

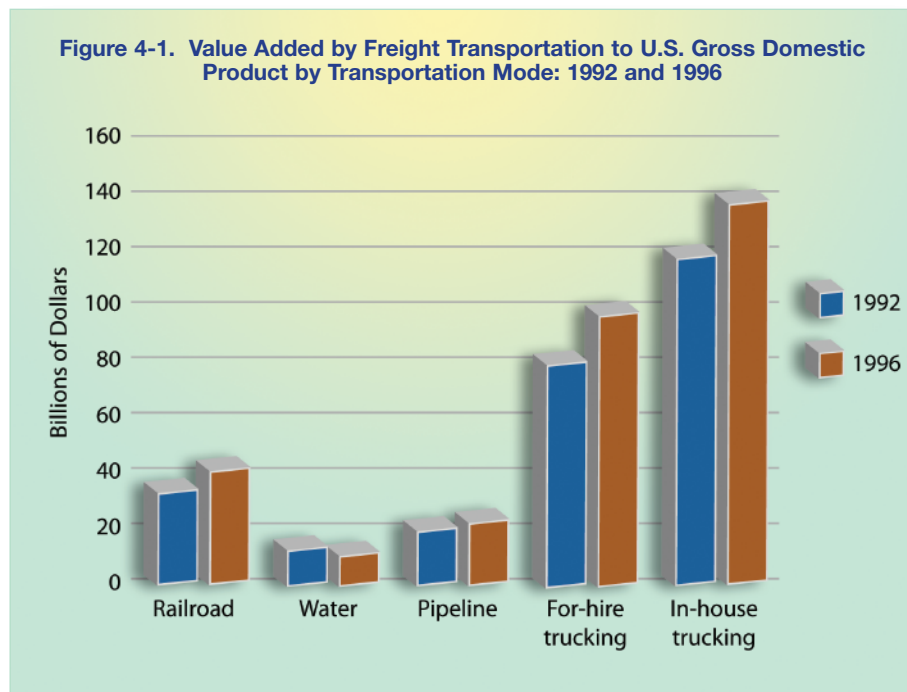
IV. THE FREIGHT TRANSPORTATION INDUSTRY

The private sector owns a significant share of assets in the transportation industry: \$984.7 billion in equipment plus \$557.5 billion in private structures, compared to \$485.7 billion in transportation equipment plus \$2.36 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 operate in 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

typically 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 2006 and include both passenger and freight transportation. See the Bureau of Economic Analysis at www.bea.gov/bea/dn/FA2004/.

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

	Establishments		Revenue (Current \$ thousands)		Payroll (Current \$ thousands)		Paid Employees	
	1997	2002	1997	2002	1997	2002	1997	2002
Transportation and warehousing¹	178,025	199,618	318,245,044	382,152,040	82,346,182	115,988,733	2,920,777	3,650,859
Rail transportation	NA	NA	NA	NA	NA	NA	NA	NA
Water transportation	1,921	1,890	24,019,168	23,331,333	2,834,114	3,194,391	72,857	66,153
Truck transportation ¹	103,798	112,642	141,225,398	164,218,769	38,471,272	47,750,111	1,293,790	1,435,210
Pipeline transportation	2,311	2,188	26,836,992	22,031,419	2,660,576	2,476,638	49,280	36,790
Support activities for transportation	30,675	33,942	39,758,245	57,414,131	12,592,441	16,202,043	411,640	465,616
Couriers and messengers	10,887	12,655	39,812,433	58,164,869	14,071,630	17,175,401	530,839	561,514
Warehousing and storage ¹	6,497	12,671	10,657,925	16,547,657	2,926,119	17,183,289	109,760	565,533

Key: NA = not available.

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 2006

	Class I		Non-Class I		Total	
	2000	2006	2000	2006	2000	2006
Number of railroads	8	7	552	552	560	559
Freight revenue (billions \$)	33.1	50.3	3.2	3.7	36.3	54.0
Operating revenue (billions \$)	34.1	52.2	NA	NA	NA	NA
Employees	168,360	167,581	23,448	19,376	191,808	186,957

Key: NA = not available.

Revenue grew while employment declined in both the national (Class I) railroads and the regional and local railroads during the first half of the decade.

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 April 24, 2008; 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 April 24, 2008.

TABLE 4-2. ECONOMIC CHARACTERISTICS OF FREIGHT RAILROADS: 2000 AND 2006

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

Productivity has improved in all modes, particularly railroads. Between 1987 and 2006, output-per-hour worked more than doubled in line-haul railroading but grew only 37 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.

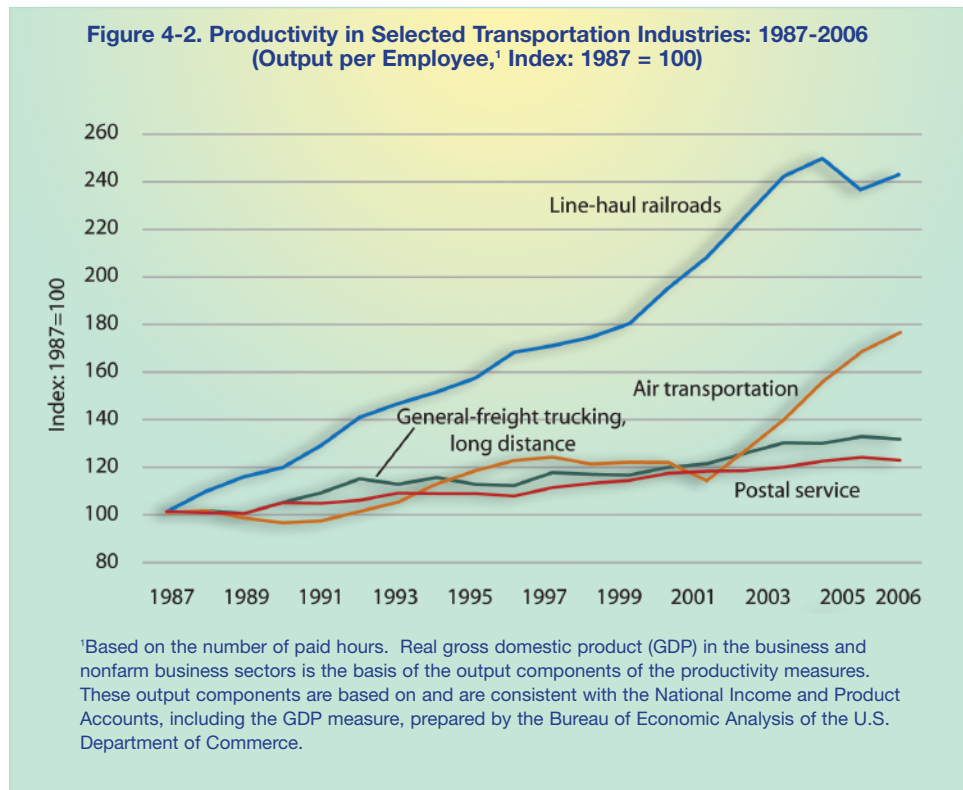
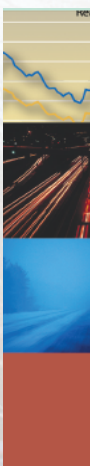


FIGURE 4-2. PRODUCTIVITY IN SELECTED TRANSPORTATION INDUSTRIES: 1987-2006
Source: U.S. Department of Labor, Bureau of Labor Statistics, Industry Productivity, available at www.bls.gov/lpc/ as of May 22, 2008.



Employment in many transportation industries has remained steady or has grown over the past two decades with the notable exception of railroads. While the long-term trend may have reversed in recent months, rail employment declined by 55 percent between 1980 and 2007. Consequently, in 2007 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 2007 accounted for about one-third of employment in transportation and warehousing.

Table 4-3. Employment in For-Hire Transportation Establishments Primarily Serving Freight: 1980-2007¹ (thousands)

	1980	1990	2000	2006	2007
Total U.S. labor force²	90,528	109,487	131,785	(R) 136,086	137,623
Transportation and warehousing	2,961	3,476	4,410	(R) 4,470	4,536
Rail transportation	518	272	232	(R) 228	234
Water transportation	NA	57	56	(R) 63	64
Truck transportation	NA	1,122	1,406	(R) 1,436	1,441
Pipeline transportation	NA	60	46	39	40
Support activities for transportation ³	NA	364	537	571	583
Couriers and messengers	NA	375	605	(R) 582	583
Warehousing and storage	NA	407	514	(R) 638	659

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: 1980-2007

Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics survey, available at www.bls.gov as of May 23, 2008.

Table 4-4. Employment in Selected Freight Transportation and Freight Transportation-Related Occupations: 2000-2007

Occupation (SOC code)	2000	2005	2006	2007
Vehicle operators, pipeline operators, and primary support				
Driver/sales worker (53-3031)	373,660	400,530	396,680	382,360
Truck drivers, heavy and tractor-trailer (53-3032)	1,577,070	1,624,740	1,673,950	1,693,590
Truck drivers, light or delivery services (53-3033)	1,033,220	938,280	941,590	922,900
Locomotive engineers (53-4011)	29,390	37,390	36,870	41,760
Rail yard engineers, dinkey operators, and hostlers (53-4013)	4,020	6,970	5,820	4,950
Railroad brake, signal, and switch operators (53-4021)	16,830	20,700	22,810	23,120
Railroad conductors and yardmasters (53-4031)	40,380	38,330	37,110	37,540
Sailors and marine oilers (53-5011)	30,090	31,090	31,690	32,520
Captains, mates, and pilots of water vessels (53-5021)	21,080	28,570	29,170	30,540
Ship engineers (53-5031)	7,370	13,240	14,190	13,710
Bridge and lock tenders (53-6011)	4,790	3,620	3,700	4,750
Gas compressor and gas pumping station operators (53-7071)	6,510	3,950	3,900	4,230
Pump operators, except wellhead pumpers (53-7072)	13,730	9,970	10,030	10,400
Transportation equipment manufacturing and maintenance occupations				
Bus and truck mechanics and diesel engine specialists (49-3031)	258,800	248,280	254,850	250,370
Rail car repairers (49-3043)	10,620	24,270	23,810	23,190
Transportation infrastructure construction and maintenance occupations				
Rail-track laying and maintenance equipment operators (47-4061)	9,940	13,510	13,680	14,050
Signal and track switch repairers (49-9097)	5,540	6,100	5,980	6,090
Dredge operators (53-7031)	3,100	1,720	1,780	1,910
Secondary support service occupations				
Dispatchers, except police, fire, and ambulance (43-5032)	167,180	172,550	185,410	190,190
Postal service mail carriers (43-5052)	354,980	347,180	346,990	348,070
Shipping, receiving, and traffic clerks (43-5071)	864,530	759,910	763,350	755,790
Transportation inspectors (53-6051)	26,520	25,570	23,790	24,130
Tank car, truck, and ship loaders (53-7121)	17,480	15,950	15,360	14,870

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 more than 3 million truck drivers in 2007; about 56 percent of these professionals drive tractor-trailer trucks, 31 percent drive lighter 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: 2000-2007

Source: U.S. Department of Labor, Bureau of Labor Statistics, *National Occupational Employment and Wages, 2007*

(Washington, DC: May 2007), available at www.bls.gov/oes as of May 22, 2008.

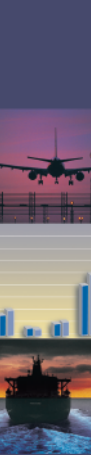


Table 4-5: Producer Price Indices for Selected Transportation Services: 1990-2006
(North American Industry Classification System [NAICS] basis)

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

Key: NA = not available.

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 have gone up in most industries. Rail and air prices increased about 10 percent from 2005 to 2006, while trucking increased about 4 percent.

TABLE 4-5: PRODUCER PRICE INDICES FOR SELECTED TRANSPORTATION SERVICES: 1990-2006

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 10, 2008.