



U.S. Water Transportation Statistical Snapshot



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May 2007

U.S. Water Transportation Statistical Snapshot

**Office of
Policy and Plans**

**Office of
Congressional and Public Affairs**

Maritime Administration

**U.S. Department of
Transportation**



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It is the mission of the Maritime Administration to strengthen the U.S. water transportation system, including infrastructure, industry, and labor, to meet the economic and security needs of the Nation.

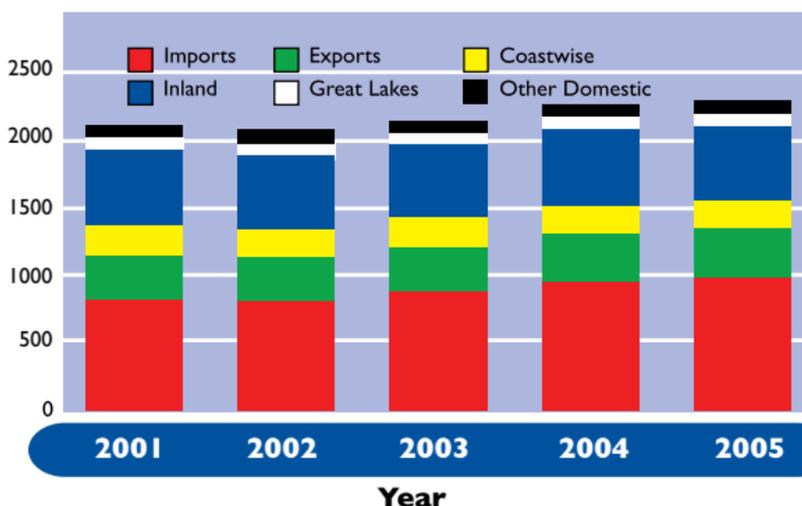
The U.S. water transportation industry serves the needs of both foreign and domestic commerce. It comprises companies that carry freight or passengers on the open seas or inland waterways, offer towing services, charter vessels, and operate canals and terminals.

The U.S. water transportation industry is in a period of renewal and expansion with major changes in trades, fleets, gross output and employment. The following snapshot highlights the major changes that have occurred over the last five years.

In 2005, U.S. waterborne commerce amounted to 2.3 billion metric tons. Foreign commerce accounted for 59 percent of the total, up from 55 percent five years earlier. The change in composition was due largely to a 12 percent rise in tanker imports and a 14 percent decline in coastwise tanker trades—import substitution in U.S. tanker trades.

U.S. Waterborne Trades, 2001-2005

(Million Metric Tons)



U.S. Waterborne Trades, 2001-2005

(Million Metric Tons)

Trade	2001	2002	2003	2004	2005	% Ch. 2001-05
Foreign	1,157.5	1,131.3	1,209.6	1,305.7	1,348.8	16.5
Imports	830.1	813.9	879.9	954.6	995.2	19.9
Exports	327.4	317.4	329.7	351.1	353.6	8.0
Domestic	945.7	926.3	921.9	949.9	933.4	-1.3
Coastwise	202.8	196.3	202.8	200.1	193.8	-4.4
Inland	562.3	551.6	553.0	568.1	566.1	0.7
Lakes	90.7	92.1	81.5	93.9	87.3	-3.7
Other	89.9	86.3	84.6	87.8	86.2	-4.1
Total	2,103.2	2,057.6	2,131.5	2,255.6	2,282.2	8.5

Note: Other includes intra-port and intra-U.S. territory trades.

Sources: Foreign—U.S. Bureau of Census, Foreign Trade Division.

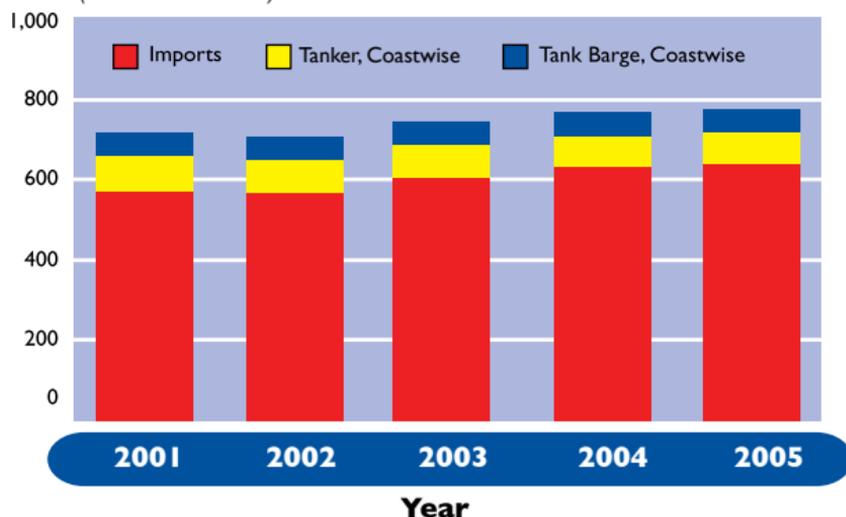
Detailed data available at www.census.gov/foreign-trade. Domestic—U.S. Army Corps of Engineers, Waterborne Commerce of the United States. Detailed data available at www.usace.army.mil/ndc.

Trade Indicators

Coastwise tanker trades declined by 14 percent due largely to a decline in Alaskan crude oil production which is moved by tankers from the Trans-Alaskan Pipeline terminal in Valdez to the U.S. West Coast.

U.S. Tank Vessel Trades, 2001-2005

(Million Metric Tons)



U.S. Tank Vessel Trades, 2001-2005

(Million Metric Tons)

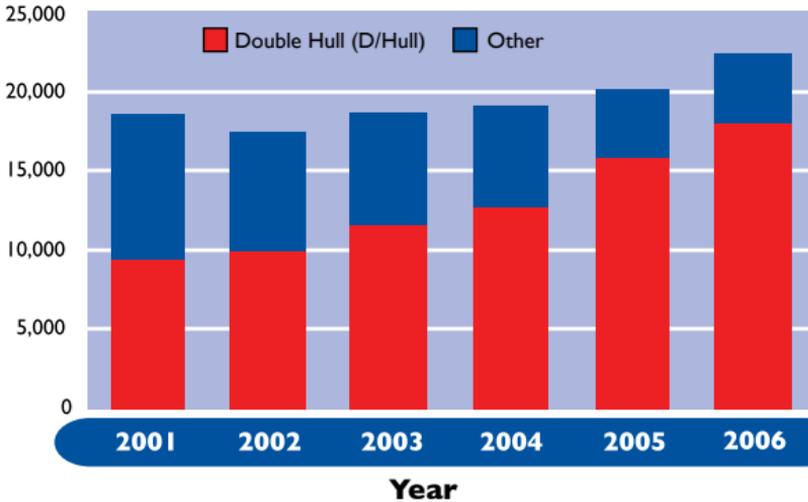
Trade	2001	2002	2003	2004	2005	% Ch. 2001-05
Coastwise						
Tanker	85.1	80.3	81.3	78.8	73.1	-14.1
Tank Barge	56.3	55.7	55.7	56.4	54.9	-2.5
Imports	572.8	568.9	604.5	630.1	643.2	12.3
AK Crude						
Oil Prod. (mil.Bbls.)	351	359	356	332	315	-10.3

Note: Tank Barge includes articulated tug/barge units.

Sources: Trade—U.S. Army Corps of Engineers, Waterborne Commerce of the United States. Detailed data available at www.usace.army.mil/ndc. Alaskan (AK) production—Energy Information Agency, Petroleum Supply Annual. Detailed data available at www.eia.doe.gov.

In 2006, 80 percent of the tanker calls at U.S. ports were by double-hull tankers, up from 52 percent five years earlier. Given the large global orders for double-hull tank vessels (36 percent of existing fleet); the fleet serving U.S. trades should be virtually all double-hull in 2-3 years.

Tanker Calls at U.S. Ports, 2001-2006



Tanker Calls at U.S. Ports, 2001-2006

Trade	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
D/Hull	9,568	10,045	11,903	12,925	15,802	18,077	88.9
Other	8,819	7,275	6,600	6,391	4,316	4,501	-49.0
Total	18,387	17,320	18,503	19,316	20,118	22,578	22.8

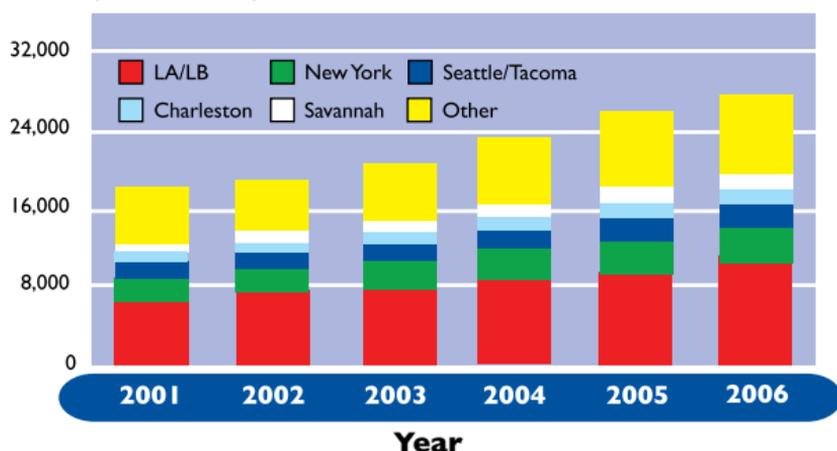
Note: Tankers of 10,000 DWT or greater.

Source: Maritime Administration, Vessel Calls at U.S. and World Ports. Detailed data available at www.marad.dot.gov/marad_statistics.

Trade Indicators

U.S. international container trades increased by 52 percent over the last five years. In 2006, the top ten ports accounted for over 90 percent of U.S. international container trade.

U.S. International Container Trades by Port, 2001-2006
(Thousand TEU's)



U.S. International Container Trades by Port, 2001-2006
(Thousand TEU's)

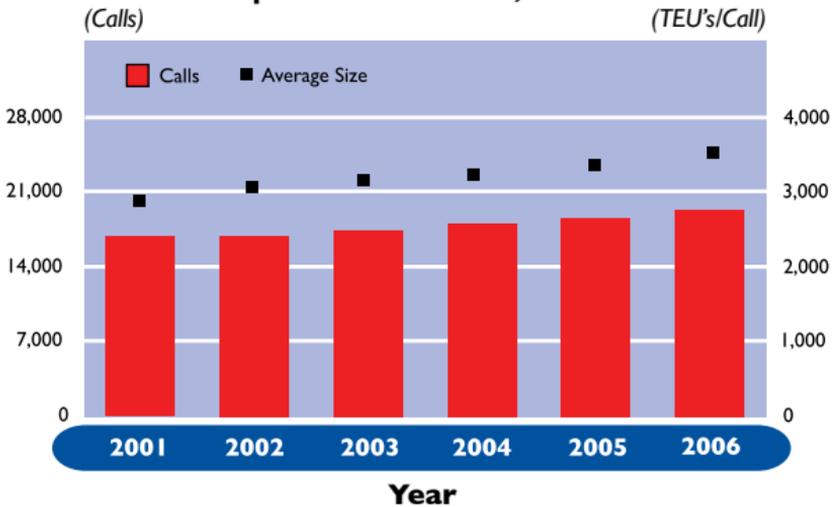
Port	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
LA/LB	6,624	7,243	7,755	8,639	9,242	10,390	56.9
New York	2,355	2,627	2,803	3,163	3,387	3,629	54.1
Seattle/Tacoma	1,436	1,619	1,746	1,990	2,494	2,304	60.4
Savannah	813	1,014	1,124	1,290	1,469	1,581	94.5
Charleston	1,159	1,197	1,250	1,421	1,509	1,493	28.8
Norfolk	885	982	1,093	1,206	1,319	1,410	59.3
Oakland	963	979	1,064	1,197	1,374	1,400	45.4
Houston	783	851	933	1,098	1,222	1,268	61.9
Miami	717	752	764	795	772	743	3.6
Port Everglades	417	370	423	500	578	634	52.0
Top 5	12,537	13,700	14,678	16,503	18,101	19,397	56.6
Top 10	16,152	17,634	18,955	21,299	23,366	24,852	53.9
Total	18,117	19,729	21,289	23,851	25,868	27,473	51.6

Note: TEU is a unit equivalent to a 20' x 8' x 8' shipping container.

Source: Port Import/Export Reporting System (PIERS). Detailed data available at www.piers.com.

Over the last five years, containership calls at U.S. ports increased by 14 percent, while the average size of containerships increased by 25 percent. Calls by ships of 5,000 TEU or greater, which are largely post-panamax class (can not transit the Panama Canal), increased by 241 percent.

Containership Calls at U.S. Ports, 2001-2006



Containership Calls at U.S. Ports, 2001-2006

Vessel Size, TEU's	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
<1,000	657	566	626	443	394	330	-49.8
1,000-1,999	4,975	4,097	3,492	3,463	3,600	3,800	-23.6
2,000-2,999	4,434	4,032	4,032	4,470	4,330	3,881	-12.5
3,000-3,999	3,464	4,129	4,050	3,959	3,704	3,404	-1.7
4,000-4,999	2,574	3,186	3,945	4,210	4,226	4,782	85.8
>4,999	972	1,128	1,142	1,734	2,288	3,312	240.7
Total	17,076	17,138	17,287	18,279	18,542	19,509	14.2
TEU's/Call	2,801	3,020	3,144	3,241	3,321	3,505	25.1

Note: TEU is a unit equivalent to a 20' x 8' x 8' shipping container. Panamax refers to the maximum dimensions of a vessel that can pass through the locks of the Panama Canal: length—965 feet, beam—106 feet, and draft—39.5 feet.

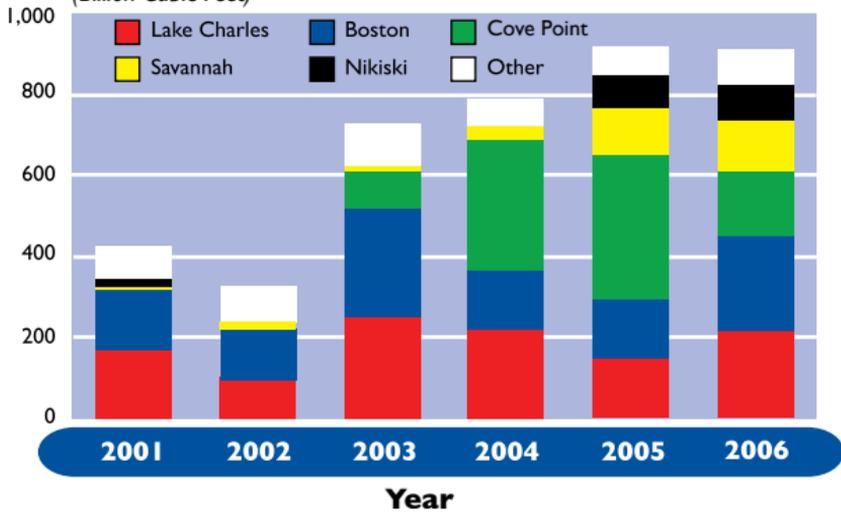
Source: Maritime Administration, Vessel Calls at U.S. and World Ports. Detailed data available at www.marad.dot.gov/marad_statistics.

Trade Indicators

Liquefied natural gas (LNG) carrier capacity calling at U.S. ports increased by 115 percent over the last five years. In 2006, five ports accounted for 90 percent of the capacity calling at the U.S.

LNG Vessel Capacity Calling at U.S. Ports, 2001-2006

(Billion Cubic Feet)



LNG Vessel Capacity Calling at U.S. Ports, 2001-2006

(Billion Cubic Feet)

Port	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
Lake Charles	167.9	93.3	251.0	220.3	149.6	213.5	27.2
Boston	150.0	126.3	268.2	144.3	148.1	240.1	60.1
Cove Point	0.0	0.0	96.1	326.6	353.8	157.2	N/A
Savannah	4.5	18.2	12.4	31.8	119.8	126.0	2,700.0
Nikiski	22.2	3.2	0.0	0.0	82.5	88.9	300.5
Top 5	344.6	241.0	627.7	723.0	853.8	825.7	139.6
Other	81.7	89.6	100.6	67.7	67.4	89.6	9.7
Total	426.3	330.6	728.3	790.7	921.2	915.3	114.7

Source: Maritime Administration, Vessel Calls at U.S. and World Ports. Detailed data available at www.marad.dot.gov/marad_statistics.

Trade Indicators

The top five departure ports for cruise passengers accounted for 56 percent of the North American departures during 2006, down from 62 percent three years earlier. Cruise lines have been expanding the number of home ports for their fleets, reducing congestion, and eliminating air fares to major cruise ports.

North America Cruise Passengers by Departure Port 2003-2006 (Thousands)

Port	2003	2004	2005	2006	% Ch. 2003-06
Miami	1,867	1,683	1,771	1,890	1.2
Port Canaveral	1,114	1,230	1,234	1,396	25.3
Fort Lauderdale	1,100	1,237	1,199	1,145	4.1
Galveston	377	433	531	616	63.4
Los Angeles	516	434	615	583	13.0
San Juan	579	677	581	555	-4.1
New York	432	548	370	536	24.1
Tampa	419	399	408	461	10.0
Vancouver, CA	466	436	434	402	-13.7
Seattle	165	291	337	382	131.5
Long Beach	171	401	363	380	122.2
Honolulu	173	170	236	316	82.7
San Diego	93	173	234	180	93.5
Jacksonville	6	114	137	128	2,033.3
Cape Liberty	0	0	147	123	N/A
Whittier	0	88	96	109	N/A
Mobile	0	29	88	99	N/A
San Francisco	52	85	89	91	75.0
New Orleans	297	396	309	75	-74.7
Seward	152	75	68	69	-54.3
Boston	69	73	80	62	-10.1
Baltimore	57	105	67	60	5.3
Houston	13	91	99	60	361.5
Philadelphia	25	30	50	52	108.0
Charleston	32	39	41	47	46.9
Norfolk	15	48	45	25	66.7
Gulfport	58	3	0	0	-100.0
Other Ports	101	130	118	128	26.7
Total	8,349	9,418	9,747	9,970	19.4

Source: Maritime Administration, North American Cruise Statistics.
Detailed data available at www.marad.dot.gov/marad_statistics.

Fleet Indicators

As of year-end 2006, there were about 40,000 U.S. privately-owned vessels available for operation in U.S. foreign and domestic trades. Over the last five years, the largest growth has been in the offshore supply vessel (serving offshore oil exploration) and double-hull tank vessel fleets.

U.S. Privately-Owned Fleets, 2001-2006

(Vessels)

Fleet	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
Ocean	688	634	651	665	688	680	-1.2
Tanker	286	271	287	290	275	272	-4.9
DH	131	138	173	187	193	202	54.2
Dry Bulk	198	174	163	175	201	210	6.1
Lakers	52	51	50	49	48	47	-9.6
Container	84	80	82	85	86	83	-1.2
Ro-Ro	54	53	54	53	58	55	1.9
Gas	16	17	17	17	18	17	6.3
Combo	13	13	15	11	12	4	-69.2
General	37	26	33	34	38	39	5.4
Offshore Supply	465	479	490	518	532	629	35.3
Coastal & Waterways	38,739	38,124	37,082	37,209	37,936	38,842	0.3
Tugs	5,150	5,180	5,172	5,314	5,290	5,555	7.9
Dry Barges	28,888	28,281	27,272	27,197	27,876	28,291	-.21
Tank Barges	4,122	4,068	4,031	4,069	4,151	4,376	6.2
DH	2,717	2,820	2,809	2,895	3,014	3,403	25.2
Ferries	579	595	607	629	619	620	7.1
Total	39,892	39,237	38,223	38,392	39,156	40,151	0.6

Notes: DH – double-hull. Ocean – Vessels of 10,000 DWT or greater.

Sources: Ocean and Offshore—Clarkson Research Service, Vessel Registers. Detailed data available at www.clarkson.net. Coastal and Waterways—U.S. Army Corps of Engineers, Vessel Detail Files. Detailed data available at www.usace.army.mil/ndc.

The U.S. offshore fleet is the youngest of the major segments with 40 percent built over the last ten years. The coastal and waterways fleet is the oldest with only 25 percent built since 1997.

Age Profile of U.S. Privately-Owned Fleets

(Vessels)

Fleet	Year Built					
	Before 1982	1982-1986	1987-1991	1992-1996	1997-2001	2002-2006
Ocean	189	122	52	79	124	114
Tanker	37	30	20	45	63	77
DH	9	9	4	40	63	77
Dry Bulk	75	45	11	13	45	21
Lakers	47	0	0	0	0	0
Container	21	16	16	12	9	9
Ro-Ro	20	16	3	5	6	5
Gas	12	0	0	2	1	2
Combo	3	1	0	0	0	0
General	21	1	2	2	0	0
Offshore Supply	241	109	14	12	138	115
Coastal & Waterways	19,509	2,227	2,878	4,267	6,528	3,433
Tugs	4,216	401	153	197	363	225
Dry Barges	12,498	1,637	2,462	3,585	5,611	2,498
Tank Barges	2,523	131	174	419	476	653
DH	1,635	77	156	406	476	653
Ferries	272	58	89	66	78	57
Total	19,939	2,458	2,944	4,358	6,790	3,662

Notes: DH – double-hull. Ocean – Vessels of 10,000 DWT or greater.

Sources: Ocean and Offshore—Clarkson Research Service, Vessel Registers. Detailed data available at www.clarkson.net.

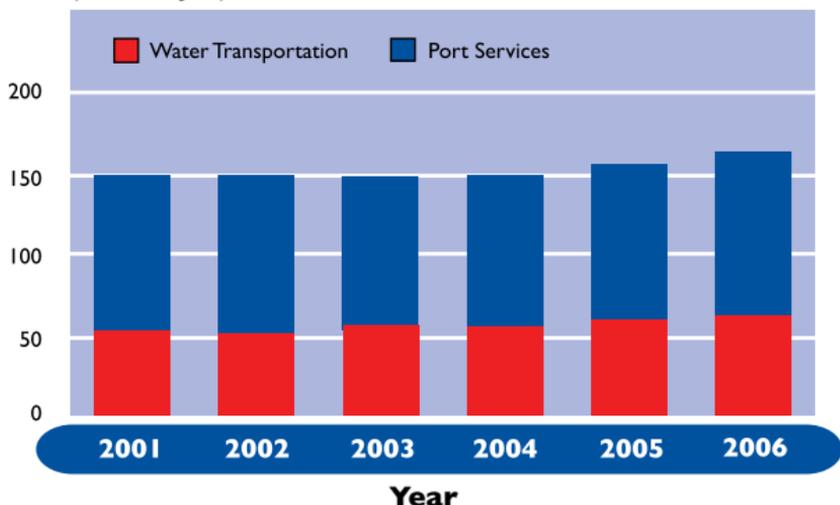
Coastal and Waterways—U.S. Army Corps of Engineers, Vessel Detail Files. Detailed data available at www.usace.army.mil/ndc.

Macroeconomic Indicators

Since 2001, about 15,500 jobs have been added in the water transportation and port service industries. In 2006, port services accounted for about 60 percent of the combined employment.

Employment in Water Transportation and Port Services, 2001-2006

(Thousand Jobs)



Employment in Water Transportation and Port Services 2001-2006

(Thousand Jobs)

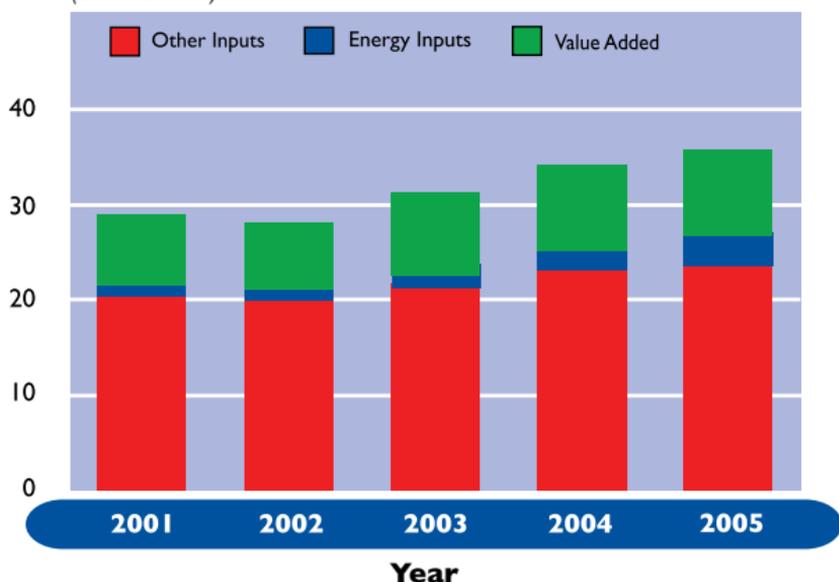
Segment	2001	2002	2003	2004	2005	2006	% Ch. 2001-06
Transportation	54.0	52.6	54.5	56.4	60.6	64.1	18.7
Ocean, Coastal and Lakes	34.3	32.3	33.7	35.2	37.3	40.7	18.7
Inland	19.7	20.3	20.8	21.2	23.3	23.4	18.8
Port Services	94.5	95.2	93.8	91.5	93.9	99.9	5.7
Cargo Handling	39.6	39.6	40.8	40.8	42.8	46.3	16.9
Other	54.9	55.6	53.0	50.7	51.1	53.6	-2.4
Total	148.5	147.8	148.3	147.9	157.3	164.0	10.4

Sources: U.S. Bureau of Labor Statistics, Current Employment Statistics Survey, Detailed Data Files. Detailed data available at www.bls.gov.

From 2001 to 2005, value added (gross output less the cost of intermediate inputs) for water transportation increased by 22 percent, despite a 233 percent increase in the cost of energy inputs.

Water Transportation Gross Output, 2001-2005

(Billion Dollars)



Water Transportation Gross Output, 2001-2005

(Billion Dollars)

Components	2001	2002	2003	2004	2005	% Ch. 2001-05
Gross Output	28.8	28.1	31.3	34.2	35.8	24.3
Value Added	7.4	7.0	8.7	9.0	9.0	21.6
Labor	3.6	3.8	3.8	4.2	4.5	25.0
Intermediate Inputs	21.4	21.1	22.6	25.2	26.7	24.8
Energy	0.9	1.1	1.5	2.2	3.0	233.3
Other	20.5	20.0	21.1	23.0	23.7	15.6
Energy/Gross Output %	3.1	3.9	4.8	6.4	8.4	171.0

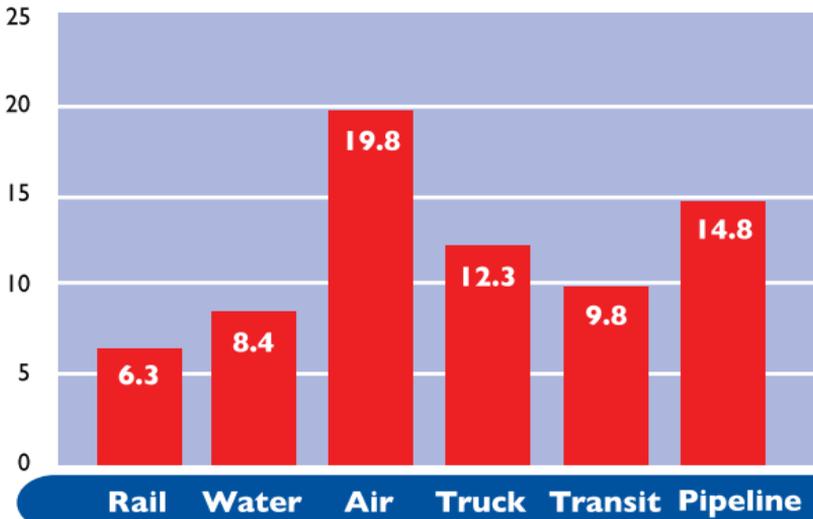
Note: Gross Output is the market value of goods and services produced by labor and property in the United States. Value added is a measure of the contribution of each private industry and of government to the nation's GDP. It is defined as gross output minus intermediate inputs.

Source: U.S. Bureau of Economic Analysis, Gross Domestic Product by Industry Accounts. Detailed data available at www.bea.gov.

Macroeconomic Indicators

Water transportation ranks second among modes in energy efficiency (energy costs per dollar of gross output).

Energy Inputs as a Percent of Gross Output by Mode, 2005



Note: Gross Output is the market value of goods and services produced by labor and property in the United States.

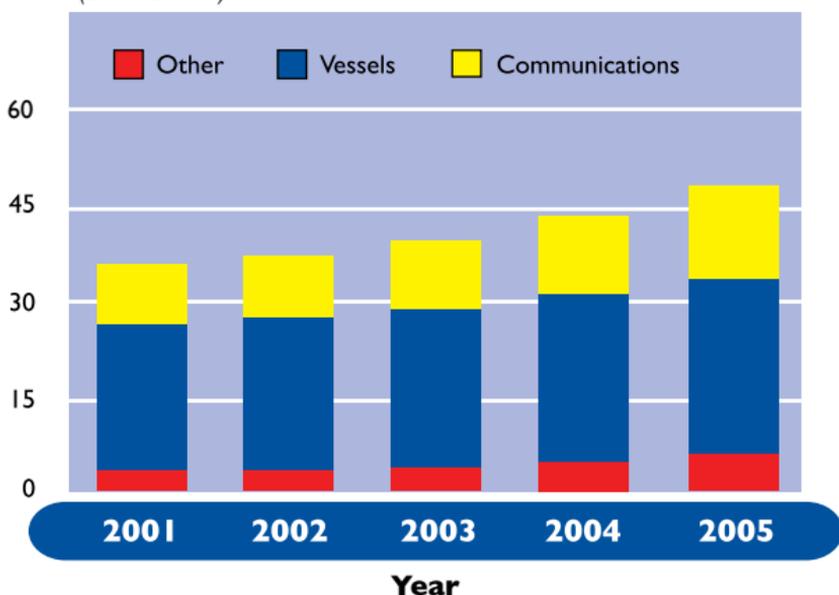
Source: U.S. Bureau of Economic Analysis, Gross Domestic Product by Industry Accounts. Detailed data available at www.bea.gov.

Macroeconomic Indicators

From 2001 to 2005, water transportation fixed assets increased by 35 percent. Vessel assets increased by 25 percent, the highest 5 year growth in 25 years.

Water Transportation Fixed Assets, 2001-2005

(Billion Dollars)



Water Transportation Fixed Assets, 2001-2005

(Billion Dollars)

Type	2001	2002	2003	2004	2005	% Ch. 2001-05
Communications	9.4	10.2	10.9	12.8	14.9	58.5
Vessels	22.2	23.4	24.6	26.1	27.8	25.2
Other	4.0	4.1	4.2	4.8	5.4	35.0
Total	35.6	37.6	39.7	43.7	48.0	34.8

Note: Fixed Assets are produced assets that are used repeatedly or continuously in the process of production for an extended period of time. They include equipment, software, and structures.

Source: U.S. Bureau of Economic Analysis, Fixed Asset Accounts. Detailed data available at www.bea.gov.

Glossary

Coastwise – Domestic traffic receiving a carriage over the ocean, or the Gulf of Mexico, and traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean.

Fixed assets – Produced assets that are used repeatedly or continuously in the process of production of goods and/or services for an extended period of time.

Foreign trade – Waterborne import, export and in-transit traffic between the United States, Puerto Rico and the Virgin Islands and any foreign country.

Gross output – The market value of goods and services produced by labor and property in the United States.

Inland – Vessel movements (origin and destination) which take place solely on inland waterways. An inland waterway is one geographically located within the boundaries of the contiguous 48 states or within the boundaries of the State of Alaska. It also includes vessel movements on both inland waterways and the Great Lakes; those occurring between offshore areas and inland waterways (e.g., oil rig supplies and fish); and those taking place within Delaware Bay, Chesapeake Bay, Puget Sound, and the San Francisco Bay, which are considered internal bodies of water rather than arms of the ocean.

Lakes – Waterborne traffic between United States ports on the Great Lakes System.

Post Panamax – The maximum dimensions (feet) allowed for a ship transiting Panama Canal locks:

Length	965
Beam	106
Draft	39.5

TEU (Twenty-Foot Equivalent Unit) – A nominal unit of measure equivalent to a 20' x 8' x 8' shipping container.

Glossary

Trans Alaska Pipeline – An 800-mile long Pipeline System that stretches from Prudhoe Bay on Alaska's North Slope, to Valdez, the northernmost ice-free port in North America.

Value Added – A measure of the contribution of each private industry and of government to the nation's gross domestic product. It is defined as gross output minus intermediate inputs.

Notes

Statistics published in this *U.S. Waterborne Statistical Snapshot* come from many different sources. Some statistics may be subject to omissions and errors in reporting, recording and processing.

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