

IV. THE FREIGHT TRANSPORTATION INDUSTRY



The freight industry has many components, encompassing companies large and small. All told there were about 200,000 transportation and warehousing establishments in 2002, with more than half of those primarily engaged in trucking. Trucking revenue accounts for about 40 percent of the transportation and warehousing sector. Revenue generated by warehousing is a small percentage of the entire transportation and warehousing sector.

Table 4-1. Economic Characteristics of Transportation and Warehousing in Freight Dominated Modes North American Industry Classification System (NAICS) Basis

	Establishments		Revenue (\$ thousands)		Payroll (\$ thousands)		Paid Employees	
	1997	2002	1997	2002	1997	2002	1997	2002
Transportation and warehousing¹	178,025	(R) 200,421	318,245,044	394,456,801	82,346,182	(R) 118,251,681	2,920,777	(R) 3,757,426
Rail transportation	NA	NA	NA	NA	NA	NA	NA	NA
Water transportation	1,921	(R) 1,924	24,019,168	(R) 23,124,300	2,834,114	(R) 3,031,880	72,857	(R) 65,326
Truck transportation ¹	103,798	(R) 112,698	141,225,398	(R) 165,561,328	38,471,272	(R) 47,833,733	1,293,790	(R) 1,437,259
Pipeline transportation	2,311	(R) 2,512	26,836,992	(R) 27,641,362	2,660,576	(R) 3,082,558	49,280	(R) 46,556
Support activities for transportation	30,675	(R) 34,223	39,758,245	(R) 62,315,569	12,592,441	(R) 16,558,036	411,640	(R) 478,166
Couriers and messengers	10,887	(R) 12,754	39,812,433	(R) 59,373,155	14,071,630	(R) 17,431,848	530,839	(R) 578,257
Warehousing and storage ¹	6,497	(R) 12,637	10,657,925	(R) 17,924,787	2,926,119	(R) 18,689,122	109,760	(R) 639,174

Key: NA = not available; R = revised.

¹Enterprise support establishments are included in 2002 but not 1997, thus the two years are not comparable.

Notes: Total includes air transportation, transit and ground passenger transportation, and scenic and sightseeing transportation. Data are for establishments in which transportation is the primary business. Data exclude transportation provided privately, such as trucking organized "in-house" by a grocery company. Data are not collected for rail transportation nor for governmental organizations even when their primary activity would be classified in industries covered by the census. For example, data are not collected for publicly-operated buses and subway systems. Data for 2002 are preliminary and subject to change.

Table 4-2. Economic Characteristics of Freight Railroads

	Class I		Non-Class I		Total	
	1997	2002	1997	2002	1997	2002
Number of railroads	9	7	541	545	550	552
Freight revenue (billions \$)	32.3	34.1	3.0	2.8	35.3	36.9
Operating revenue (billions \$)	33.1	35.3	NA	NA	NA	NA
Employees	177,981	157,372	22,736	19,688	200,717	177,060

Key: NA = not available.

TABLE 4-1. ECONOMIC CHARACTERISTICS OF TRANSPORTATION AND WAREHOUSING IN FREIGHT DOMINATED MODES, NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) BASIS

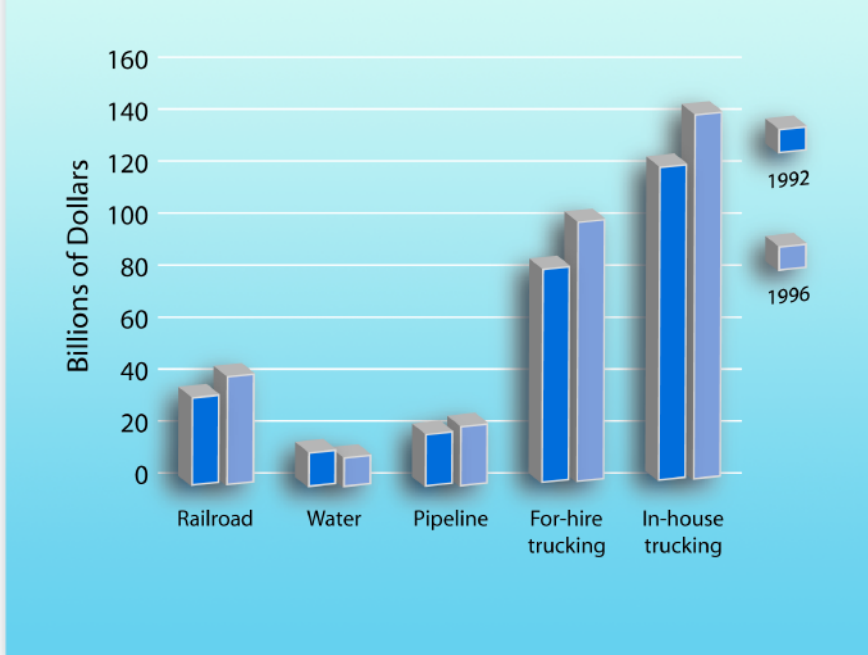
Source: U.S. Department of Commerce, Census Bureau, *2002 Economic Census, Transportation and Warehousing, United States*, available at http://www.census.gov/econ/census02/data/us/US000_48.HTM as of September 14, 2005; U.S. Department of Commerce, Census Bureau, *1997 Economic Census, Transportation and Warehousing, United States*, available at http://www.census.gov/epcd/ec97/us/US000_48.HTM as of September 14, 2005.

TABLE 4-2. ECONOMIC CHARACTERISTICS OF FREIGHT RAILROADS

Source: Association of American Railroads, *Railroad Facts* (Washington, DC: Annual issues).



Figure 4-1. Value Added by Freight Transportation to GDP by Mode

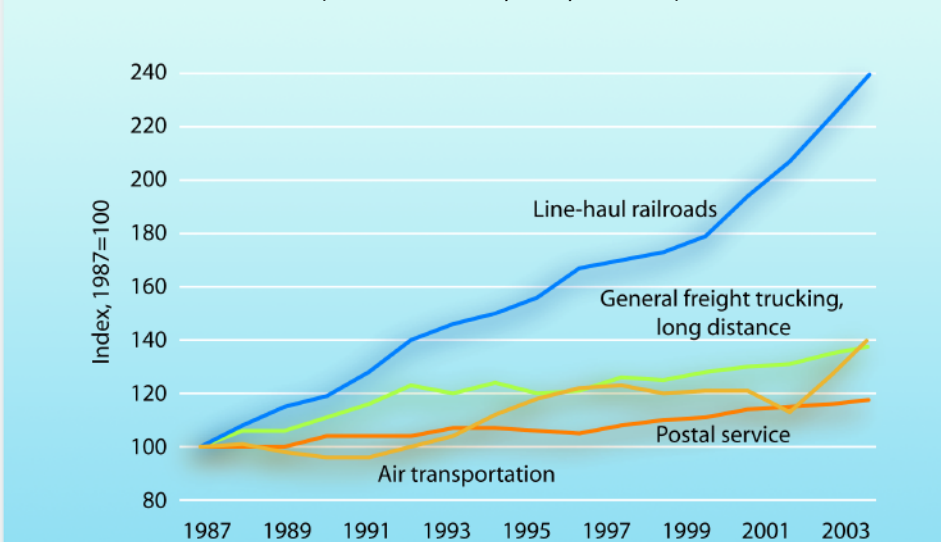


Freight transportation is a big part of the economy. The value generated by transportation services in moving goods and people on the transportation system is about 5 percent of Gross Domestic Product. In the transportation services sector about 60 percent of the value is generated by for-hire transportation services and the rest is generated by “in-house” transportation (transportation provided by businesses for their own

use). In-house trucking accounted for \$142 billion of GDP in 1996 (the latest year for which data are available) and for-hire trucking accounted for \$101 billion.

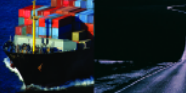
In general, moving goods is cheaper now than in the past. Productivity has improved in both long-distance railroading and long-distance trucking over the past decade, but

Figure 4-2. Productivity in Selected Transportation Industries: 1987-2003
(OUTPUT PER EMPLOYEE,¹ INDEX, 1987 = 100)



¹Based on the number of paid hours. Real gross domestic product in the business and nonfarm business sectors is the basis of the output components of the productivity measures. These output components are based on and are consistent with the National Income and Product Accounts (NIPA), including the gross domestic product (GDP) measure, prepared by the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce.

much more quickly in rail than road transportation. Between 1987 and 2003, output per hour worked more than doubled in line-haul railroading but grew only 40 percent in long distance, general freight trucking. Line-haul railroads primarily engage in operating railroads for the transport of passengers



and/or cargo over a long distance within a rail network. These establishments do not include switching and terminal operations or short distance (or local) railroads. Long distance, general freight trucking establishments are operations other than those primarily engaged in local trucking and specialized trucking. Specialized trucking establishments are engaged in the transportation of freight that, because of size, weight, shape, or other inherent characteristics, requires specialized equipment, such as flatbeds, tankers, or refrigerated trailers.

Table 4-3. Employment in For-Hire Transportation Primarily Serving Freight¹ (Thousands)

	1980	1990	2000	2004
Total U.S. labor force²	90,528	109,487	131,785	131,480
Transportation and warehousing	2,961	3,476	4,410	4,250
Rail transportation	518	272	232	224
Water transportation	NA	57	56	57
Truck transportation	NA	1,122	1,406	1,351
Pipeline transportation	NA	60	46	39
Support activities for transportation	NA	364	537	536
Postal service	673	825	880	784
Couriers and messengers	NA	375	605	561
Warehousing and storage	NA	407	514	556

Key: NA = not available.

¹Annual averages.

²Excludes farm employment.

Note: These data include workers employed in transportation industries but not necessarily in a transportation occupation, such as a lawyer working for a trucking company. Moreover, these data exclude workers in transportation occupations employed by non-transportation industries, such as a truck driver employed by a retail company.

Employment in many transportation industries has remained steady or has grown over the past two decades, but it has plummeted in rail transportation as productivity has soared. Between 1980 and 2004, rail employment declined nearly 60 percent. Consequently, in 2004 rail transportation employed only 5 percent of those working in the transportation and warehousing industry compared with 18 percent in 1980. By comparison, employment in trucking in 2004 accounted for about one-third of employment in transportation and warehousing.

FIGURE 4-1. VALUE ADDED BY FREIGHT TRANSPORTATION TO GDP BY MODE

Source: U.S. Department of Transportation, Bureau of Transportation Statistics, special tabulation, September 2000.

FIGURE 4-2. PRODUCTIVITY IN SELECTED TRANSPORTATION INDUSTRIES: 1987-2003

Source: U.S. Department of Labor, Bureau of Labor Statistics, Industry Productivity, available at <http://www.bls.gov/> as of September 12, 2005.

TABLE 4-3. EMPLOYMENT IN FOR-HIRE TRANSPORTATION PRIMARILY SERVING FREIGHT (THOUSANDS)

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics survey, available at www.bls.gov as of July 1, 2005.



Freight transportation is a major employer, with truck driving by far the largest freight transportation occupation in the United States. There were approximately 2.9 million truck drivers in 2004; about 54 percent of these professionals drive heavy/tractor trailer trucks, 32 percent drive light/delivery service trucks, and about 14 percent are driver/sales workers.

Table 4-4. Employment in Selected Freight Transportation and Freight Transportation-Related Occupations

Occupation (SOC code)	1999	2000	2004
Vehicle operators, pipeline operators, and primary support			
Driver/sales worker (53-3031)	385,210	373,660	406,910
Truck drivers, heavy and tractor-trailer (53-3032)	1,558,400	1,577,070	1,553,370
Truck drivers, light or delivery services (53-3033)	1,085,050	1,033,220	938,730
Locomotive engineers (53-4011)	19,940	29,390	31,180
Rail yard engineers, dinky operators, and hostlers (53-4013)	5,070	4,020	6,170
Railroad brake, signal, and switch operators (53-4021)	14,500	16,830	16,410
Railroad conductors and yardmasters (53-4031)	36,680	40,380	35,720
Sailors and marine oilers (53-5011)	27,200	30,090	27,570
Captains, mates, and pilots of water vessels (53-5021)	20,660	21,080	25,200
Ship engineers (53-5031)	6,800	7,370	10,330
Bridge and lock tenders (53-6011)	6,970	4,790	3,500
Gas compressor and gas pumping station operators (53-7071)	6,940	6,510	4,680
Pump operators, except wellhead pumpers (53-7072)	13,480	13,730	9,810
Transportation equipment manufacturing and maintenance occupations			
Bus and truck mechanics and diesel engine specialists (49-3031)	273,320	258,800	251,430
Rail car repairers (49-3043)	7,230	10,620	18,140
Transportation Infrastructure construction and maintenance occupations			
Rail-track laying and maintenance equipment operators (47-4061)	8,620	9,940	10,430
Signal and track switch repairers (49-9097)	3,720	5,540	7,780
Dredge operators (53-7031)	1,910	3,100	1,730
Secondary support service occupations			
Dispatchers, except police, fire, and ambulance (43-5032)	171,560	167,180	165,910
Postal service mail carriers (43-5052)	352,550	354,980	344,050
Shipping, receiving, and traffic clerks (43-5071)	886,230	864,530	747,270
Transportation inspectors (53-6051)	22,440	26,520	24,140
Tank car, truck, and ship loaders (53-7121)	20,830	17,480	16,530

Key: SOC = Standard Occupational Classification.

TABLE 4-4. EMPLOYMENT IN SELECTED FREIGHT TRANSPORTATION AND FREIGHT TRANSPORTATION-RELATED OCCUPATIONS

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Employment and Wages, 2004* (Washington, DC: May 2004), available at <http://www.bls.gov/oes> as of July 5, 2005.