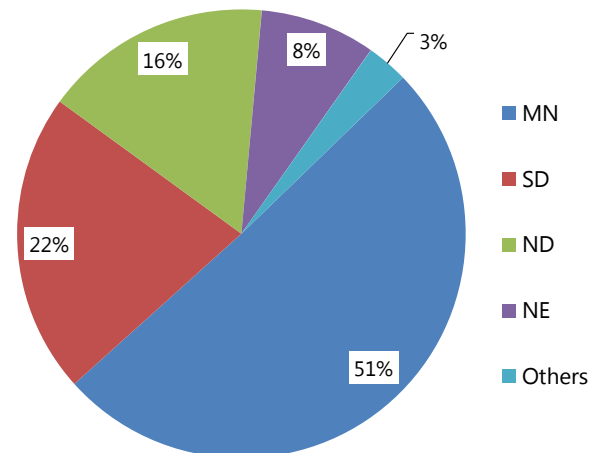
2 A standard unit used to compare feed needs of different livestock and poultry.

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

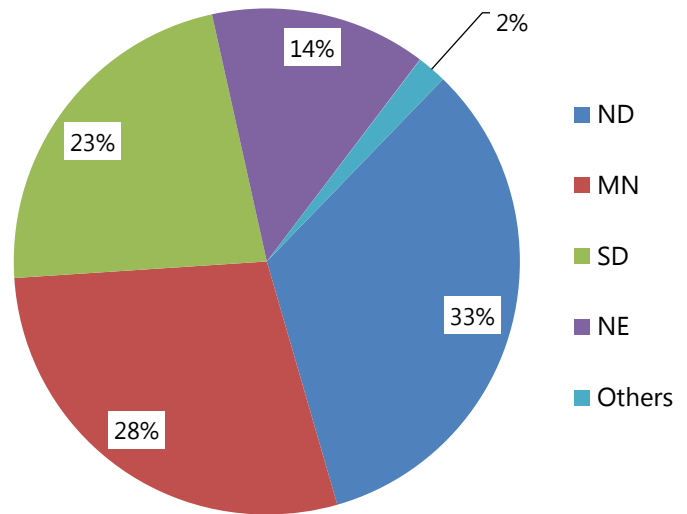
During the period 2006–2010, Washington shipped 137,000 tons of corn by rail, up 60.4 percent from 86,000 tons from 1996 to 2000. (fig. 1)

Washington received a total of 66.8 million tons of corn by rail during the 2006–2010 marketing years, up 42 percent from 47 million tons during the 1996–2000 marketing years. (fig. 2)

Washington received a total of 55.8 million tons of soybeans by rail during the 2006–2010 marketing years, up 665 percent from 7.3 million tons during the 1996–2000 marketing years. (fig. 3)

In the years 2006–2010, 7.4 million tons of wheat were shipped by rail from Washington, a 47.1-percent increase from 5 million tons from 1996 to 2000. (fig. 4)

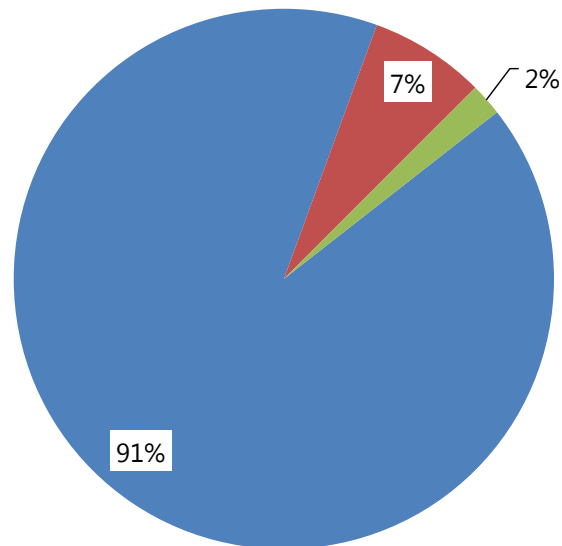
**Figure 3. Sources of Washington Rail Soybean Receipts, 2006–2010**



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

- Portland-Salem, OR-WA
- Seattle-Tacoma-Bremerton, WA
- Others



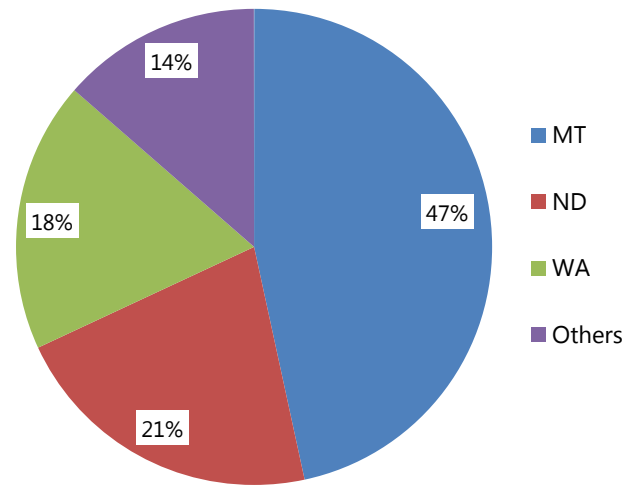
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Washington received a total of 27.6 million tons of wheat by rail during the 2006–2010 marketing years, up 36.7 percent from 20.2 million tons during the 1996–2000 marketing years. (fig. 5)

Seven percent of the grain car shipments originating in Washington from 2006 to 2010 were 1–5 cars in size, 35 percent were 6–49 cars, and the remaining 58 percent of shipments were 75 cars or greater. (fig. 6)

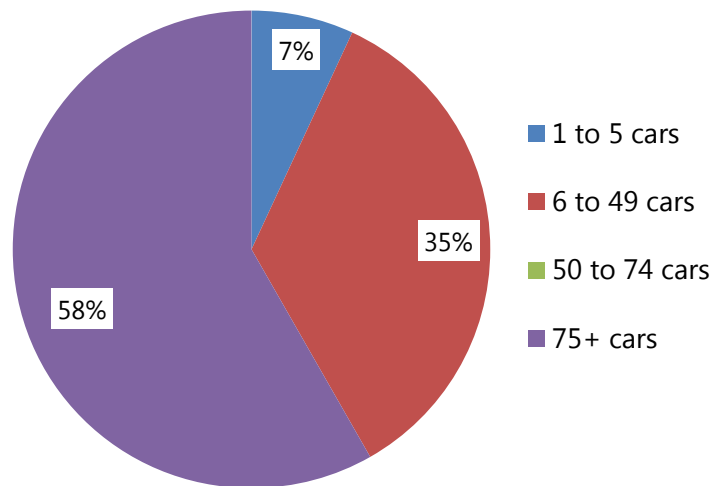
Average tariff rail rates for shipments originating in Washington were 3.6 cents per ton-mile from 2006 to 2010. Rates ranged from 2.92 cents per ton-mile in 2003 to 4.67 cents in 2010. Rates increased 51 percent from 2005 to 2010. (fig. 7)

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



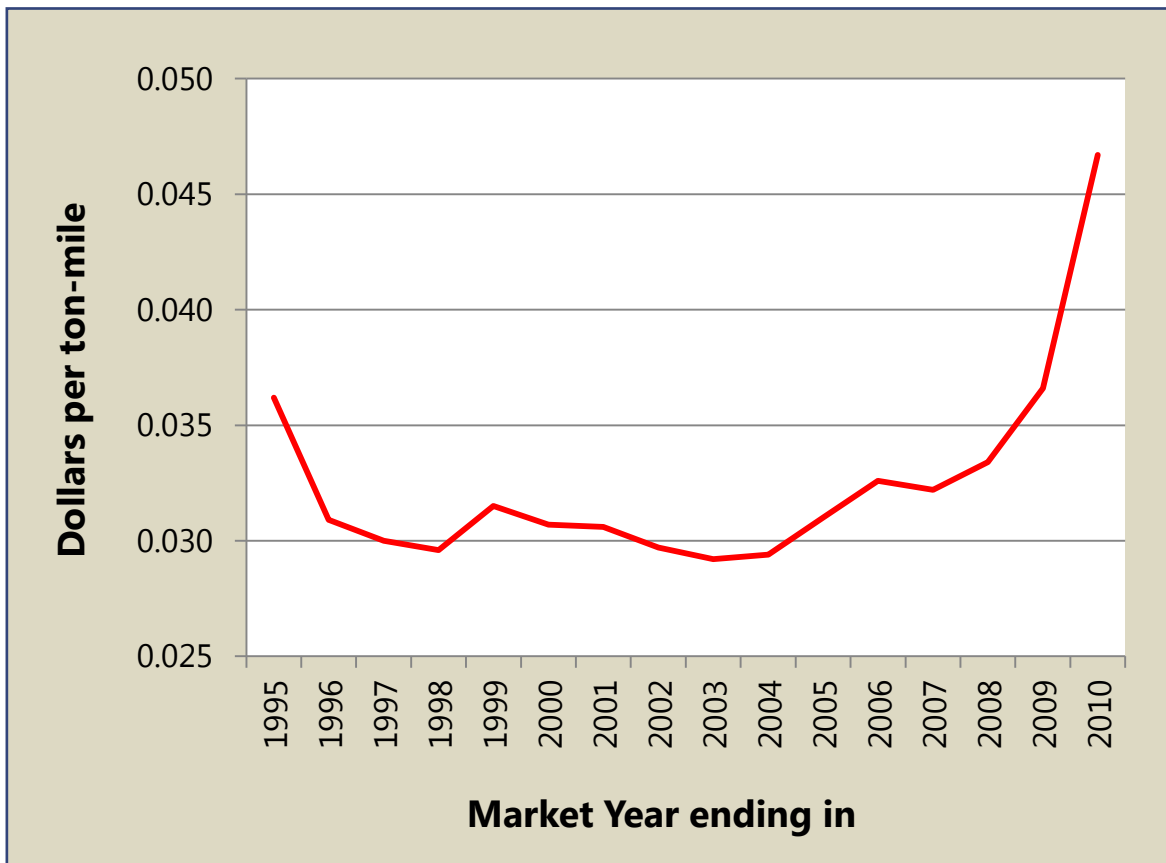
Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

Figure 7. Average Washington Rail Tariff Rates



Source: USDA analysis of Surface Transportation Board Confidential Waybill Samples

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

	Corn	Soybeans	Wheat	Total Grain and Oilseeds	GCAUs*
Average Yearly Production	21.31 mbut†	-	131.03 mbu	162.64 mbu	3,425,626
Average Yearly Export Inspections (metric tons)	9,736,423	8,409,814	5,536,123	23,874,512	-
Total Rail Receipts (tons)	66,781,322	55,791,700	27,564,503	-	-
Total Rail Shipments (tons)	137,272	-	7,381,341	-	-

\* 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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