

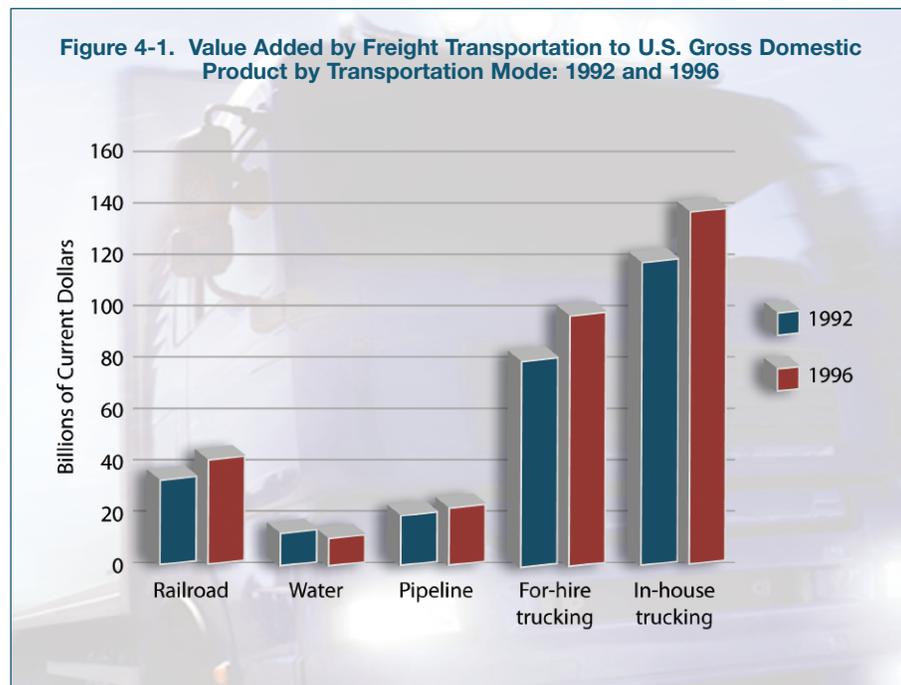
IV. THE FREIGHT TRANSPORTATION INDUSTRY

The private sector owns a significant share of assets in the transportation industry: \$1.02 trillion in equipment plus \$582.2 billion in private structures, compared to \$532.4 billion in transportation structures plus \$2.63 trillion in highways owned by public agencies.¹ Freight railroad facilities and services are almost entirely private, while trucks in the private sector operate over public highways, air-cargo services in the private sector operate in public airways and mostly public airports, and ships in the private sector serve public waterways and both public and private port facilities. Pipelines are mostly in the private sector, although significantly controlled by public regulation. In the public sector, virtually all truck routes are owned by state or local governments. Airports and harbors are typical-

ly owned by public authorities (although terminals are usually owned or managed by private operators). Air and water navigation is mostly federal, and safety is regulated by all levels of government.

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. Of this 5 percent, three-fifths is generated by for-hire transportation services, and the rest is generated by in-house transportation (transportation provided by businesses for their own use). Most in-house transportation is in-house trucking, which contributed 40 percent more value to GDP than for-hire trucking in 1996 (the latest year for which data are available).



¹Fixed assets are for 2007 and include both passenger and freight transportation. See the Bureau of Economic Analysis at www.bea.gov/national/FA2004/index.asp, tables 2.1, 3.1s, and 7.1b. In previous years, information on transportation structures owned by public agencies was reported as transportation equipment.

FIGURE 4-1. VALUE ADDED BY FREIGHT TRANSPORTATION TO U.S. GROSS DOMESTIC PRODUCT BY TRANSPORTATION MODE: 1992 AND 1996

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



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 one-half of those primarily engaged in trucking. Revenue generated by trucking accounts for about 40 percent of transportation and warehousing sector revenue while warehousing accounts for a small percentage of the total.

Table 4-1. Economic Characteristics of Transportation and Warehousing Establishments in Freight-Dominated Modes: 1997 and 2002

NAICS	Establishments		Revenue (millions of current \$)		Payroll (millions of current \$)		Paid Employees	
	1997	2002	1997	2002	1997	2002	1997	2002
Transportation and warehousing¹	178,025	199,618	318,245	382,152	82,346	115,989	2,920,777	3,650,859
Rail transportation	NA	NA	NA	NA	NA	NA	NA	NA
Water transportation	1,921	1,890	24,019	23,331	2,834	3,194	72,857	66,153
Truck transportation ¹	103,798	112,642	141,225	164,219	38,471	47,750	1,293,790	1,435,210
Pipeline transportation	2,311	2,188	26,837	22,031	2,661	2,477	49,280	36,790
Support activities for transportation	30,675	33,942	39,758	57,414	12,592	16,202	411,640	465,616
Couriers and messengers	10,887	12,655	39,812	58,165	14,072	17,175	530,839	561,514
Warehousing and storage ¹	6,497	12,671	10,658	16,548	2,926	17,183	109,760	565,533

Key: NA = not available; NAICS = North American Industry Classification System.

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.

Table 4-2. Economic Characteristics of Freight Railroads: 2000 and 2007

	Class I		Non-Class I		Total	
	2000	2007	2000	2007	2000	2007
Number of railroads	8	7	552	556	560	563
Freight revenue (billions of current dollars)	33	53	3	4	36	57
Operating revenue (billions of current dollars)	34	55	NA	NA	NA	NA
Employees	168,360	167,216	23,448	19,596	191,808	186,812

Key: NA = not available.

Revenue grew while employment declined in both the national (Class I) railroads and the regional and local railroads between 2000 and 2007.

TABLE 4-1. ECONOMIC CHARACTERISTICS OF TRANSPORTATION AND WAREHOUSING ESTABLISHMENTS IN FREIGHT-DOMINATED MODES: 1997 AND 2002

Sources: U.S. Department of Commerce, Census Bureau, *2002 Economic Census, Transportation and Warehousing, United States*, available at www.census.gov/econ/census02/data/us/US000_48.HTM as of March 30, 2009; U.S. Department of Commerce, Census Bureau, *1997 Economic Census, Transportation and Warehousing, United States*, available at www.census.gov/epcd/ec97/us/US000_48.HTM as of March 30, 2009.

TABLE 4-2. ECONOMIC CHARACTERISTICS OF FREIGHT RAILROADS: 2000 AND 2007

Source: Association of American Railroads, *Railroad Facts* (Washington, DC: annual issues), p. 3.

Productivity has improved in all modes, particularly railroads. Between 1987 and 2007, output-per-hour worked more than doubled in line-haul railroading but grew only 35 percent in long-distance, general-freight trucking. Line-haul railroads do not include switching and terminal operations or short-distance (or local) railroads. Long-distance, general-freight trucking establishments exclude local trucking and truck operators that require specialized equipment, such as flatbeds, tankers, or refrigerated trailers.

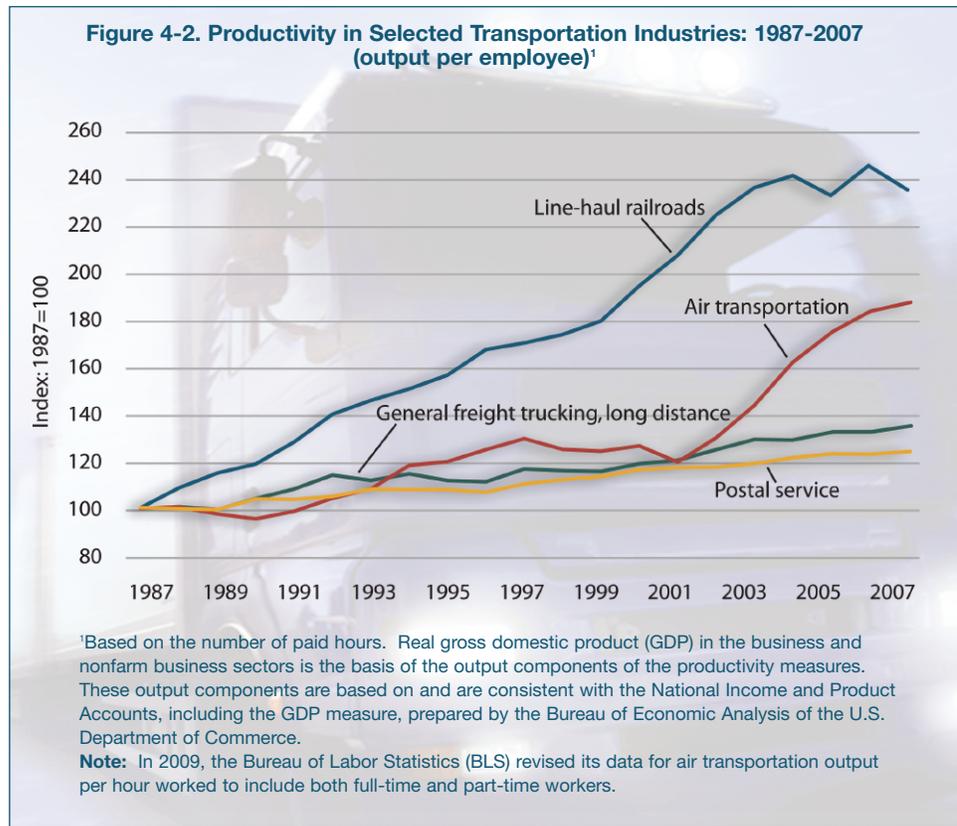


FIGURE 4-2. PRODUCTIVITY IN SELECTED TRANSPORTATION INDUSTRIES: 1987-2007
Source: U.S. Department of Labor, Bureau of Labor Statistics, Industry Productivity, available at www.bls.gov/lpc/ as of June 9, 2009.



Employment in many transportation industries has remained steady or has grown over the past two decades with the notable exception of railroads, which has declined by 56 percent between 1980 and 2008. Consequently, in 2008 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 2008 accounted for about 31 percent employment in transportation and warehousing.

Table 4-3. Employment in For-Hire Transportation Establishments Primarily Serving Freight: 1980-2008¹ (thousands)

	1980	1990	2000	2007	2008
Total U.S. labor force²	90,528	109,487	131,785	(R) 137,598	137,066
Transportation and warehousing	2,961	3,476	4,410	(R) 4,541	4,505
Rail transportation	518	272	232	234	230
Water transportation	NA	57	56	(R) 66	65
Truck transportation	NA	1,122	1,406	(R) 1,439	1,391
Pipeline transportation	NA	60	46	40	42
Support activities for transportation ³	NA	364	537	(R) 584	590
Couriers and messengers	NA	375	605	(R) 581	576
Warehousing and storage	NA	407	514	(R) 665	673

Key: NA = not available; R = revised.

¹Annual averages.

²Excludes farm employment.

³Industries in the Support Activities for Transportation subsector provide services which support transportation. These services may be provided to transportation carrier establishments or to the general public. This subsector includes a wide array of establishments, including air traffic control services, marine cargo handling, and motor vehicle towing.

Notes: 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.



TABLE 4-3. EMPLOYMENT IN FOR-HIRE TRANSPORTATION ESTABLISHMENTS PRIMARILY SERVING FREIGHT: 1980-2008

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics survey, available at www.bls.gov as of June 11, 2009.



Table 4-4. Employment in Selected Freight Transportation and Freight Transportation-Related Occupations: 2000-2008

Occupation (SOC code)	2000	2006	2007	2008
Vehicle operators, pipeline operators, and primary support				
Driver/sales worker (53-3031)	373,660	396,680	382,360	372,720
Truck drivers, heavy and tractor-trailer (53-3032)	1,577,070	1,673,950	1,693,590	1,672,580
Truck drivers, light or delivery services (53-3033)	1,033,220	941,590	922,900	908,960
Locomotive engineers (53-4011)	29,390	36,870	41,760	42,760
Rail yard engineers, dinkey operators, and hostlers (53-4013)	4,020	5,820	4,950	5,480
Railroad brake, signal, and switch operators (53-4021)	16,830	22,810	23,120	24,610
Railroad conductors and yardmasters (53-4031)	40,380	37,110	37,540	39,580
Sailors and marine oilers (53-5011)	30,090	31,690	32,520	32,420
Captains, mates, and pilots of water vessels (53-5021)	21,080	29,170	30,540	30,600
Ship engineers (53-5031)	7,370	14,190	13,710	11,190
Bridge and lock tenders (53-6011)	4,790	3,700	4,750	4,490
Gas compressor and gas pumping station operators (53-7071)	6,510	3,900	4,230	4,050
Pump operators, except wellhead pumpers (53-7072)	13,730	10,030	10,400	9,280
Transportation equipment manufacturing and maintenance occupations				
Bus and truck mechanics and diesel engine specialists (49-3031)	258,800	254,850	250,370	248,620
Rail car repairers (49-3043)	10,620	23,810	23,190	20,780
Transportation Infrastructure construction and maintenance occupations				
Rail-track laying and maintenance equipment operators (47-4061)	9,940	13,680	14,050	15,020
Signal and track switch repairers (49-9097)	5,540	5,980	6,090	6,570
Dredge operators (53-7031)	3,100	1,780	1,910	1,910
Secondary support service occupations				
Dispatchers, except police, fire, and ambulance (43-5032)	167,180	185,410	190,190	193,210
Postal service mail carriers (43-5052)	354,980	346,990	348,070	354,570
Shipping, receiving, and traffic clerks (43-5071)	864,530	763,350	755,790	760,950
Transportation inspectors (53-6051)	26,520	23,790	24,130	24,940
Tank car, truck, and ship loaders (53-7121)	17,480	15,360	14,870	12,330

Key: SOC = Standard Occupational Classification.

Freight transportation jobs are not limited to for-hire carriers. Truck driving is by far the largest freight transportation occupation in the United States, and many drivers work for retailers and other establishments with shipper-owned trucks. There were nearly 3 million truck drivers in 2008; about 56 percent of these professionals drive heavy/tractor trailer trucks, 31 percent drive light/delivery service trucks, and about 13 percent are driver/sales workers. Many industry analysts believe the number of truck drivers is below demand and driver shortages will worsen in the future.

TABLE 4-4. EMPLOYMENT IN SELECTED FREIGHT TRANSPORTATION AND FREIGHT TRANSPORTATION-RELATED OCCUPATIONS: 2000-2008

Source: U.S. Department of Labor, Bureau of Labor Statistics, *National Occupational Employment and Wages, 2008* (Washington, DC: May 2008), available at www.bls.gov/oes as of May 13, 2009.

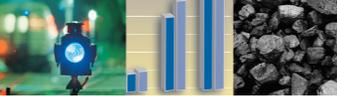


Table 4-5: Producer Price Indices for Selected Transportation Services: 1990-2007

	1990	2000	2002	2003	2004	2005	2006	2007
Air Transportation (NAICS 481)¹	NA	147.7	157.8	162.1	162.3	171.0	180.4	183.7
Scheduled Air Transportation (NAICS 4811) ²	110.2	180.1	193.3	198.5	198.6	209.3	220.5	224.5
Scheduled Freight Air Transportation (NAICS 481112)	NA	NA	NA	100.0	100.2	104.9	108.4	109.0
Nonscheduled Air Transportation (NAICS 4812) ³	NA	107.3	114.7	117.8	119.9	126.7	136.8	148.5
Rail Transportation (NAICS 482)³	NA	102.6	106.6	108.8	113.4	125.2	135.9	140.9
Line-Haul Railroads (NAICS 482111) ⁴	107.5	114.5	118.9	121.4	126.5	139.6	151.2	157.2
Water Transportation (NAICS 483)	NA	NA	NA	100.0	101.3	106.4	111.1	113.5
Deep Sea Freight Transportation (NAICS 483111) ⁵	113.1	155.8	185.8	219.9	225.9	231.9	233.3	230.0
Coastal and Great Lakes Freight Transportation (NAICS 483113)	NA	NA	NA	100.0	101.7	109.9	119.9	130.2
Inland Water Freight Transportation (NAICS 483211)	100.0	117.9	120.6	124.7	131.0	151.4	182.9	186.1
Truck Transportation (NAICS 484)	NA	NA	NA	100.0	103.1	109.0	113.2	115.4
General Freight Trucking (NAICS 4841)	NA	NA	NA	100.0	103.5	110.0	114.1	116.5
General Freight Trucking, Local (NAICS 48411)	NA	NA	NA	100.0	105.2	111.5	115.3	119.6
General Freight Trucking, Long Distance (NAICS 48412)	NA	NA	NA	100.0	103.2	109.7	113.8	115.9
Specialized Freight Trucking (NAICS 4842)	NA	NA	NA	100.0	102.3	107.0	111.4	113.1
Used Household and Office Goods Moving (NAICS 48421)	NA	NA	NA	100.0	102.6	106.0	107.8	108.8
Specialized Freight (except Used Goods) Trucking, Local (NAICS 48422)	NA	NA	NA	100.0	102.7	107.1	112.3	114.2
Specialized Freight (except Used Goods) Trucking, Long Distance (NAICS 48423)	NA	NA	NA	100.0	101.7	107.5	112.8	114.8
Pipeline Transportation (NAICS 486)	NA							
Pipeline Transportation of Crude Oil (NAICS 4861)	NA	NA	NA	100.0	103.9	113.3	112.0	125.4
Other Pipeline Transportation (NAICS 4869) ⁶	NA	NA	NA	100.0	101.4	105.2	108.2	115.0
Support Activities for Transportation (NAICS 488)	NA	NA	NA	100.0	101.1	104.1	106.5	108.5
Support Activities for Water Transportation (NAICS 4883) ⁷	NA	NA	NA	100.0	101.0	103.5	107.7	112.7
Navigational Services to Shipping (NAICS 48833)	NA	NA	NA	100.0	101.5	105.7	113.9	120.6
Freight Transportation Arrangement (NAICS 4885) ³	NA	98.3	97.5	97.9	98.9	99.1	98.8	100.2
Postal Service (NAICS 491)	100.0	135.2	150.2	155.0	155.0	155.0	164.7	171.9
Couriers and Messengers (NAICS 492)	NA	NA	NA	100.0	106.1	113.8	121.5	131.5

Key: NA = not available; NAICS = North American Industry Classification System.

Notes: Index values start at 100.0 in 1990 unless another year is specified. This table shows annual data, which are calculated by the Bureau of Labor Statistics by averaging monthly indices. Data are reported monthly from January to December. The monthly indices, however, are available for fewer than 12 months for some years. In both cases, a simple average of the available monthly indices is reported for each year. Data are not seasonally adjusted.

¹Base year = 1992.

²Base year = 1989.

³Base year = 1996.

⁴Base year = 1984.

⁵Base year = 1988.

⁶Other pipeline transportation includes pipeline transportation of refined petroleum products (NAICS 48691).

⁷Support activities for water transportation includes port and harbor operations (NAICS 48831), marine cargo handling (NAICS 48832), and navigational services to shipping (NAICS 48833).

The prices charged for transportation purchased from carriers and support activities has gone up in most industries. Rail prices increased by about 4 percent from 2006 to 2007, while trucking and air increased by about 2 percent each.



TABLE 4-5: PRODUCER PRICE INDICES FOR SELECTED TRANSPORTATION SERVICES: 1990-2007

Source: U.S. Department of Labor, Bureau of Labor Statistics, Producer Price Index Industry Data, available at www.bls.gov/data/sa.htm as of June 9, 2009.