



Freight Transportation Profile—Delaware

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.

Delaware

Table 1 presents information on freight shipments that have either an origin or a destination in Delaware. As shown in the table, trucks moved the largest percentage of the tonnage and value of shipments. 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 Delaware accounted for 6 percent of the average annual daily truck traffic (AADTT) on the FAF road network. Approximately 2 percent of truck traffic involved in-state shipments, and 24 percent involved trucks traveling across the state to other markets. About 68 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 Delaware by all modes. The top commodities by weight are crude petroleum or natural gas and petroleum or coal products. By value, the top commodities are transportation equipment 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 Delaware: 1998, 2010, and 2020

DELAWARE	Tons (millions)			Value (billions \$)		
	1998	2010	2020	1998	2010	2020
State Total	92	133	164	64	123	198
By Mode						
Air	<1	<1	<1	<1	<1	<1
Highway	52	80	106	56	110	181
Other ^a	17	22	25	2	3	4
Rail	8	11	12	4	6	9
Water	15	20	21	2	3	4
By Destination/Market						
Domestic	68	100	122	55	107	171
International	23	34	42	8	16	27

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 Delaware by Truck: 1998 (tons)



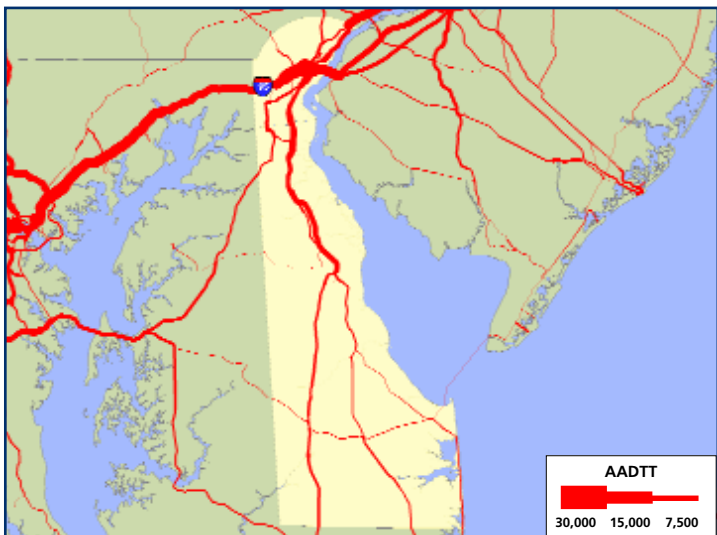
Federal Highway Administration

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



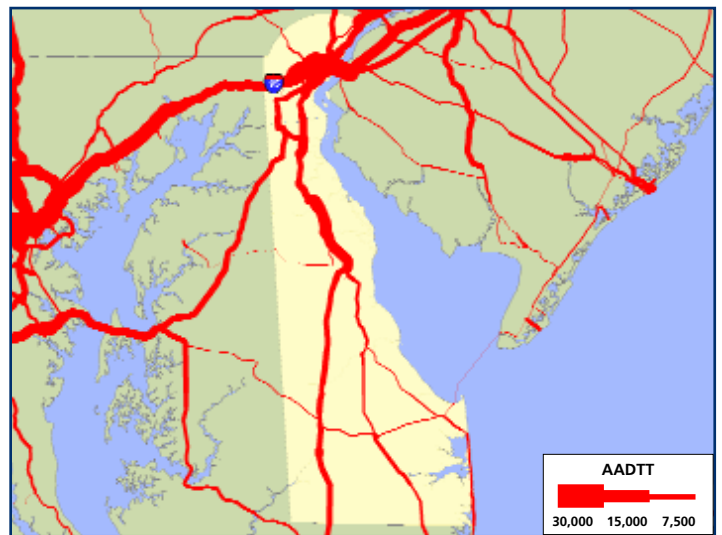
Federal Railroad Administration

Figure 3. Estimated Average Annual Daily Truck Traffic: 1998



Federal Highway Administration

Figure 4. Estimated Average Annual Daily Truck Traffic: 2020



Federal Highway Administration

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

Commodity	Tons (millions)		Commodity	Value (billions \$)	
	1998	2020		1998	2020
Crude Petroleum/Natural Gas	16	23	Transportation Equipment	12	22
Petroleum/Coal Products	12	13	Secondary Traffic	11	48
Waste/Scrap Materials	11	17	Chemicals/Allied Products	10	29
Secondary Traffic	11	32	Food/Kindred Products	9	35
Food/Kindred Products	9	21	Instr/Photo Equip/Optical Equip	4	15

For More Information, Please Contact

Bruce Lambert
Office of Freight Management and Operations
Federal Highway Administration
202-366-4241
bruce.lambert@fhwa.dot.gov

November 2002
FHWA-OP-03-061
EDL 13749

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.



U.S. Department
of Transportation

**Federal Highway
Administration**