Freight Transportation Profile—Nebraska Freight Analysis Framework

Understanding future freight activity is important for matching infrastructure supply to demand and for assessing potential investment and operational strategies. To help decisionmakers identify areas in need of capacity improvements, the U.S. Department of Transportation developed the Freight Analysis Framework (FAF), a comprehensive national database and analysis tool that examines freight flows for the truck, rail, water, and air modes. FAF also forecasts freight activity in 2010 and 2020 for each of these modes. Information about the methodology used in developing FAF is available on the Office of Freight Management and Operations' website www.ops.fhwa.dot.gov/freight.

The U.S. freight transportation network moves a staggering volume of goods each year. Over 15 billion tons of goods, worth over $9 trillion were moved in 1998. The movement of bulk goods, such as grains, coal, and ores, still comprises a large share of the tonnage moved on the U.S. freight network. However, lighter and more valuable goods, such as computers and office equipment, now make up an increasing proportion of what is moved. FAF estimates that trucks carried about 71 percent of the total tonnage and 80 percent of the total value of U.S. shipments in 1998. By 2020, the U.S. transportation system is expected to handle about 23 billion tons of cargo valued at nearly $30 trillion.

Nebraska

Table 1 presents information on freight shipments that have either an origin or a destination in Nebraska. As shown in the table, trucks moved a large percentage of the tonnage and value of shipments, followed by rail. Figures 1 and 2 show freight flows on the highway and rail modes.

Truck traffic is expected to grow throughout the state over the next 20 years. Much of the growth will occur in urban areas and on the Interstate highway system (Figures 3 and 4). Truck traffic moving to and from Nebraska accounted for 15 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 7 percent of truck traffic involved in-state shipments, and 62 percent involved trucks traveling across the state to other markets. Sixteen percent of the AADTT were not identified with a route-specific origin or destination.

Table 2 shows the top five commodity groups shipped to, from, and within Nebraska by all modes. As expected, the top commodities by weight are farm products and minerals. By value, the top commodities are farm and food products followed by secondary traffic, which is defined as freight flows to and from distribution centers or through intermodal facilities. No commodities are assigned to this intermediate step in the transportation process.

Table 1. Freight Shipments To, From, and Within Nebraska: 1998, 2010, and 2020

NEBRASKA	Tons (millions)			Value (billions $)		
	1998	2010	2020	1998	2010	2020
State Total	206	279	330	109	200	312
By Mode						
Air	<1	<1	<1	5	13	23
Highway	157	214	252	95	173	268
Other[a]	<1	<1	<1	<1	<1	<1
Rail	49	65	77	8	14	21
Water	<1	<1	<1	<1	<1	<1
By Destination/Market						
Domestic	201	272	319	105	193	301
International	4	7	10	3	6	11

Note: Modal numbers may not add to totals due to rounding.

[a] The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

Figure 1. Freight Flows To, From, and Within Nebraska by Truck: 1998 (tons)

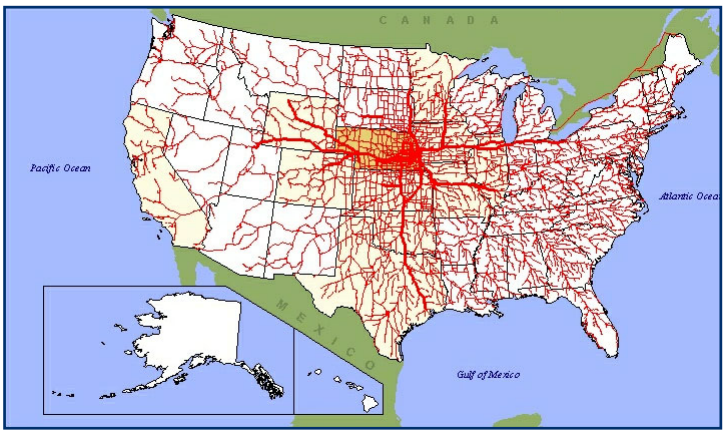

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Figure 2. Freight Flows To, From, and Within Nebraska by Rail: 1998 (tons)

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Figure 3. Estimated Average Annual Daily Truck Traffic: 1998

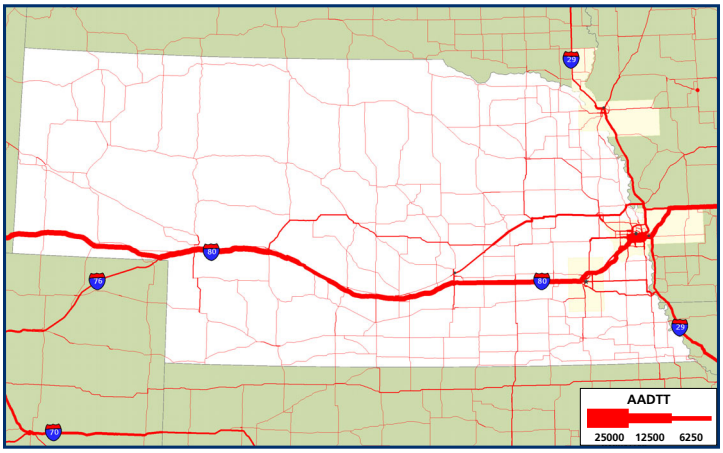

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Figure 4. Estimated Average Annual Daily Truck Traffic: 2020

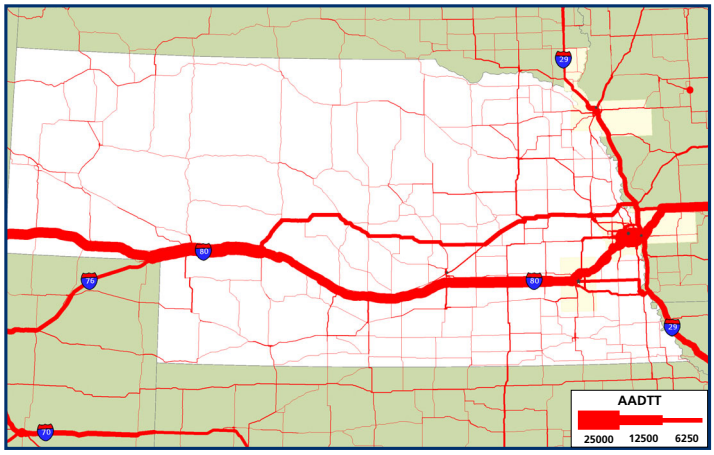

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Table 2. Top Five Commodities Shipped To, From, and Within Nebraska by All Modes: 1998 and 2020

Commodity	Tons (millions) 1998	Tons (millions) 2020	Commodity	Value (billions $) 1998	Value (billions $) 2020
Farm Products	82	105	Farm Products	29	46
Nonmetallic Minerals	36	51	Food/Kindred Products	22	75
Food/Kindred Products	26	53	Secondary Traffic	12	53
Coal	15	19	Chemicals/Allied Products	9	23
Secondary Traffic	12	34	Transportation Equipment	8	19

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October 2002
FHWA-OP-03-018
EDL 13706

A series of FAF products are available on the website noted below. FAF outputs include freight flow maps for states, modes, and gateways; detailed databases on traffic flows and commodity movements; information on the methodologies used to develop FAF; and forecast assumptions.

The U.S. Department of Transportation, Bureau of Transportation Statistics (BTS) is also developing a series of state transportation profiles. For more information and to obtain a copy of the BTS reports, please call 202-366-DATA.

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