Freight Transportation Profile—Oregon 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 data and analysis tool, including county-to-county 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.

Oregon

Table 1 presents information on freight shipments that have either an origin or a destination in Oregon. 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 Oregon accounted for 18 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 22 percent of truck traffic involved in-state shipments, and 13 percent involved trucks traveling across the state to other markets. About 47 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 Oregon by all modes. The top commodities by weight are lumber or wood products and farm products. By value, the top commodities are lumber or wood products and secondary traffic. Secondary traffic 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.

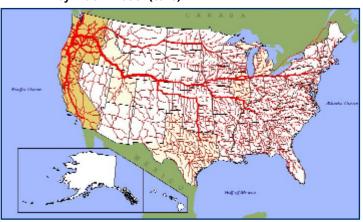
Table 1. Freight Shipments To, From, and Within Oregon: 1998, 2010, and 2020

OREGON	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	291	428	557	201	411	704
By Mode						
Air	<1	<1	1	15	42	85
Highway	220	323	420	165	330	555
Other ^a	2	3	4	<1	<1	<1
Rail	53	81	109	18	34	55
Water	16	20	24	3	5	8
By Destination/Market						
Domestic	258	372	477	180	362	613
International	33	55	81	22	49	90

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

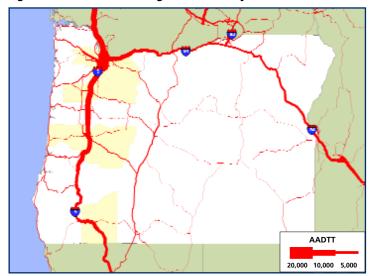
^a The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

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



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Figure 3. Estimated Average Annual Daily Truck Traffic: 1998



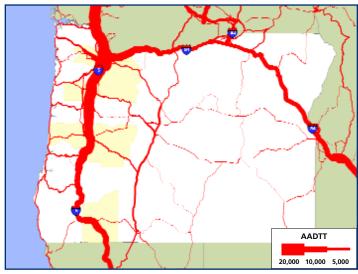
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Figure 2. Freight Flows To, From, and Within Oregon by Rail: 1998 (tons)



Federal Railroad Administration

Figure 4. Estimated Average Annual Daily Truck Traffic: 2020



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

	Tons (millions)			Value (billions \$)	
Commodity	1998	2020	Commodity	1998	2020
Lumber/Wood Products	105	150	Lumber/Wood Products	41	101
Farm Products	38	63	Secondary Traffic	39	176
Secondary Traffic	38	115	Transportation Equipment	23	58
Freight All Kinds ^a	18	39	Freight All Kinds ^a	16	53
Clay/Concrete/Glass/Stone	18	39	Chemicals/Allied Products	13	49

^a The "Freight All Kinds" category refers to general freight shipments..

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November 2002 FHWA-OP-03-045 EDL 13733 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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