

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 35 to 40 percent of the transportation and warehousing sector, including revenue from railroading (at about \$37 billion according to the Association of American Railroads). 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	200,706	318,245,044	S	346,182,	116,767,289	2,920,777	3,751,022
Rail transportation	NA	NA	NA	NA	NA	NA	NA	NA
Water transportation	1,921	1,954	24,019,168	26,651,477	2,834,114	3,110,424	72,857	69,017
Truck transportation ¹	103,798	113,237	141,225,398	167,151,284	38,471,272	47,465,798	1,293,790	1,464,877
Pipeline transportation	2,311	2,410	26,836,992	27,845,032	2,660,576	3,389,781	49,280	51,089
Support activities for transportation	30,675	34,458	39,758,245	62,524,885	12,592,441	17,837,033	411,640	519,278
Couriers and messengers	10,887	12,540	39,812,433	54,735,251	14,071,630	17,083,438	530,839	584,939
Warehousing and storage ¹	6,497	12,123	10,657,925	S	2,926,119	15,890,514	109,760	534,768

Key: NA = not available; S = estimates do not meet publication standards because of high sampling variability or poor response quality.

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: 2002

	Class I	Non-Class I	Total
Number of railroads	7	545	552
Freight revenue (billions \$)	34.1	2.8	36.9
Operating revenue (billions \$)	35.3	NA	NA
Employees	157,372	19,688	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

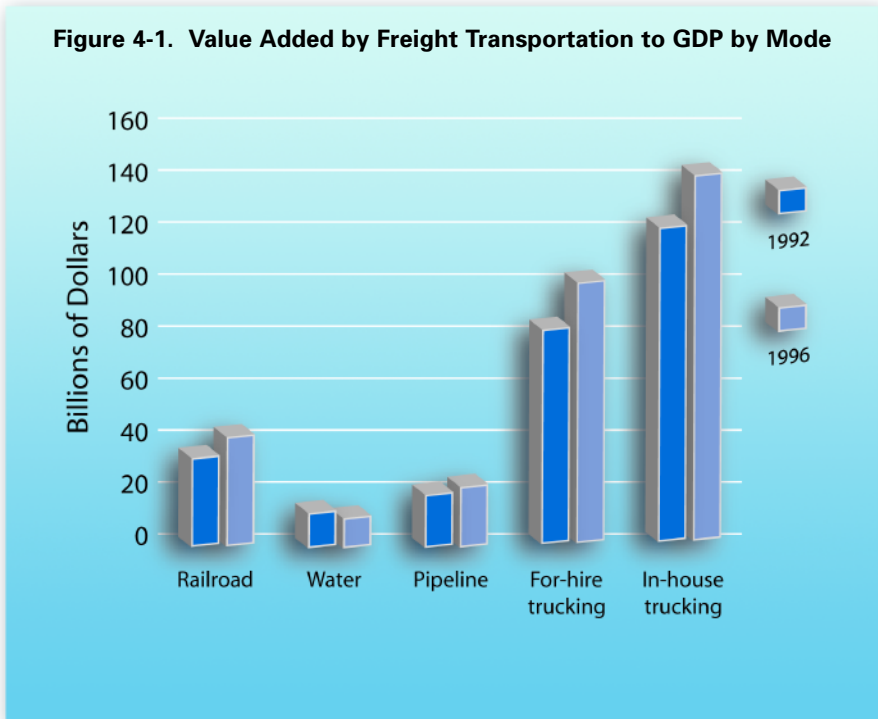
Source: U.S. Department of Commerce, U.S. Census Bureau, *2002 Economic Census: Table 2. Advance Comparative Statistics for the United States, 1997 NAICS Basis*, available at <http://www.census.gov/econ/census02/advance/TABLE2.htm>.

TABLE 4-2. ECONOMIC CHARACTERISTICS OF FREIGHT RAILROADS: 2002

Source: Association of American Railroads, *U.S. Freight Railroad Statistics* (Washington, DC: 2004), available at <http://www.aar.org/PubCommon/Documents/AboutTheIndustry/Statistics.pdf> as of August 24, 2004.



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

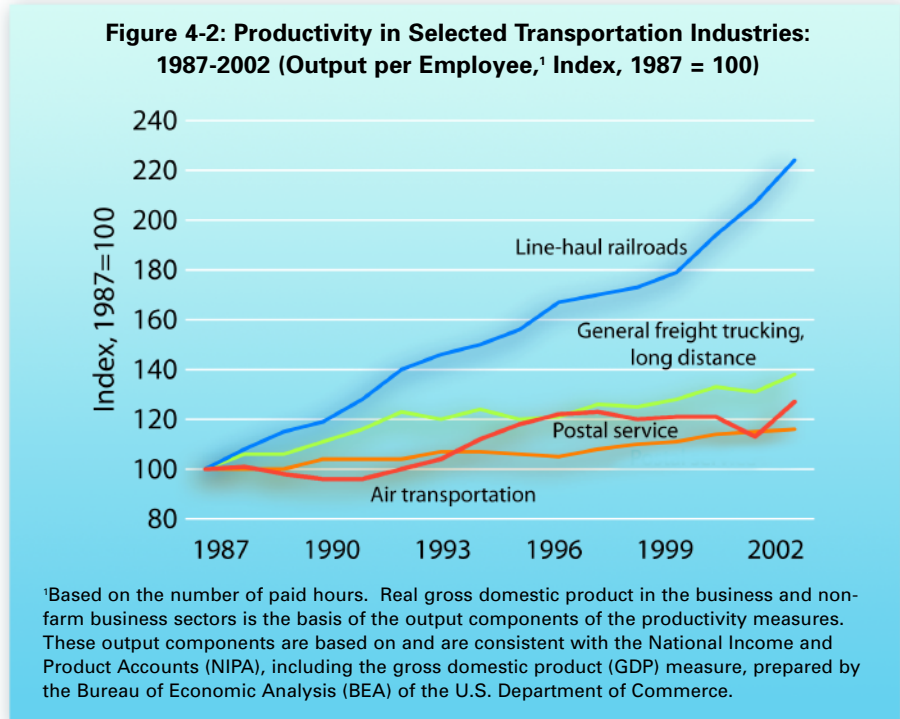


In general, moving goods is cheaper now than in the past. Productivity has improved in both long distance railroading and long distance trucking over the past decade, but much more quickly in rail than road transportation. Between 1987 and 2002, output per hour worked more than doubled in line-haul railroading 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 nor 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 primarily engaged in the transportation of freight which, because of size, weight, shape, or other inherent

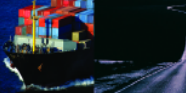
characteristics, requires specialized equipment, such as flatbeds, tankers, or refrigerated trailers.

Figure 4-2: Productivity in Selected Transportation Industries: 1987-2002 (Output per Employee,¹ Index, 1987 = 100)



¹Based on the number of paid hours. Real gross domestic product in the business and non-farm 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.

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 2003,



rail employment declined nearly 60 percent. Consequently, in 2003 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 2003, accounted for about one-third of employment in transportation and warehousing.

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

	1980	1990	2000	2003
Total U.S. labor force²	90,528	109,487	131,785	129,931
Transportation and warehousing	2,961	3,476	4,410	4,177
Rail transportation	518	272	232	215
Water transportation	NA	57	56	53
Truck transportation	NA	1,122	1,406	1,328
Pipeline transportation	NA	60	46	40
Support activities for transportation	NA	364	537	516
Postal service	673	825	880	809
Couriers and messengers	NA	375	605	567
Warehousing and storage	NA	407	514	522

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.

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 GDP. 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 provide by businesses for their own use). In-house trucking accounted for \$142 billion in GDP in 1996 and for-hire trucking accounted for \$101 billion.

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: 1987-2002

(OUTPUT PER EMPLOYEE, INDEX, 1987 = 100)

Source: U.S. Department of Labor, Bureau of Labor Statistics, Industry Productivity, available at <http://www.bls.gov/> as of March 2004.

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 15, 2004.



Freight transportation is a major employer, with truck driving by far the largest freight transportation and freight transportation-related occupation in the United States. In 2002, there were approximately 2.9 million truck drivers, including driver/sales workers. Of these 2.9 million drivers about 53 percent drive heavy/tractor trailer trucks, 34 percent drive light/delivery service trucks, and about 13 percent are drivers/sales workers.

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

Occupation (SOC code)	1999	2001	2002
Vehicle operators, pipeline operators, and primary support			
Driver/sales worker (53-3031)	385,210	378,220	368,730
Truck drivers, heavy and tractor-trailer (53-3032)	1,558,400	1,548,480	1,520,880
Truck drivers, light or delivery services (53-3033)	1,085,050	996,000	977,920
Locomotive engineers (53-4011)	19,940	30,730	28,250
Rail yard engineers, dinkey operators, and hostlers (53-4013)	5,070	4,840	4,600
Railroad brake, signal, and switch operators (53-4021)	14,500	17,070	15,030
Railroad conductors and yardmasters (53-4031)	36,680	40,910	38,070
Sailors and marine oilers (53-5011)	27,200	28,650	25,360
Captains, mates, and pilots of water vessels (53-5021)	20,660	22,180	22,530
Ship engineers (53-5031)	6,800	7,470	8,020
Bridge and lock tenders (53-6011)	6,970	4,500	3,900
Gas compressor and gas pumping station operators (53-7071)	6,940	6,070	6,920
Pump operators, except wellhead pumpers (53-7072)	13,480	12,920	12,360
Transportation equipment manufacturing and maintenance occupations			
Bus and truck mechanics and diesel engine specialists (49-3031)	273,320	254,420	254,470
Rail car repairers (49-3043)	7,230	11,860	13,520
Transportation Infrastructure construction and maintenance occupations			
Rail-track laying and maintenance equipment operators (47-4061)	8,620	11,680	10,450
Signal and track switch repairers (49-9097)	3,720	8,550	7,990
Dredge operators (53-7031)	1,910	2,920	2,850
Secondary support service occupations			
Dispatchers, except police, fire, and ambulance (43-5032)	171,560	170,050	168,380
Postal service mail carriers (43-5052)	352,550	355,120	347,420
Shipping, receiving, and traffic clerks (43-5071)	886,230	802,600	792,470
Transportation inspectors (53-6051)	22,440	27,670	28,340
Tank car, truck, and ship loaders (53-7121)	20,830	19,430	16,960

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, 2002* (Washington, DC: November 2003), available at <http://www.bls.gov/oes> as of July 6, 2004.