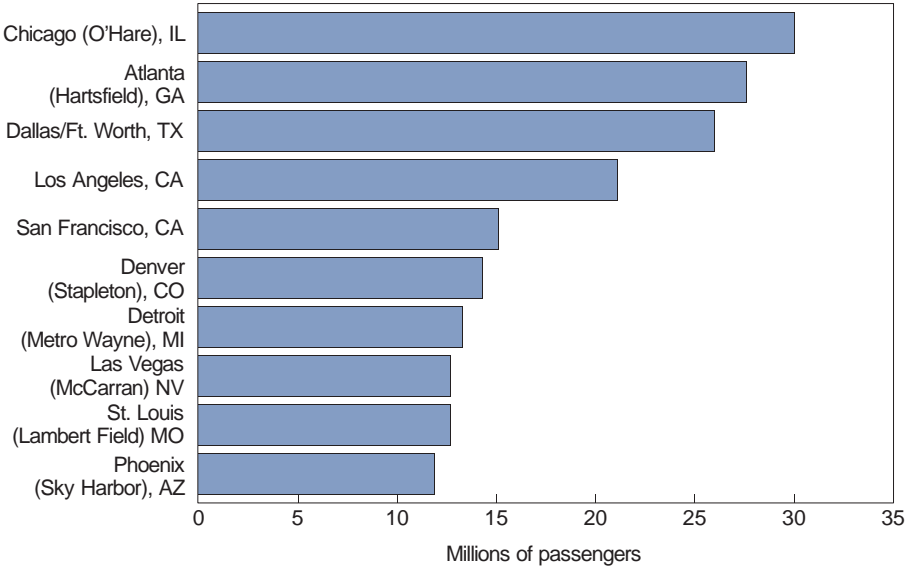
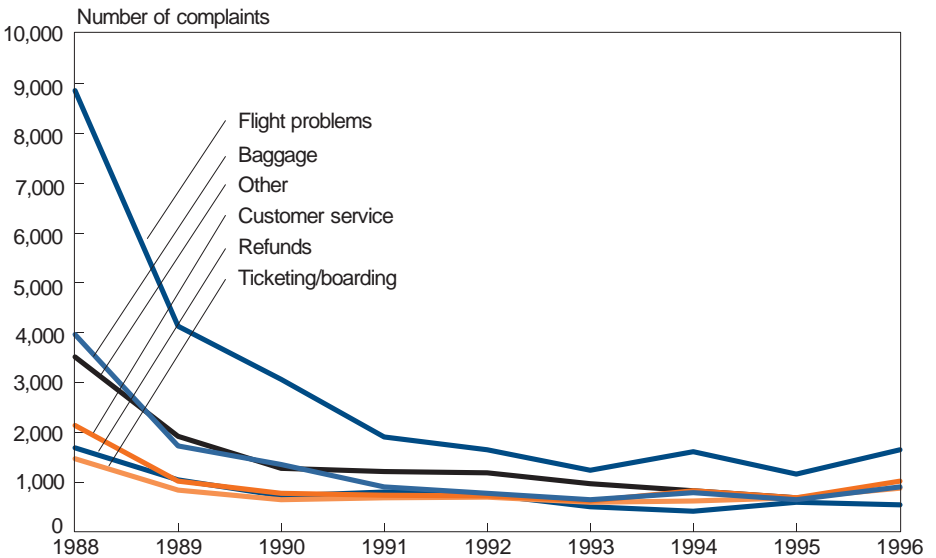


Figure 22.1  
**Revenue Passengers Enplaned—  
 Top 10 Airports: 1995**



Source: Chart prepared by U.S. Bureau of the Census. For data, see table 1048.

Figure 22.2  
**Consumer Complaints Against  
 U.S. Airlines: 1988 to 1996**



Source: Chart prepared by U.S. Bureau of the Census. For data, see table 1054.

## Transportation— Air and Water

This section presents data on civil air transportation, both passenger and cargo, and on water transportation, including inland waterways, oceanborne commerce, the merchant marine, cargo and vessel tonnages, and shipbuilding. Comparative data on various types of transportation carriers are presented in section 21.

Principal sources of these data are the annual *FAA Statistical Handbook of Aviation* issued by the Federal Aviation Administration (FAA); the annual *Waterborne Commerce of the United States* issued by the Corps of Engineers of the Department of the Army; the monthly and annual issues of *U.S. Waterborne Exports and General Imports*, and the annual *Vessel Entrances and Clearances*, and the monthly *Highlights of U.S. Export and Import Trade*, issued by the Bureau of the Census. In addition, the Bureau of the Census in its commodity transportation survey (part of the census of transportation, taken every 5 years, for years ending in “2” and “7”) provides data on the type, weight, and value of commodities shipped by manufacturing establishments in the United States, by means of transportation, origin, and destination.

Air transportation data are also presented annually by the Air Transport Association of America, Washington, DC, in *Air Transport Facts and Figures*. Additional sources of data on water transportation include *Merchant Fleets of the World* issued periodically by the U.S. Maritime Administration; *The Bulletin*, issued monthly by the American Bureau of Shipping, New York, NY; and *World Fleet Statistics* and the *Register Book*, published by Lloyd’s Register of Shipping, London, England.

**Civil aviation**—Federal promotion and regulation of civil aviation have been carried out by the FAA and the Civil Aeronautics Board (CAB). The CAB promoted and regulated the civil air transportation industry within the United States and between the United States and foreign

### In Brief

#### SCHEDULED AIR CARRIERS

Revenue passengers enplaned:

1985 382 million

1995 547 million

Net profit:

1985 +\$863 million

1995 +\$2,377 million

countries. The Board granted licenses to provide air transportation service, approved or disapproved proposed rates and fares, and approved or disapproved proposed agreements and corporate relationships involving air carriers. In December 1984, the CAB ceased to exist as an agency. Some of its functions were transferred to the Department of Transportation (DOT), as outlined below. The responsibility for investigation of aviation accidents resides with the National Transportation Safety Board.

The Office of the Secretary, DOT aviation activities include the following: negotiation of international air transportation rights, selection of U.S. air carriers to serve capacity controlled international markets, oversight of international rates and fares, maintenance of essential air service to small communities, and consumer affairs. DOT’s Bureau of Transportation Statistics (BTS) handles aviation information functions formerly assigned to CAB. Prior to BTS, the Research and Special Programs Administration handled these functions.

The principal activities of the FAA include the promotion of air safety, controlling the use of navigable airspace, prescribing regulations dealing with the competency of airmen, airworthiness of aircraft, and air traffic control, operation of air route traffic control centers, airport traffic control towers, and flight service stations, the design, construction, maintenance, and inspection of navigation, traffic control,

and communications equipment, and the development of general aviation.

The CAB published monthly and quarterly financial and traffic statistical data for the certificated route air carriers. BTS continues these publications, including both certificated and noncertificated (commuter) air carriers. The FAA publishes data annually on the use of airway facilities; data related to the location of airmen, aircraft, and airports; the volume of activity in the field of nonair carrier (general aviation) flying; and aircraft production and registration.

General aviation comprises all civil flying (including such commercial operations as small demand air taxis, agriculture application, powerline patrol, etc.) but excludes certificated route air carriers, supplemental operators, large-aircraft commercial operators and commuter airlines.

**Air carriers and service**—The CAB previously issued “certificates of public convenience and necessity” under Section 401 of the Federal Aviation Act of 1958 for scheduled and nonscheduled (charter) passenger services and cargo services. It also issued certificates under Section 418 of the Act to cargo air carriers for domestic all-cargo service only. The DOT Office of the Secretary now issues the certificates under a “fit, willing, and able” test of air carrier operations. Carriers operating only 60 seat or less aircraft are given exemption authority to carry passengers, cargo, and mail in scheduled and nonscheduled service under Part 298 of the DOT (formerly CAB) regulations. Exemption authority carriers who offer scheduled passenger service to an essential air service point must meet the “fit, willing, and able” test.

**Vessel shipments, entrances, and clearances**—Shipments by dry cargo

vessels comprise shipments on all types of watercraft, except tanker vessels; shipments by tanker vessels comprise all types of cargo, liquid and dry, carried by tanker vessels.

A vessel is reported as entered only at the first port which it enters in the United States, whether or not cargo is unloaded at that port. A vessel is reported as cleared only at the last port at which clearance is made to a foreign port, whether or not it takes on cargo. Army and Navy vessels entering or clearing without commercial cargo are not included in the figures.

**Units of measurement**—Cargo (or freight) tonnage and shipping weight both represent the gross weight of the cargo including the weight of containers, wrappings, crates, etc. However, shipping weight excludes lift and cargo vans and similar substantial outer containers. Other tonnage figures generally refer to stowing capacity of vessels, 100 cubic feet being called 1 ton. Gross tonnage comprises the space within the frames and the ceiling of the hull, together with those closed-in spaces above deck available for cargo, stores, passengers, or crew, with certain minor exceptions. Net or registered tonnage is the gross tonnage less the spaces occupied by the propelling machinery, fuel, crew quarters, master's cabin, and navigation spaces. Substantially, it represents space available for cargo and passengers. The net tonnage capacity of a ship may bear little relation to weight of cargo. Deadweight tonnage is the weight in long tons required to depress a vessel from light water line (that is, with only the machinery and equipment on board) to load line. It is, therefore, the weight of the cargo, fuel, etc., which a vessel is designed to carry with safety.

**No. 1045. Air and Water Transportation Industries—Summary: 1992**

[For establishments with payroll]

INDUSTRY	1987 SIC Code <sup>1</sup>	Establishments	Revenue (mil. dol.)	Annual payroll (mil. dol.)	Paid employees <sup>2</sup> (1,000)
<b>Air transportation<sup>3</sup></b> . . . . .	<b>45</b>	<b>(NA)</b>	<b>82,670</b>	<b>24,530</b>	<b>707</b>
Air transportation, including air courier services <sup>3</sup> . . . . .	451,2	(NA)	76,503	22,734	627
Scheduled and air courier services <sup>3</sup> . . . . .	451	(NA)	73,070	22,026	604
Scheduled <sup>3</sup> . . . . .	4512	(NA)	62,057	19,090	505
Air courier services . . . . .	4513	2,639	11,013	2,935	99
Nonscheduled . . . . .	452	1,791	3,433	708	23
Airport terminal services . . . . .	458	3,252	6,168	1,796	80
<b>Water transportation</b> . . . . .	<b>44</b>	<b>8,147</b>	<b>29,207</b>	<b>5,170</b>	<b>171</b>
Water transportation of freight . . . . .	441,2,3,4	836	14,704	1,523	37
Deep sea foreign and domestic freight . . . . .	441, 2	615	11,948	1,148	27
Deep sea foreign freight . . . . .	4412	334	8,490	629	13
Deep sea domestic freight . . . . .	4424	281	3,458	519	13
Other water transportation of freight . . . . .	443,4	221	2,756	375	10
Great Lakes-St. Lawrence Seaway freight . . . . .	4432	26	559	81	1
Water transportation of freight, n.e.c. <sup>4</sup> . . . . .	4449	195	2,197	293	9
Water transportation of passengers . . . . .	448	1,033	4,133	508	23
Ferries . . . . .	4482	118	155	51	2
Water transportation of passengers, except by ferry . . . . .	4481,9	915	3,978	457	22
Deep sea transportation, except by ferry . . . . .	4481	72	3,268	275	13
Water transportation of passengers, n.e.c. <sup>4</sup> . . . . .	4489	843	710	182	9
Services incidental to water transportation . . . . .	449	6,278	10,370	3,140	111
Marinas . . . . .	4493	3,348	1,651	346	18
Other services incidental to water transportation . . . . .	4491,2,9	2,930	8,719	2,794	93
Marine cargo handling . . . . .	4491	871	5,066	1,841	59
Towing and tugboat services . . . . .	4492	941	2,682	689	25
Water transportation services, n.e.c. <sup>4</sup> . . . . .	4499	1,118	971	263	9

NA Not available. <sup>1</sup> 1987 Standard Industrial Classification code; see text, section 13. <sup>2</sup> For the pay period including March 12. <sup>3</sup> Revenue for scheduled air transportation includes revenues for large certificated passenger carriers that was reported to the Office of Airline Statistics, U.S. Dept. of Transportation, as published in *Air Carrier Financial Statistics Quarterly*. <sup>4</sup> N.e.c. means not elsewhere classified.  
 Source: U.S. Bureau of the Census, *Census of Transportation, Communications, and Utilities: 1992*, UC92-A-1.

**No. 1046. U. S. Scheduled Airline Industry—Summary: 1985 to 1995**

[For calendar years or Dec. 31. For domestic and international operations. Covers carriers certificated under Section 401 of the Federal Aviation Act. Minus sign (-) indicates loss]

ITEM	Unit	1985	1989	1990	1991	1992	1993	1994	1995
<b>SCHEDULED SERVICE</b>									
Revenue passengers enplaned . . . . .	Mil. . . . .	382.0	453.7	465.6	452.3	475.1	488.5	528.8	547.4
Revenue passenger miles . . . . .	Bil. . . . .	336.4	432.7	457.9	448.0	478.6	489.7	519.4	540.4
Available seat miles . . . . .	Bil. . . . .	547.8	684.4	733.4	715.2	752.8	771.6	784.3	806.6
Revenue passenger load factor . . . . .	Percent . . . . .	61.4	63.2	62.4	62.6	63.6	63.5	66.2	67.0
Mean passenger trip length <sup>1</sup> . . . . .	Miles . . . . .	881	954	984	990	1,007	1,002	982	987
Freight and express ton miles . . . . .	Mil. . . . .	6,030.5	10,275.0	10,546.3	10,225.2	11,129.7	11,943.6	13,792.2	14,568.4
Aircraft departures . . . . .	1,000 . . . . .	5,835.5	6,622.1	6,923.6	6,782.8	7,050.6	7,245.4	7,531.0	8,053.6
<b>FINANCES</b>									
Total operating revenue <sup>2</sup> . . . . .	Mil. dol. . . . .	46,664	69,316	76,142	75,159	78,140	84,559	88,313	94,325
Passenger revenue . . . . .	Mil. dol. . . . .	39,236	53,802	58,453	57,092	59,829	63,945	65,422	69,485
Freight and express revenue . . . . .	Mil. dol. . . . .	2,681	6,893	5,432	5,509	5,916	6,662	7,284	8,480
Mail revenue . . . . .	Mil. dol. . . . .	890	955	970	957	1,184	1,212	1,183	1,265
Charter revenue . . . . .	Mil. dol. . . . .	1,280	2,052	2,877	3,717	2,801	3,082	3,548	3,327
Total operating expense . . . . .	Mil. dol. . . . .	45,238	67,505	78,054	76,943	80,585	83,121	85,600	88,433
Operating profit . . . . .	Mil. dol. . . . .	1,426	1,811	-1,912	-1,785	-2,445	1,438	2,713	5,892
Interest expense . . . . .	Mil. dol. . . . .	1,588	1,944	1,978	1,177	1,743	2,027	2,347	2,415
Net profit . . . . .	Mil. dol. . . . .	863	128	-3,921	-1,940	-4,791	-2,136	-344	2,377
Revenue per passenger mile . . . . .	Cents . . . . .	11.7	12.4	12.8	12.7	12.5	13.1	12.6	12.9
Rate of return on investment . . . . .	Percent . . . . .	9.6	6.3	-6.0	-0.5	-9.3	-0.4	5.2	12.0
Operating profit margin . . . . .	Percent . . . . .	3.1	2.6	-2.5	-2.3	-3.1	1.7	3.1	6.2
Net profit margin . . . . .	Percent . . . . .	1.8	0.2	-5.1	-2.6	-6.1	-2.5	-0.4	2.5
<b>EMPLOYEES</b>									
Total . . . . .	1,000 . . . . .	355	507	546	534	540	537	540	547
Pilots, copilots, and other flight personnel . . . . .	1,000 . . . . .	40	52	56	56	59	60	61	64
Flight attendants . . . . .	1,000 . . . . .	63	78	83	82	86	85	87	87
Mechanics . . . . .	1,000 . . . . .	43	57	61	59	59	58	56	50
Aircraft and traffic servicing personnel . . . . .	1,000 . . . . .	101	225	252	237	243	243	247	251
Other . . . . .	1,000 . . . . .	108	95	94	98	93	92	90	95

<sup>1</sup> For definition of mean, see Guide to Tabular Presentation. <sup>2</sup> Includes other types of revenues, not shown separately. Source: Air Transport Association of America, Washington, DC, *Air Transport*, annual, and *Air Transport, Facts and Figures*, annual.

### No. 1047. Airline Cost Indexes: 1980 to 1995

[Covers U.S. major and national service carriers. Major carriers have operating revenues of \$1 billion or more; nationals have operating revenues from \$75 million to \$1 billion. Minus sign (-) indicates decrease]

ITEM	INDEX (1982=100)								PERCENT DISTRIBUTION OF CASH OPERATING EXPENSES <sup>1</sup>			
	1980	1985	1990	1991	1992	1993	1994	1995	1985	1990	1994	1995
<b>INDEX</b>												
Composite . . . . .	86.3	103.1	117.0	119.8	122.0	124.0	123.4	125.4	100.0	100.0	100.0	100.0
Labor . . . . .	84.8	111.1	121.1	127.6	134.4	140.7	148.6	157.6	35.1	34.9	32.6	36.3
Interest <sup>2</sup> . . . . .	88.7	105.5	107.3	88.3	84.8	89.1	88.0	102.1	2.9	3.5	2.5	3.2
Fuel . . . . .	91.6	81.4	78.7	68.9	64.1	60.8	55.6	56.1	29.7	22.3	17.6	11.6
Passenger food . . . . .	94.3	102.0	132.6	141.4	144.1	131.6	123.7	114.4	2.9	3.2	3.6	3.4
Advertising and promotion . . . . .	69.5	99.8	107.6	97.9	89.8	80.3	77.6	71.4	1.7	2.3	2.1	1.5
Landing fees . . . . .	90.0	101.2	148.1	161.9	179.5	183.1	185.4	187.4	1.7	1.7	1.9	2.2
Passenger traffic commissions . . . . .	77.3	117.6	176.8	193.5	192.2	200.9	170.3	144.6	4.8	7.4	9.8	8.7
All other . . . . .	85.6	112.7	134.7	140.6	144.6	147.5	149.7	153.4	21.3	24.6	29.9	33.0
<b>PERCENT CHANGE <sup>3</sup></b>												
Composite . . . . .	23.3	0.3	7.3	2.4	1.8	1.6	-0.8	1.6	(X)	(X)	(X)	(X)
Labor . . . . .	10.0	2.9	2.3	5.4	5.3	4.7	5.6	6.1	(X)	(X)	(X)	(X)
Interest <sup>2</sup> . . . . .	16.9	-3.2	-3.8	-17.7	-4.0	5.1	-1.2	16.0	(X)	(X)	(X)	(X)
Fuel . . . . .	55.8	-5.7	28.6	-12.5	-7.0	-5.1	-8.6	0.9	(X)	(X)	(X)	(X)
Passenger food . . . . .	11.9	-4.2	8.0	6.6	1.9	-8.7	-6.0	-7.5	(X)	(X)	(X)	(X)
Advertising and promotion . . . . .	24.3	-0.2	2.5	-9.0	-8.3	-10.6	-3.4	-8.0	(X)	(X)	(X)	(X)
Landing fees . . . . .	9.6	-0.2	8.0	9.3	10.8	2.0	1.3	1.1	(X)	(X)	(X)	(X)
Passenger traffic commissions . . . . .	40.0	0.8	8.2	9.4	-0.7	4.5	-15.2	-15.1	(X)	(X)	(X)	(X)
All other . . . . .	9.3	3.7	4.1	4.4	2.9	2.2	1.5	2.5	(X)	(X)	(X)	(X)

X Not applicable. <sup>1</sup> Total operating expenses plus interest on long term debt, less depreciation and amortization. <sup>2</sup> Interest on debt. <sup>3</sup> Change from immediate prior year.

Source: Air Transport Association of America, Washington, DC, *Air Transport*, annual; and unpublished data.

### No. 1048. Top 10 Airports—Traffic Summary: 1995

[In thousands, except percent change. For calendar year. Airports ranked by revenue passengers enplaned. For scheduled carriers only; excludes charter-only carriers]

AIRPORT	Rank	AIRCRAFT DEPARTURES		REVENUE PASSENGERS ENPLANED		ENPLANED REVENUE TONS		
		Total <sup>1</sup>	Completed scheduled	Total	Percent change, 1980-1995	Total	Freight	U.S. mail
<b>All airports <sup>2</sup></b> . . . . .	(X)	<b>7,928</b>	<b>7,630</b>	<b>518,952</b>	<b>86.0</b>	<b>9,207</b>	<b>7,056</b>	<b>2,151</b>
Atlanta, Hartsfield International . . . . .	2	346	341	27,557	37.8	337	206	131
Chicago, O'Hare . . . . .	1	381	375	29,886	55.4	509	372	137
Dallas/Ft. Worth International . . . . .	3	382	372	25,964	148.9	286	184	102
Denver International . . . . .	6	179	173	14,328	49.0	153	89	64
Detroit, Metro Wayne . . . . .	7	165	150	13,294	164.6	133	79	54
Las Vegas McCarran . . . . .	9	131	124	12,657	173.4	32	18	14
Los Angeles International . . . . .	4	234	230	21,072	48.8	527	438	89
Phoenix, Sky Harbor International . . . . .	10	177	172	11,900	252.1	103	64	39
St. Louis, Lambert Field . . . . .	8	227	224	12,736	139.4	115	58	57
San Francisco International . . . . .	5	143	141	15,013	59.7	257	182	75

X Not applicable. <sup>1</sup> Includes completed scheduled and unscheduled. <sup>2</sup> Includes other airports, not shown separately. Source: U.S. Federal Aviation Administration and Research and Special Programs Administration, *Airport Activity Statistics*, annual.

### No. 1049. Domestic Airline Markets: 1995

[For calendar year. Data are for the 30 top markets and include all commercial airports in each metro area. Data do not include connecting passengers]

MARKET	Passengers	MARKET	Passengers
New York to—from Los Angeles . . . . .	2,991,060	New York to—from San Juan . . . . .	1,539,840
New York to—from Chicago . . . . .	2,981,610	Chicago to—from Detroit . . . . .	1,522,870
Honolulu to—from Kahului, Maui . . . . .	2,761,470	New York to—from West Palm Beach . . . . .	1,386,730
New York to—from Miami . . . . .	2,675,590	Los Angeles to—from Honolulu . . . . .	1,374,070
New York to—from Boston . . . . .	2,491,390	Los Angeles to—from Phoenix . . . . .	1,353,290
Dallas/Ft. Worth to—from Houston . . . . .	2,208,430	Honolulu to—from Kona, Hawaii . . . . .	1,341,690
New York to—from San Francisco . . . . .	2,185,760	Chicago to—from Los Angeles . . . . .	1,265,030
New York to—from Washington . . . . .	2,118,170	Honolulu to—from Hilo, Hawaii . . . . .	1,243,640
New York to—from Orlando . . . . .	2,005,130	Chicago to—from Atlanta . . . . .	1,163,540
Los Angeles to—from Las Vegas . . . . .	1,956,390	Boston to—from Washington . . . . .	1,140,750
Los Angeles to—from San Francisco . . . . .	1,933,450	Chicago to—from Minneapolis . . . . .	1,121,280
New York to—from Atlanta . . . . .	1,782,330	San Francisco to—from San Diego . . . . .	1,104,990
Honolulu to—from Lihue, Kauai . . . . .	1,775,350	Chicago to—from St. Louis . . . . .	1,100,600
New York to—from Ft. Lauderdale . . . . .	1,669,160	New York to—from Dallas/Ft. Worth . . . . .	1,051,340
Los Angeles to—from Oakland . . . . .	1,615,040	Los Angeles to—from Seattle/Tacoma . . . . .	1,050,240

Source: Air Transport Association of America, Washington, DC, *Air Transport* 1996.

**No. 1050. Worldwide Airline Fatalities: 1970 to 1996**

[For scheduled air transport operations]

YEAR	Fatal accidents	Passenger deaths	Death rate <sup>1</sup>	Death rate <sup>2</sup>	YEAR	Fatal accidents	Passenger deaths	Death rate <sup>1</sup>	Death rate <sup>2</sup>
1970 . . . . .	29	700	0.29	0.18	1989 <sup>3</sup> . . . . .	27	817	0.07	0.05
1975 . . . . .	20	467	0.13	0.08	1990 <sup>3</sup> . . . . .	25	495	0.04	0.03
1980 . . . . .	22	814	0.14	0.09	1991 <sup>3</sup> . . . . .	30	653	0.06	0.04
1984 . . . . .	16	223	0.03	0.02	1992 <sup>3</sup> . . . . .	29	1,097	0.09	0.06
1985 <sup>3</sup> . . . . .	22	1,066	0.15	0.09	1993 <sup>3</sup> . . . . .	34	936	0.08	0.05
1986 <sup>3</sup> . . . . .	22	546	0.06	0.04	1994 <sup>3</sup> . . . . .	28	941	0.07	0.05
1987 <sup>3</sup> . . . . .	26	901	0.09	0.06	1995 <sup>3</sup> . . . . .	26	710	0.04	0.03
1988 <sup>3</sup> . . . . .	28	729	0.07	0.04	1996 <sup>3</sup> . . . . .	23	1,135	0.08	0.05

<sup>1</sup> Rate per 100 million passenger miles flown. <sup>2</sup> Rate per 100 million passenger kilometers flown. <sup>3</sup> Includes the Commonwealth of Independent States which began reporting in 1986. <sup>4</sup> Preliminary.

Source: International Civil Aviation Organization, Montreal, Canada, *Civil Aviation Statistics of the World*, annual.

**No. 1051. Airline Passenger Screening Results: 1980 to 1995**

[Calendar year data]

YEAR	Passengers screened (mil.)	WEAPONS DETECTED			PERSONS ARRESTED		
		Firearms		Other <sup>1</sup>	Explosive/incendiary devices	Carrying firearms/explosives	Giving false information
		Handguns	Long guns				
1980 . . . . .	585	1,878	36	108	8	1,031	32
1985 . . . . .	993	2,823	90	74	12	1,310	42
1987 . . . . .	1,096	3,012	99	141	14	1,581	81
1988 . . . . .	1,055	2,591	74	108	11	1,493	222
1989 . . . . .	1,113	2,397	92	390	26	1,436	83
1990 . . . . .	1,145	2,490	59	304	15	1,336	18
1991 . . . . .	1,015	1,597	47	275	94	893	28
1992 . . . . .	1,111	2,503	105	2,341	167	1,282	13
1993 . . . . .	1,150	2,707	91	3,867	251	1,354	31
1994 . . . . .	1,261	2,860	134	6,051	505	1,433	35
1995 . . . . .	1,263	2,230	160	4,414	631	1,194	68

<sup>1</sup> Through 1991, includes other firearms; beginning 1992, includes stunning guns, chemical agents, martial arts equipment, knives, bludgeons, and other designated items.

Source: U.S. Federal Aviation Administration, *Annual Report to Congress on Civil Aviation Security*.

**No. 1052. Aircraft Accidents and Hijackings: 1975 to 1995**

[For years ending December 31]

ITEM	Unit	1975	1980	1985	1990	1993	1994	1995
Aircraft accidents: <sup>1</sup> General aviation <sup>2</sup>	Number	3,995	3,590	2,739	2,215	2,039	1,990	2,066
Fatal	Number	633	618	498	442	398	402	408
Rate per 100,000 aircraft hours flown	Rate	2.20	1.69	1.75	1.55	2	1.83	2.04
Fatalities	Number	1,252	1,239	955	766	736	723	732
Air carrier, all services <sup>3</sup>	Number	(NA)	19	21	24	23	23	35
Fatal	Number	(NA)	1	7	6	1	4	3
Rate per 1,000,000 aircraft miles flown	Rate	(NA)	(Z)	0.002	0.001	(Z)	0.001	0.001
Fatalities	Number	(NA)	1	526	39	1	239	168
Air carrier, scheduled services	Number	29	15	17	22	22	19	33
Fatal	Number	2	-	4	6	1	4	2
Rate per 1,000,000 aircraft miles flown	Rate	0.001	-	0.001	0.001	(Z)	0.001	(Z)
Fatalities	Number	122	-	197	39	1	239	166
Commuter air carriers <sup>4</sup>	Number	48	38	21	16	16	10	12
Fatal	Number	12	8	7	4	4	3	2
Rate per 1,000,000 aircraft miles flown	Rate	0.07	0.04	0.02	0.01	0.01	0.01	(Z)
Fatalities	Number	28	37	37	7	24	25	9
Air taxis <sup>5</sup>	Number	152	171	154	106	69	85	76
Fatal	Number	24	46	35	28	19	26	24
Rate per 100,000 aircraft hours flown	Rate	0.95	1.27	1.36	1.24	1.05	1.35	1.20
Fatalities	Number	69	105	76	50	42	63	52
Hijacking incidents, worldwide	Number	19	39	26	40	31	23	9
U.S. registered aircraft	Number	6	21	4	1	-	-	-
Foreign-registered aircraft	Number	13	18	22	39	31	23	9
Bomb threats:								
U.S. airports	Number	449	268	256	448	304	250	346
Explosions	Number	4	1	-	-	-	-	-
U.S. worldwide and foreign aircraft in U.S.	Number	1,853	1,179	372	338	248	218	327
Explosions	Number	2	1	1	-	-	-	-

- Represents zero. NA Not available. Z rounds to zero. <sup>1</sup> Data from National Transportation Safety Board. <sup>2</sup> See text, section 22. <sup>3</sup> U.S. air carriers operating under 14 CFR 121. <sup>4</sup> All scheduled service of U.S. air carriers operating under 14 CFR 135. <sup>5</sup> All nonscheduled service of U.S. air carriers operating under 14 CFR 135.

Source: U.S. Federal Aviation Administration, *FAA Statistical Handbook of Aviation*, annual, last published in 1993. Includes data from U.S. Department of Transportation, Bureau of Transportation Statistics. Internet site <<http://api.hq.faa.gov/apohome.htm>> and unpublished data.

### No. 1053. On-Time Flight Arrivals and Departures at Major U.S. Airports: 1996

[In percent. Quarterly, based on gate arrival and departure times for domestic scheduled operations in the 48 contiguous States of major U.S. airlines, per DOT reporting rule effective September 1987. All U.S. airlines with 1 percent or more of total U.S. domestic scheduled airline passenger revenues are required to report on-time data. A flight is considered on time if it operated less than 15 minutes after the scheduled time shown in the carrier's computerized reservation system. Cancelled and diverted flights are considered late. Excludes flight operations delayed/cancelled due to aircraft mechanical problems reported on FAA maintenance records (4-5 percent of the reporting airlines' scheduled operations). See source for data on individual airlines]

AIRPORT	ON-TIME ARRIVALS				ON-TIME DEPARTURES			
	1st. qtr.	2d. qtr.	3d. qtr.	4th. qtr.	1st. qtr.	2d. qtr.	3d. qtr.	4th. qtr.
Total, all airports . . . . .	70.2	77.9	76.2	73.9	74.9	82.5	81.3	78.8
Total major airports . . . . .	69.0	77.2	75.5	73.6	72.3	80.6	79.2	77.4
Atlanta, Hartsfield International . . . . .	59.0	77.2	74.6	74.2	62.1	80.9	80.3	79.4
Boston, Logan International . . . . .	61.3	73.9	71.2	73.2	68.0	82.2	81.0	81.4
Charlotte Douglas . . . . .	71.0	82.4	80.1	81.4	68.4	78.5	80.4	82.5
Chicago, O'Hare . . . . .	68.9	71.9	77.9	78.0	69.7	73.2	77.4	77.8
Cincinnati International . . . . .	68.6	78.0	78.6	74.8	69.1	80.3	81.5	81.3
Dallas/Ft. Worth Regional . . . . .	76.0	81.3	74.1	77.3	74.7	81.4	74.2	77.3
Denver International . . . . .	76.9	82.5	79.6	78.3	77.5	83.8	80.1	78.3
Detroit, Metro Wayne . . . . .	76.0	81.1	80.0	77.0	73.7	78.4	76.9	75.0
Houston Intercontinental . . . . .	81.5	84.0	80.5	82.5	86.2	86.9	84.8	86.0
Las Vegas, McCarran International . . . . .	73.0	81.3	78.2	70.7	76.5	83.8	80.5	74.7
Los Angeles International . . . . .	63.9	76.5	72.2	62.6	72.5	81.9	78.5	70.2
Miami International . . . . .	68.9	73.2	70.9	74.4	77.7	81.7	77.9	83.9
Minneapolis/St. Paul International . . . . .	75.5	78.2	80.6	73.3	76.5	80.1	81.2	74.7
Newark International . . . . .	63.0	66.4	61.9	69.5	70.0	76.7	72.1	77.3
New York, Kennedy International . . . . .	60.3	65.0	59.6	69.8	66.8	75.4	68.1	75.2
New York, LaGuardia . . . . .	67.0	75.4	74.2	77.1	72.6	84.4	83.1	83.4
Orlando International . . . . .	65.1	77.6	76.6	76.1	76.2	84.8	84.9	84.1
Philadelphia International . . . . .	68.1	76.3	75.3	74.3	71.0	79.7	79.9	79.7
Phoenix, Sky Harbor International . . . . .	73.4	81.2	78.5	71.4	77.6	82.1	79.8	73.2
Pittsburgh, Greater International . . . . .	69.7	78.9	79.7	80.0	71.1	80.6	82.9	83.3
St. Louis, Lambert . . . . .	67.1	74.7	74.8	72.3	67.8	75.4	75.8	72.5
Salt Lake City International . . . . .	64.7	80.8	76.7	66.5	65.8	82.7	78.1	70.4
San Diego International, Lindbergh . . . . .	70.6	81.0	79.3	70.0	77.8	87.2	86.5	76.1
San Francisco International . . . . .	60.2	72.8	72.3	60.5	69.1	80.3	77.3	66.8
Seattle-Tacoma International . . . . .	68.7	72.5	67.7	62.1	79.0	83.2	78.6	72.2
Tampa International . . . . .	65.5	75.9	74.5	73.0	73.8	83.7	85.5	82.8
Washington National . . . . .	67.9	77.1	75.5	78.8	73.5	84.7	84.4	86.0

Source: U.S. Department of Transportation, Office of Consumer Affairs, *Air Travel Consumer Report*, monthly.

### No. 1054. Consumer Complaints Against U.S. Airlines: 1988 to 1996

[Calendar year data. See source for data on individual airlines]

COMPLAINT CATEGORY	1988	1989	1990	1991	1992	1993	1994	1995	1996
<b>Total . . . . .</b>	<b>21,493</b>	<b>10,553</b>	<b>7,703</b>	<b>6,106</b>	<b>5,639</b>	<b>4,438</b>	<b>5,179</b>	<b>4,629</b>	<b>5,778</b>
Flight problems <sup>1</sup> . . . . .	8,831	4,111	3,034	1,877	1,624	1,211	1,586	1,133	1,626
Customer service <sup>2</sup> . . . . .	2,120	1,002	758	714	695	599	805	667	1,000
Baggage . . . . .	3,938	1,702	1,329	883	752	627	761	628	881
Ticketing/boarding <sup>3</sup> . . . . .	1,445	821	624	659	680	577	598	666	857
Refunds . . . . .	1,667	1,023	701	783	721	482	393	576	521
Oversales <sup>4</sup> . . . . .	1,353	607	399	301	265	257	301	263	353
Fares <sup>5</sup> . . . . .	455	341	312	388	573	398	267	185	180
Advertising . . . . .	141	89	96	96	54	51	94	66	61
Tours . . . . .	37	22	29	23	12	16	127	18	16
Smoking . . . . .	546	232	74	30	25	30	20	15	13
Credit . . . . .	35	19	5	10	10	4	2	4	3
Other . . . . .	925	584	342	342	228	186	225	408	267

<sup>1</sup> Cancellations, delays, etc. from schedule. <sup>2</sup> Unhelpful employees, inadequate meals or cabin service, treatment of delayed passengers. <sup>3</sup> Errors in reservations and ticketing; problems in making reservations and obtaining tickets. <sup>4</sup> All bumping problems, whether or not airline complied with DOT regulations. <sup>5</sup> Incorrect or incomplete information about fares, discount fare conditions, and availability, etc.

Source: U.S. Dept. of Transportation, Office of Consumer Affairs, *Air Travel Consumer Report*, monthly.

## No. 1055. Commuter/Regional Airline Operations—Summary: 1980 to 1996

[Calendar year data. Commuter/regional airlines operate primarily aircraft of predominately 75 passengers or less and 18,000 pounds of payload capacity serving short haul and small community markets. Represents operations within all North America by U.S. Regional Carriers. Averages are means. For definition of mean, see Guide to Tabular Presentation]

ITEM	Unit	1980	1985	1990	1992	1993	1994	1995	1996
Passenger carriers operating . . . . .	Number	214	179	150	127	130	125	124	109
Passengers enplaned . . . . .	Millions	14.8	26.0	42.1	48.9	52.7	57.1	57.2	61.8
Average passengers enplaned per carrier . . . . .	1,000	69.2	152.4	277.5	385.0	405.2	457.0	461.4	566.3
Revenue passenger miles (RPM) . . . . .	Billions	1.92	4.41	7.61	9.46	10.61	12.02	12.75	14.3
Average RPM's per carrier . . . . .	Millions	8.97	24.64	50.75	74.50	81.59	96.15	102.80	131.24
Airports served . . . . .	Number	732	854	811	802	829	806	780	782
Average trip length . . . . .	Miles	129	173	183	194	201	210	223	232
Passenger aircraft operated . . . . .	Number	1,339	1,745	1,917	2,103	2,208	2,172	2,138	2,127
Average seating capacity (seats) . . . . .	Number	13.9	19.2	22.1	23.4	23.0	23.7	24.6	25.1
Fleet flying hours <sup>2</sup> . . . . .	1,000	1,740	2,854	3,447	4,259	4,490	4,565	4,659	4,668
Average annual utilization per aircraft . . . . .	Hours	1,299	1,635	1,798	2,025	2,033	2,102	2,179	2,148

<sup>1</sup> Adjusted to exclude a merger in 1986. <sup>2</sup> Prior to 1992, utilization results reflected airborne rather than block hours. Data inclusive of carriers which may have operated during only part of calendar year 1996.

Source: Regional Airline Association, Washington, DC, Annual Report of the Regional Airline Industry (copyright).

## No. 1056. Civil Flying—Summary: 1970 to 1995

[As of Dec. 31 or for years ending Dec. 31, except as noted]

ITEM	Unit	1970	1980	1985	1990	1993	1994	1995
Airports in operation <sup>1</sup> . . . . .	Number	11,261	15,161	16,318	17,490	18,317	18,343	18,224
Heliports . . . . .	Number	790	2,336	3,120	4,085	4,569	4,617	4,559
Public . . . . .	Number	4,260	4,814	5,861	5,478	5,157	5,137	5,132
Private . . . . .	Number	7,001	10,347	10,457	12,012	13,160	13,206	13,092
Airports with runway lights . . . . .	Number	3,554	4,738	4,941	4,822	4,842	4,830	4,838
Airports with paved runways . . . . .	Number	3,805	5,833	6,721	7,694	8,186	8,230	10,029
Airport Improvement Program <sup>2</sup> . . . . .	Mil. dol.	50.5	639.0	842.1	1,244.7	1,830.0	1,628.0	1,418.1
Total civil aircraft <sup>3</sup> . . . . .	1,000	154.5	259.4	274.9	275.9	279.0	281.0	(NA)
Active aircraft <sup>4</sup> . . . . .	1,000	134.5	214.8	215.4	218.9	183.3	178.0	188.7
Air carriers, total . . . . .	1,000	2.8	3.8	4.7	6.7	7.3	7.4	7.4
General aviation aircraft <sup>5</sup> . . . . .	1,000	131.7	211.0	210.7	212.2	176.0	170.6	181.3
Fixed-wing aircraft: Multi-engine . . . . .	1,000	18.4	31.7	33.6	32.7	24.6	23.8	25
Single-engine . . . . .	1,000	109.5	168.4	164.4	165.1	130.7	123.3	129.5
Rotorcraft . . . . .	1,000	2.2	6.0	6.4	7.4	4.5	4.4	5.1
Balloons, blimps, gliders, etc . . . . .	1,000	1.6	5.0	6.3	7.0	5.2	6.2	5.3
Airman certificates held . . . . .	1,000	1,002	1,195	1,105	1,195	1,225	1,225	1,290
Pilot . . . . .	1,000	733	827	710	703	665	654	639
Held by women . . . . .	Percent	4.0	6.4	6.1	5.8	5.9	5.9	6.0
Airline transport . . . . .	1,000	34	70	83	108	117	117	124
Commercial . . . . .	1,000	187	183	152	149	143	139	134
Private . . . . .	1,000	304	357	311	299	284	284	261
Student . . . . .	1,000	196	200	147	128	104	96	101
Nonpilot <sup>6</sup> . . . . .	1,000	269	368	395	492	560	571	651
Ground technicians <sup>6</sup> . . . . .	1,000	241	321	341	421	485	498	574
FAA employees: Total . . . . .	Number	53,125	55,340	47,245	51,269	52,680	48,932	48,324
Air traffic control specialists <sup>10</sup> . . . . .	Number	(NA)	27,190	23,580	24,339	24,630	23,628	23,430
Full performance <sup>11</sup> . . . . .	Number	(NA)	16,317	11,672	12,985	14,931	14,997	14,845
Developmental <sup>11</sup> . . . . .	Number	(NA)	4,387	4,304	5,042	3,040	2,548	2,272
Assistants <sup>11</sup> . . . . .	Number	(X)	(X)	1,465	1,153	632	507	355
Traffic management coordinators <sup>12</sup> . . . . .	Number	(X)	(X)	(X)	370	482	544	561
Electronic technicians/ATSS <sup>13</sup> . . . . .	Number	(NA)	8,871	6,856	6,458	6,262	6,531	6,749
Aviation safety inspectors . . . . .	Number	(NA)	2,038	1,897	2,984	2,920	2,813	2,991
Engineers . . . . .	Number	(NA)	2,436	2,457	2,745	3,198	2,891	2,810
Other . . . . .	Number	(NA)	14,805	12,455	14,743	15,670	13,069	12,344
General aviation: <sup>5</sup> . . . . .								
Hours flown <sup>14</sup> . . . . .	Million	26.0	41.0	34.1	34.8	24.3	23.9	25.4
Fuel consumed: . . . . .								
Gasoline <sup>15</sup> . . . . .	Mil. gal.	362	520	420	353	268	264	276
Jet fuel <sup>15</sup> . . . . .	Mil. gal.	415	766	691	663	454	471	544

NA Not available. X Not applicable. <sup>1</sup> Existing airports, heliports, seaplane bases, etc. recorded with FAA. Includes military airports with joint civil and military use. Includes U.S. outlying areas. Airport-type definitions: Public—publicly owned and under control of a public agency; private—owned by a private individual or corporation. May or may not be open for public use.

<sup>2</sup> Fiscal year data. Does not include System Planning Grants. Includes U.S. outlying areas. 1970-1980 data are obligated Federal funds for the Airport Development Aid Program. Thereafter, data are appropriated Federal funds under the Airport and Airway Improvement Act of 1982. <sup>3</sup> Registered aircraft that flew 1 or more hours during the year. <sup>4</sup> Includes helicopters. <sup>5</sup> See text, section 22. Beginning 1993, excludes commuters and includes experimental aircraft, not shown separately. Prior to 1993, experimental aircraft were included in the appropriate type. <sup>6</sup> Includes autogyros; excludes air carrier helicopters. <sup>7</sup> Includes all active pilots. An active pilot is one with a pilot certificate and a valid medical certificate. Also includes pilots who hold only a helicopter, glider, or lighter than air certificate, not shown separately. <sup>8</sup> Includes dispatchers, flight navigators and engineers, and ground technicians—mechanics, parachute riggers, and ground instructors. <sup>9</sup> No medical examinations are required, therefore, data represent all certificates on record and include retired or otherwise inactive technicians. <sup>10</sup> Includes all air traffic control specialists (staff positions, managers, supervisors, and for 1970-1985 traffic management coordinators, not shown separately) and air traffic assistants. <sup>11</sup> Serving in-flight service stations, towers, and centers. <sup>12</sup> Prior to 1990, included in total air traffic control specialists. <sup>13</sup> Airway Transportation Systems Specialists. <sup>14</sup> Source: 1970, U.S. Bureau of Mines; thereafter, FAA General Aviation Activity and Avionics Survey. <sup>15</sup> Includes kerosene-type and naphtha-type jet fuels.

Source: Except as noted, U.S. Federal Aviation Administration, *FAA Statistical Handbook of Aviation*, annual, last published in 1993. Includes data from U.S. Department of Transportation, Research and Special Programs Administration. Internet site <<http://api.hq.faa.gov/apohome.htm>> and unpublished data.



**No. 1057. Net Orders for U.S. Civil Jet Transport Aircraft: 1985 to 1996**

[Value in millions of dollars. 1985-1992 are net new firm orders; beginning 1993, net announced orders. Minus sign (-) indicates net cancellations]

TYPE OF AIRCRAFT AND CUSTOMER	1985	1990	1991	1992	1993	1994	1995	1996
<b>Total number</b> <sup>1</sup>	<b>468</b>	<b>670</b>	<b>280</b>	<b>231</b>	<b>31</b>	<b>79</b>	<b>421</b>	<b>595</b>
U.S. customers	242	259	36	82	44	12	138	408
Foreign customers	226	411	244	149	-13	67	283	187
Boeing 737, total	253	189	75	91	-34	49	189	349
U.S. customers	146	38	-8	43	-29	9	85	284
Foreign customers	107	151	83	48	-5	40	104	65
Boeing 747, total	37	153	48	41	-25	-5	35	66
U.S. customers	13	24	-5	-	-25	-1	2	22
Foreign customers	24	129	53	41	-	-4	33	44
Boeing 757, total	51	66	80	7	20	5	-7	44
U.S. customers	39	33	42	29	46	-1	-6	35
Foreign customers	12	33	38	-22	-26	6	-1	9
Boeing 767, total	10	60	58	20	43	27	26	10
U.S. customers	4	23	28	10	41	11	4	11
Foreign customers	6	37	30	10	2	16	22	-1
Boeing 777, total	-	34	52	36	29	-	83	88
U.S. customers	-	34	-	-	5	-	-	37
Foreign customers	-	-	52	36	24	-	83	51
McDonnell Douglas MD-11, total	-	52	-31	1	-1	2	-6	9
U.S. customers	-	16	-26	4	-	2	3	1
Foreign customers	-	36	-5	-3	-1	-	-9	8
McDonnell Douglas MD-80/90, total	114	116	-2	35	-1	1	51	29
U.S. customers	37	91	5	-4	6	-8	-	18
Foreign customers	77	25	-7	39	-7	9	51	11
McDonnell Douglas MD-95, total	-	-	-	-	-	-	50	-
U.S. customers	-	-	-	-	-	-	50	-
Foreign customers	-	-	-	-	-	-	-	-
<b>Total value</b>	<b>14,811</b>	<b>45,485</b>	<b>23,351</b>	<b>16,640</b>	<b>(NA)</b>	<b>(NA)</b>	<b>(NA)</b>	<b>(NA)</b>
U.S. customers	7,869	14,828	2,144	3,200	(NA)	(NA)	(NA)	(NA)
Foreign customers	6,942	30,657	21,207	13,440	(NA)	(NA)	(NA)	(NA)

- Represents zero. NA Not available <sup>1</sup> Includes types of aircraft not shown separately.

Source: Aerospace Industries Association of America, Washington, DC, Research Center, Statistical Series 23.

**No. 1058. U.S. Aircraft Shipments With Projections: 1970 to 1995**

[Value in millions of dollars]

YEAR	TOTAL		CIVIL						MILITARY	
	Units	Value	Large transports		General Aviation <sup>1</sup>		Helicopters		Units	Value
			Units	Value	Units	Value	Units	Value		
1970	11,632	7,511	311	3,158	7,292	337	495	49	3,534	3,967
1975	16,958	9,355	285	4,006	14,056	1,033	838	266	1,779	4,050
1980	14,660	18,845	383	9,793	11,877	2,486	1,353	674	1,047	5,892
1985	3,597	29,312	273	9,375	2,029	1,431	376	505	919	18,001
1989	3,675	34,229	398	15,074	1,535	1,804	515	251	1,227	17,100
1990	3,321	39,207	521	22,215	1,144	2,008	603	254	1,053	14,730
1991	3,092	40,776	589	26,856	1,021	1,968	571	211	911	11,741
1992	2,628	41,832	610	30,268	941	1,840	324	142	753	9,582
1993	2,585	40,430	408	26,456	964	2,144	258	113	955	11,717
1994	2,301	30,262	310	19,800	928	2,357	308	185	755	7,920
1995, est.	2,275	28,390	256	17,824	1,077	2,842	292	194	650	7,530

<sup>1</sup> Excludes off-the-shelf military aircraft.

Source: U.S. Department of Commerce, International Trade Administration, Internet site <<http://www.ita.doc.gov/industry/ta/green/acsh7196.txt>> (accessed 8 July 1997).

**No. 1059. Employment and Earnings in Aircraft Industries: 1985 to 1996**

[Annual averages of monthly figures. See headnote, table 660]

ITEM	1987 SIC <sup>1</sup> code	Unit	1985	1990	1994	1995	1996
Employment: Total	(X)	1,000 . . .	794	898	589	549	547
Aircraft	3721	1,000 . . .	326	381	271	244	243
Aircraft engines and engine parts	3724	1,000 . . .	148	152	95	93	95
Aircraft equipment, n.e.c. <sup>2</sup>	3728	1,000 . . .	143	180	115	113	116
Guided missiles, space vehicles, and parts	376	1,000 . . .	177	185	108	99	93
Average weekly earnings: <sup>3</sup>	(X)						
Aircraft	3721	Dollars . . .	(NA)	(NA)	(NA)	(NA)	(NA)
Aircraft engines and parts	3724	Dollars . . .	542	637	763	770	813
Guided missiles, space vehicles, and parts	376	Dollars . . .	515	612	738	765	793
Average hourly earnings: <sup>3</sup>	(X)						
Aircraft <sup>4</sup>	3721	Dollars . . .	13.18	15.66	19.50	19.97	20.49
Aircraft engines and parts	3724	Dollars . . .	12.85	14.84	17.31	17.34	18.22
Guided missiles, space vehicles, and parts	376	Dollars . . .	12.14	14.39	17.48	17.75	18.56

NA Not available. X Not applicable. <sup>1</sup> 1987 Standard Industrial Classification; see text, section 13. <sup>2</sup> N.e.c. means not elsewhere classified. <sup>3</sup> For production workers. <sup>4</sup> Excludes lump-sum payments. Earnings which include proration of lump-sum payments were: \$13.40 in 1985; \$16.32 in 1990; \$19.57 in 1994; \$20.02 in 1995; and \$20.79 in 1996.

Source: U.S. Bureau of Labor Statistics, Bulletins 2445 and 2481; and *Employment and Earnings*, monthly, March and June issues.

**No. 1060. Aerospace—Sales, New Orders, and Backlog: 1989 to 1995**

[In billions of dollars, except as indicated. Reported by establishments in which the principal business is the development and/or production of aerospace products]

ITEM	1989	1990	1991	1992	1993	1994	1995
Net sales . . . . .	122.1	136.6	123.9	118.7	109.9	104.3	101.2
Percent U.S. Government . . . . .	58.0	54.0	48.9	50.0	49.9	54.8	49.6
Complete aircraft and parts . . . . .	38.4	49.9	52.9	54.0	48.9	43.3	41.5
Aircraft engines and parts . . . . .	15.4	16.4	15.6	13.7	12.2	11.3	12.0
Missiles and space vehicles, parts . . . . .	22.6	22.0	23.3	21.3	18.1	18.4	15.8
Other products, services . . . . .	45.7	48.3	32.0	29.7	30.7	31.3	31.8
Net, new orders . . . . .	173.6	146.0	122.5	100.3	79.7	88.7	104.7
Backlog, Dec. 31 . . . . .	252.4	250.1	245.2	236.1	211.8	192.6	194.6

<sup>1</sup> Except engines sold separately.

Source: U.S. Bureau of the Census, *Current Industrial Reports*, series MA-37D. Internet site <<http://www.census.gov/econ/www/manumenu.htm>> (accessed 8 July 1997).

**No. 1061. Aerospace Industry Sales, by Product Group and Customer: 1985 to 1997**

[In billions of dollars. Due to reporting practices and tabulating methods, figures may differ from those in table 1060]

ITEM	CURRENT DOLLARS					CONSTANT (1987) DOLLARS <sup>3</sup>				
	1985	1990	1995	1996 <sup>1</sup>	1997 <sup>2</sup>	1985	1990	1995	1996 <sup>1</sup>	1997 <sup>2</sup>
<b>Total sales . . . . .</b>	<b>96.6</b>	<b>134.4</b>	<b>106.3</b>	<b>112.4</b>	<b>125.0</b>	<b>97.8</b>	<b>121.6</b>	<b>84.3</b>	<b>87.9</b>	<b>95.3</b>
<b>PRODUCT GROUP</b>										
Aircraft, total . . . . .	50.5	71.4	55.1	60.5	72.0	51.1	64.6	43.7	47.3	54.9
Civil <sup>4</sup> . . . . .	13.7	31.3	24.0	27.7	40.6	13.9	28.3	19.0	21.7	31.0
Military . . . . .	36.8	40.1	31.1	32.8	31.4	37.2	36.3	24.7	25.6	23.9
Missiles . . . . .	11.4	14.2	6.3	5.6	5.2	11.6	12.8	5.0	4.4	4.0
Space . . . . .	18.6	26.4	27.3	27.6	26.9	18.8	23.9	21.6	21.6	20.5
Related products and services <sup>5</sup> . . . . .	16.1	22.4	17.7	18.7	20.8	16.3	20.3	14.1	14.7	15.9
<b>CUSTOMER GROUP</b>										
Aerospace, total . . . . .	80.5	112.0	88.6	93.7	104.2	81.5	101.3	70.3	73.3	79.4
DOD <sup>6</sup> . . . . .	53.2	60.5	41.3	38.3	36.1	53.9	54.8	32.8	30.0	27.5
NASA <sup>7</sup> and other agencies . . . . .	6.3	11.1	11.3	12.3	11.5	6.3	10.0	8.9	9.6	8.8
Other customers <sup>8</sup> . . . . .	21.0	40.4	36.0	43.0	56.5	21.3	36.5	28.6	33.7	43.1
Related products and services <sup>5</sup> . . . . .	16.1	22.4	17.7	18.7	20.8	16.3	20.3	14.1	14.7	15.9

<sup>1</sup> Preliminary. <sup>2</sup> Estimate. <sup>3</sup> Based on AIA's aerospace composite price deflator. <sup>4</sup> All civil sales of aircraft (domestic and export sales of jet transports, commuters, business, and personal aircraft and helicopters). <sup>5</sup> Electronics, software, and ground support equipment, plus sales of non-aerospace products which are produced by aerospace-manufacturing use technology, processes, and materials derived from aerospace products. <sup>6</sup> Department of Defense. <sup>7</sup> National Aeronautics and Space Administration. <sup>8</sup> Includes civil aircraft sales (see footnote 4), commercial space sales, all exports of military aircraft and missiles and related propulsion and parts.

Source: Aerospace Industries Association of America, Inc., Washington, DC, *1996 Year-end Review and Forecast*.

**No. 1062. Aerospace Industry—Net Profits After Taxes: 1980 to 1996**

[For calendar year. Minus sign (-) indicates loss]

YEAR	AEROSPACE INDUSTRY PROFITS					ALL MANUFACTURING CORPORATIONS PROFITS AS A PERCENT OF—		
	Total (mil. dol.)	As percent of—			Sales	Assets	Equity	
		Sales	Assets	Equity				
1980 . . . . .	2,588	4.3	5.2	16.0	4.8	6.9	13.9	
1982 . . . . .	2,193	3.3	3.7	12.0	3.5	4.5	9.2	
1983 . . . . .	2,829	3.5	4.1	12.1	4.1	5.1	10.5	
1984 . . . . .	3,639	4.1	4.7	14.1	4.6	6.0	12.5	
1985 . . . . .	3,274	3.1	3.6	11.1	3.8	4.6	10.1	
1986 . . . . .	3,093	2.8	3.1	9.4	3.7	4.2	9.5	
1987 . . . . .	4,582	4.1	4.4	14.6	4.9	5.6	12.8	
1988 . . . . .	4,883	4.3	4.4	14.9	6.0	6.9	16.2	
1989 . . . . .	3,866	3.3	3.3	10.7	5.0	5.6	13.7	
1990 . . . . .	4,487	3.4	3.4	11.5	4.0	4.3	10.7	
1991 . . . . .	<sup>1</sup> 2,484	1.8	1.9	6.1	2.5	2.6	6.4	
1992 . . . . .	<sup>1</sup> -1,836	-1.4	-1.2	-5.2	1.0	1.0	2.6	
1993 . . . . .	4,621	3.6	3.5	13.2	2.8	2.9	8.1	
1994 . . . . .	5,655	4.7	4.3	14.8	5.4	5.8	15.6	
1995 . . . . .	4,635	3.8	3.5	11.1	5.7	6.2	16.3	
1996 . . . . .	7,326	5.7	5.2	16.9	6.2	6.7	17.2	

<sup>1</sup> Reflects unusually large nonoperating expenses totalling \$3.4 billion in 1991 and \$8.7 billion in 1992 due to the initial implementation of a change in accounting for future retirement benefit costs and defense-downsizing restructuring charges. Many large aerospace corporations chose to write off against first quarter earnings amounts required to comply with FASB 106.

Source: Aerospace Industries Association of America, Washington, DC, *1996 Year-end Review and Forecast*.

## No. 1063. U.S. Exports of Aerospace Vehicles and Equipment: 1990 to 1995

ITEM	NUMBER OF UNITS				VALUE (mil. dol.)			
	1990	1993	1994	1995	1990	1993	1994	1995
Aerospace vehicles and equipment . . . . .	(NA)	(NA)	(NA)	(NA)	39,083	39,426	37,390	33,070
Civilian aircraft, (powered only) . . . . .	3,779	1,583	1,899	1,946	18,150	19,846	18,399	12,876
Under 4,536 kg. unladen weight, new . . . . .	1,134	555	446	516	318	230	258	286
4,536-15,000 kg. unladen weight, new . . . . .	79	58	69	60	245	324	347	321
Over 15,000 kg. unladen weight, new . . . . .	306	276	222	137	16,691	18,146	15,931	10,606
Rotorcraft, new . . . . .	349	175	154	210	161	120	82	170
Nonpowered aircraft, new . . . . .	(NA)	(NA)	(NA)	(NA)	15	9	7	15
Used or rebuilt . . . . .	1,911	694	639	613	712	1,012	1,111	876
Military aircraft, (powered only) . . . . .	445	632	437	775	1,481	1,460	1,504	1,330
Aircraft engines and parts . . . . .	(NA)	(NA)	(NA)	(NA)	6,883	6,278	6,494	6,169
Piston engines and parts . . . . .	(NA)	(NA)	(NA)	(NA)	421	294	332	361
Complete engines, new and used . . . . .	6,411	7,613	6,798	7,893	110	123	157	148
Engine parts . . . . .	(NA)	(NA)	(NA)	(NA)	311	172	175	213
Turbine engines and parts . . . . .	(NA)	(NA)	(NA)	(NA)	6,462	5,984	6,162	5,808
Complete engines, new and used . . . . .	24,687	17,088	5,028	7,032	1,856	2,409	2,497	1,811
Engine parts . . . . .	(NA)	(NA)	(NA)	(NA)	4,606	3,575	3,665	3,997
Propellers, rotors, and parts . . . . .	(NA)	(NA)	(NA)	(NA)	343	308	307	333
Landing gear and parts . . . . .	(NA)	(NA)	(NA)	(NA)	276	338	317	387
Aircraft parts and accessories, n.e.c. <sup>2</sup> . . . . .	(NA)	(NA)	(NA)	(NA)	8,982	8,574	8,944	9,465
Avionics . . . . .	(NA)	(NA)	(NA)	(NA)	747	646	681	674
Flight simulators . . . . .	(NA)	(NA)	(NA)	(NA)	255	197	232	122
Guided missiles and parts . . . . .	(NA)	(NA)	(NA)	(NA)	1,306	1,231	1,010	1,501
Space vehicles and parts . . . . .	(NA)	(NA)	(NA)	(NA)	660	548	574	812

NA Not available.

Source: U.S. Dept. of Commerce, International Trade Administration, Internet site &lt;http://www.ita.doc.gov/industry/ta/green/aerox895.txt&gt; (accessed 10 July 1997).

## No. 1064. International Transportation Transactions of the U.S.: 1980 to 1996

[In millions of dollars. Data are international transportation transactions recorded for balance of payment purposes (see table 1292). Receipts include freight on exports carried by U.S.-operated carriers and foreign carrier expenditures in U.S. ports. Payments include freight on imports carried by foreign carriers and U.S. carrier port expenditures abroad. Freight on exports carried by foreign carriers is excluded since such payments are directly or indirectly for foreign account. Similarly, freight on U.S. imports carried by U.S. carriers is a domestic rather than an international transaction. Minus sign (-) indicates excess of payments over receipts]

ITEM	1980	1985	1990	1991	1992	1993	1994	1995	1996 <sup>1</sup>
<b>Total receipts . . . . .</b>	<b>14,209</b>	<b>19,085</b>	<b>38,043</b>	<b>39,185</b>	<b>39,234</b>	<b>39,662</b>	<b>42,024</b>	<b>46,537</b>	<b>47,773</b>
Ocean passenger fares . . . . .	(Z)	60	154	156	176	237	287	285	329
Other ocean transportation . . . . .	7,757	8,846	12,141	12,252	11,328	11,533	12,404	13,580	12,494
Freight . . . . .	3,229	3,440	4,104	4,011	3,980	3,952	4,450	5,213	4,646
Port expenditures . . . . .	4,435	5,274	7,815	8,041	7,192	7,477	7,898	8,299	7,791
Charter hire . . . . .	93	132	222	200	156	104	56	68	57
Air passenger fares <sup>2</sup> . . . . .	2,591	4,351	15,144	15,698	16,442	16,374	16,796	18,840	20,228
Other air transportation . . . . .	3,355	5,347	8,878	9,256	9,206	9,378	10,211	10,968	11,693
Freight . . . . .	742	706	2,432	2,722	2,589	2,814	3,175	3,654	3,821
Port expenditures . . . . .	2,613	4,641	5,742	5,834	5,785	5,753	6,136	6,362	6,740
Aircraft leasing . . . . .	(NA)	(NA)	704	700	832	811	900	952	1,132
Miscellaneous receipts . . . . .	506	481	1,726	1,823	2,082	2,140	2,326	2,864	3,029
<b>Total payments . . . . .</b>	<b>15,397</b>	<b>22,087</b>	<b>35,699</b>	<b>35,216</b>	<b>35,450</b>	<b>37,059</b>	<b>40,140</b>	<b>42,682</b>	<b>44,229</b>
Ocean passenger fares . . . . .	268	154	248	279	301	341	353	353	453
Other ocean transportation . . . . .	8,179	10,698	13,078	12,276	11,861	12,568	13,803	14,173	13,595
Import freight . . . . .	5,809	8,114	10,290	9,593	9,269	10,028	10,965	11,133	10,930
Port expenditures . . . . .	1,905	2,048	2,174	2,093	2,029	2,011	2,325	2,554	2,233
Charter hire . . . . .	465	536	614	590	563	529	513	486	432
Air passenger fares <sup>2</sup> . . . . .	3,339	6,290	10,283	9,733	10,255	10,972	12,532	14,080	15,323
Other air transportation . . . . .	3,366	4,719	10,083	10,742	10,725	10,758	10,818	11,363	11,910
Import freight . . . . .	562	1,666	2,207	2,257	2,376	2,580	2,914	3,113	3,201
Port expenditures . . . . .	2,804	3,053	7,674	8,256	8,092	7,917	7,611	7,948	8,477
Aircraft leasing . . . . .	(NA)	(NA)	202	229	257	261	293	302	232
Miscellaneous payments . . . . .	245	226	2,007	2,186	2,308	2,420	2,634	2,713	2,948
<b>Balance . . . . .</b>	<b>-1,188</b>	<b>-3,002</b>	<b>2,345</b>	<b>3,969</b>	<b>3,784</b>	<b>2,603</b>	<b>1,884</b>	<b>3,855</b>	<b>3,544</b>

NA Not available. Z Less than \$500,000. <sup>1</sup> Preliminary. <sup>2</sup> Beginning 1990, includes interairline settlements.Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, June issues; and unpublished data.

### No. 1066. Federal Expenditures for Civil Functions of the Corps of Engineers, United States Army: 1970 to 1995

[In millions of dollars. For fiscal years ending in year shown, see text, section 9. These expenditures represent the work of the Corps of Engineers to plan, design, construct, operate, and maintain civil works projects and activities, particularly in the management and improvement of rivers, harbors, and waterways for navigation, flood control, and multiple purposes. The amounts listed below do not include the expenditure of funds contributed, advanced, or reimbursed by other government agencies or local interests. Includes Puerto Rico and outlying areas]

FISCAL YEAR	Total program <sup>1</sup>	Navigation	Flood control	Multiple purpose	FISCAL YEAR	Total program <sup>1</sup>	Navigation	Flood control	Multiple purpose
1970 . . . .	1,128	398	379	331	1988 . . . .	3,086	1,271	1,271	423
1980 . . . .	3,061	1,225	1,228	551	1989 . . . .	3,252	1,395	1,253	462
1982 . . . .	2,940	1,331	1,083	453	1990 . . . .	3,297	1,391	1,397	375
1983 . . . .	2,959	1,290	1,088	482	1991 . . . .	3,511	1,473	1,447	443
1984 . . . .	3,085	1,383	1,154	445	1992 . . . .	3,675	1,562	1,469	469
1985 . . . .	2,956	1,234	1,187	419	1993 . . . .	3,335	1,461	1,243	464
1986 . . . .	3,163	1,345	1,300	402	1994 . . . .	3,727	1,607	1,436	521
1987 . . . .	2,937	1,135	1,272	411	1995 . . . .	3,796	1,620	1,399	598

<sup>1</sup> Includes expenditures which are not associated with a specific purpose (e.g., headquarters staff supervision, management, and administration activities, and some research and development activities).

Source: U.S. Army Corps of Engineers, *Report of Civil Works Expenditures by State and Fiscal Year*, annual.

### No. 1067. Freight Carried on Major U.S. Waterways: 1975 to 1995

[In millions of tons]

ITEM	1975	1980	1985	1990	1991	1992	1993	1994	1995
Atlantic intracoastal waterway . . . . .	3.2	4.0	3.1	4.2	4.7	3.7	3.8	3.7	3.5
Great Lakes . . . . .	193.8	183.5	148.1	167.1	151.2	160.0	159.6	175.3	177.7
Gulf intracoastal waterway . . . . .	97.0	94.5	102.5	115.5	111.0	112.2	114.9	117.6	117.9
Mississippi River system . . . . .	453.4	584.2	527.8	659.6	645.9	674.4	660.4	693.3	710.1
Mississippi River mainstem . . . . .	311.2	441.5	384.0	475.6	471.6	490.7	475.1	496.8	520.2
Ohio River system . . . . .	171.4	179.3	203.9	260.0	251.4	261.2	257.2	270.5	267.6
Columbia River . . . . .	38.1	49.2	42.4	51.4	50.4	49.6	51.2	50.9	57.1
Snake River . . . . .	2.0	5.1	3.5	4.8	5.1	4.7	5.3	5.9	6.8

<sup>1</sup> Main channels and all tributaries of the Mississippi, Illinois, Missouri and Ohio Rivers. <sup>2</sup> Main channels and all navigable tributaries and embayments of the Ohio, Tennessee, and Cumberland Rivers.

Source: U.S. Army Corps of Engineers, *Waterborne Commerce of the United States*, annual.

### No. 1068. Waterborne Commerce, by Type of Commodity: 1990 to 1995

[In millions of short tons. Domestic trade includes all commercial movements between United States ports and on inland rivers, Great Lakes, canals, and connecting channels of the United States, Puerto Rico, and Virgin Islands]

COMMODITY	1990	1993	1994	1995			
				Total	Domestic	Foreign imports	Foreign exports
Total <sup>1</sup> . . . . .	2,163.9	2,128.2	2,214.8	2,240.4	1,093.0	672.7	474.7
Coal . . . . .	339.9	300.4	314.1	324.5	223.5	10.2	90.7
Petroleum and petroleum products . . . . .	923.2	930.6	961.3	907.1	403.6	449.6	53.9
Crude petroleum . . . . .	485.7	505.7	531.5	504.6	133.2	371.4	(Z)
Petroleum products <sup>1</sup> . . . . .	437.5	424.9	429.9	402.5	270.3	78.2	53.9
Gasoline . . . . .	116.9	112.3	119.1	114.4	99.8	10.8	3.8
Distillate fuel oil . . . . .	77.4	83.3	81.4	76.7	57.2	12.9	6.6
Residual fuel oil . . . . .	145.2	123.2	123.4	111.9	75.8	25.9	10.1
Chemicals and related products . . . . .	123.8	131.6	146.9	153.7	79.4	24.3	50.0
Crude material, inedible <sup>1</sup> . . . . .	374.7	360.6	369.3	381.7	226.4	82.7	72.7
Forest products, wood and chips . . . . .	55.7	48.1	47.0	47.2	20.7	3.9	22.7
Pulp and waste paper . . . . .	11.8	11.3	12.3	14.9	0.5	1.0	13.5
Soil, sand, gravel, rock, and stone . . . . .	144.2	147.5	147.8	152.5	119.2	23.0	10.3
Primary manufactured goods <sup>1</sup> . . . . .	76.0	76.8	105.0	106.3	36.8	51.7	17.7
Papers products . . . . .	10.7	11.6	12.4	13.1	1.5	3.8	7.8
Lime, cement and glass . . . . .	28.3	24.2	30.9	33.9	16.2	15.9	1.8
Primary iron and steel products . . . . .	25.1	27.4	46.4	44.1	13.9	25.2	4.9
Food and farm products <sup>1</sup> . . . . .	267.5	269.3	255.8	303.2	103.4	23.2	176.7
Fish . . . . .	3.2	3.3	2.7	3.6	1.9	0.9	0.8
Grain <sup>1</sup> . . . . .	157.3	146.2	133.1	167.9	57.6	2.2	108.2
Corn . . . . .	96.1	78.9	69.4	105.0	40.8	(Z)	64.2
Wheat . . . . .	44.5	52.6	47.4	48.5	12.8	0.4	35.3
Oilseeds . . . . .	36.0	41.3	38.7	46.1	21.6	0.1	24.4
Soybeans . . . . .	32.2	37.7	35.7	42.0	18.4	(Z)	23.6
Vegetables products . . . . .	6.7	7.3	8.4	9.0	2.1	2.2	4.7
Processed grain and animal feed . . . . .	28.2	32.4	29.7	33.0	10.6	0.8	21.7

Z Rounds to zero. <sup>1</sup> Includes categories not shown separately.

Source: U.S. Army Corps of Engineers, *Waterborne Commerce of the United States*, annual.

**No. 1069. Waterborne Imports and Exports, by Coastal District: 1980 to 1995**

[Exports are free alongside ship (f.a.s.) value for all years; imports are f.a.s. value for 1980 and customs value for other years, see text, section 28. Includes commodities classified for security reasons as "Special Category" (exports only) and exports by Dept. of Defense (grant-aid shipments), and merchandise shipped in transit through the United States. See Appendix III]

DISTRICT	CARGO TONNAGE (mil. tons) <sup>1</sup>						VALUE (bil. dol.)					
	1980	1985	1990	1993	1994	1995	1980	1985	1990	1993	1994	1995
Imports:												
Atlantic . . . . .	183	190	207	197	219	203	71.5	94.4	110.8	117.7	134.4	145.5
Gulf . . . . .	243	141	225	267	294	285	56.4	32.8	41.0	38.7	44.0	46.5
Pacific . . . . .	56	51	55	58	64	65	45.0	90.4	143.3	168.8	190.6	196.9
Great Lakes . . . . .	16	17	16	16	21	17	1.9	2.8	7.6	10.3	7.4	2.6
Exports:												
Atlantic . . . . .	117	93	101	83	78	96	51.0	35.2	62.4	75.4	78.7	91.7
Gulf . . . . .	163	144	148	155	141	173	41.5	31.8	41.2	39.9	40.8	53.1
Pacific . . . . .	78	81	100	96	97	111	25.2	25.8	53.7	59.9	68.2	80.8
Great Lakes . . . . .	45	34	26	21	24	28	4.6	2.4	1.7	1.5	1.6	2.5

<sup>1</sup> 1980 and 1985, short tons; beginning 1990, metric tons.

Source: U.S. Bureau of the Census, U.S. *Waterborne Exports and General Imports*, 1980 and 1985, FT 985, annual; 1990, TM 985, monthly; thereafter TA 985, annual.

**No. 1070. Vessels Entered and Cleared in Foreign Trade, Net Registered Tonnage: 1966 to 1995**

[In millions of net registered tons, except as indicated. Includes Puerto Rico and Virgin Islands. Seaports comprise all ports except Great Lakes ports]

YEARLY AVERAGE OR YEAR	ALL PORTS					SEAPORTS				
	Number of ves-sels	Tonnage, all vessels			Tonnage, all vessels			Tonnage, with cargo		
		Total	U.S.	Foreign	Total	U.S.	Foreign	Total	U.S.	Foreign
Entered:										
1966-70 . . . . .	53,459	232	29	203	206	27	180	157	18	139
1971-75 . . . . .	53,760	319	30	290	292	28	264	220	24	196
1976-80 . . . . .	53,700	458	40	418	425	38	387	316	30	286
1981-85 . . . . .	50,124	452	57	395	424	55	369	277	36	241
1986-90 . . . . .	61,978	548	46	502	521	45	476	346	30	315
1991-95 . . . . .	55,347	522	36	487	499	34	465	328	27	302
1970 . . . . .	53,293	254	26	226	227	24	202	171	19	152
1975 . . . . .	51,443	355	32	323	326	30	297	240	26	215
1980 . . . . .	53,645	492	52	440	460	50	410	310	34	276
1985 . . . . .	53,531	451	53	398	426	52	374	283	34	249
1990 . . . . .	66,424	589	41	548	564	40	524	367	30	337
1992 . . . . .	55,056	515	37	478	493	36	457	312	28	284
1993 . . . . .	54,834	515	35	480	493	33	460	329	26	303
1994 . . . . .	54,408	527	35	492	503	33	469	349	27	322
1995 . . . . .	55,184	539	32	507	514	30	484	341	25	316
Cleared:										
1966-70 . . . . .	52,415	232	30	202	206	27	179	122	23	99
1971-75 . . . . .	53,039	324	31	293	296	29	267	149	21	127
1976-80 . . . . .	52,931	453	41	412	420	38	382	203	26	177
1981-85 . . . . .	50,291	460	57	403	432	55	377	251	34	217
1986-90 . . . . .	60,249	551	47	504	524	46	478	284	31	253
1991-95 . . . . .	53,734	526	37	490	503	35	468	274	27	247
1970 . . . . .	52,195	253	27	226	226	25	201	132	20	112
1975 . . . . .	51,017	363	34	329	334	31	303	168	23	144
1980 . . . . .	52,928	487	54	433	456	51	405	246	33	213
1985 . . . . .	53,095	461	55	406	435	53	382	253	36	217
1990 . . . . .	63,648	592	43	550	566	41	525	304	29	275
1992 . . . . .	54,127	519	38	481	496	37	460	276	28	248
1993 . . . . .	53,637	519	36	483	497	35	462	262	28	234
1994 . . . . .	53,036	532	36	496	508	34	473	265	27	238
1995 . . . . .	52,772	540	33	508	517	31	485	285	24	261

Source: U.S. Bureau of the Census, *Vessel Entrances and Clearances*, through 1985, FT 975, annual; thereafter TA 987, annual.

**No. 1071. Domestic Merchant Vessels Completed by U.S. Shipyards: 1970 to 1995**

[Vessels of 1,000 gross tons and over]

TYPE	Unit	1970	1980	1985	1986	1987	1988	1992	1993	1994	1995
Merchant vessels . . . . .	Number . . . . .	13	10	8	5	4	4	3	-	1	-
Gross tons . . . . .	1,000 . . . . .	342	375	172	215	153	153	44	-	17	-
Cargo . . . . .	Number . . . . .	6	6	4	2	3	3	1	-	-	-
Gross tons . . . . .	1,000 . . . . .	120	105	113	66	58	58	32	-	-	-
Deadweight tons . . . . .	1,000 . . . . .	134	114	97	53	63	63	29	-	-	-
Tankers . . . . .	Number . . . . .	7	4	4	3	1	1	2	-	1	-
Gross tons . . . . .	1,000 . . . . .	222	270	59	149	95	95	12	-	17	-
Deadweight tons . . . . .	1,000 . . . . .	427	354	92	271	209	209	16	-	22	-

- Represents zero.

Source: U.S. Maritime Administration, *New Ship Construction*, annual.

No. 1072. United States Flag Merchant Vessels: 1996

[As of January. Covers ocean-going vessels of 1,000 gross tons and over engaged in foreign and domestic trade, and inactive vessels. Excludes vessels operating exclusively on Great Lakes, inland waterways, and those owned by the United States Army and Navy, and special types such as cable ships, tugs, etc.]

VESSEL TYPE	NUMBER						DEADWEIGHT TONS (1,000)					
	Total	Pas-sen-ger <sup>1</sup>	Car-go <sup>2</sup>	Inter-coastal	Bulk car-r-ier <sup>3</sup>	Tank-er <sup>4</sup>	Total	Pas-sen-ger <sup>1</sup>	Car-go <sup>2</sup>	Inter-coastal	Bulk car-r-ier <sup>3</sup>	Tank-er <sup>4</sup>
Total . . . . .	509	13	125	170	20	181	18,585	115	1,803	4,714	925	11,028
Active vessels . . . . .	303	6	19	124	17	137	13,543	55	309	3,628	846	8,705
Privately owned . . . . .	292	1	15	123	17	136	13,425	7	259	3,625	846	8,688
U.S. foreign trade . . . . .	97	-	5	62	12	18	3,714	-	56	2,130	673	855
Foreign-to-foreign . . . . .	26	-	-	8	2	16	1,583	-	-	248	93	1,242
Domestic trade . . . . .	127	1	5	26	3	92	7,017	7	85	559	80	6,286
Coastal . . . . .	67	-	3	2	3	59	2,429	-	45	53	80	2,251
Noncontiguous . . . . .	60	1	2	24	-	33	4,588	7	40	506	-	4,035
Military Sea Lift												
Command . . . . .	42	-	5	27	-	10	1,111	-	118	688	-	305
Government owned . . . . .	11	5	4	1	-	1	118	48	50	3	-	17
Ready reserve force . . . . .	2	1	1	-	-	-	24	9	15	-	-	-
Other Custody . . . . .	3	-	2	-	-	1	39	-	22	-	-	17
Other Reserve . . . . .	6	4	1	1	-	-	55	39	13	3	-	-
Inactive vessels . . . . .	206	7	106	46	3	44	5,042	60	1,494	1,086	79	2,323
Privately owned . . . . .	27	1	5	1	3	17	1,627	7	68	19	79	1,454
Temporarily inactive . . . . .	2	-	-	-	1	1	105	-	-	-	33	72
Lay-up . . . . .	23	1	5	1	2	14	1,454	7	68	19	46	1,314
Lay-up (MARAD Custody) <sup>5</sup> . . . . .	2	-	-	-	-	2	68	-	-	-	-	68
Government owned (MARAD Custody) <sup>5</sup>												
National defense reserve fleet . . . . .	179	6	101	45	-	27	3,415	53	1,426	1,067	-	869
Ready reserve fleet . . . . .	90	-	42	38	-	10	1,852	-	608	940	-	304
Other reserve <sup>6</sup> . . . . .	45	-	29	7	-	9	941	-	472	127	-	342
Nonrentention <sup>6</sup> . . . . .	44	6	30	-	-	8	622	53	346	-	-	223

- Represents zero. <sup>1</sup> Includes combination passenger and cargo vessels. <sup>2</sup> General cargo. <sup>3</sup> Includes tug barges. <sup>4</sup> Includes tanker barges and liquefied natural gas vessels. <sup>5</sup> In the custody of the Maritime Administration. <sup>6</sup> Vessels not actively maintained.

Source: U.S. Maritime Administration, *Employment Report of the United States Flag Merchant Fleet Ocean-Going Vessels 1,000 Gross Tons and Over*, annual.

No. 1073. Private Shipyards—Summary: 1980 to 1993

[For calendar year, unless noted]

ITEM	Unit	1980	1985	1987	1988	1989	1990	1991	1992	1993
Employment <sup>1</sup> . . . . .	1,000 . .	177.3	130.3	120.4	121.0	123.4	121.8	127.2	123.5	111.0
Production workers . . . . .	1,000 . .	141.8	99.0	90.8	90.9	88.6	86.4	95.5	93.3	84.3
Value of work done . . . . .	Mil. dol. .	9,269	9,358	8,531	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
On ships only . . . . .	Mil. dol. .	8,889	9,483	8,377	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Value added . . . . .	Mil. dol. .	5,338	5,740	5,227	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Building activity:										
Merchant vessels: <sup>2</sup>										
Under construction <sup>3</sup> . . . . .	Number .	69	10	6	-	-	-	3	3	1
Ordered . . . . .	Number .	7	-	-	-	-	3	-	1	-
Delivered . . . . .	Number .	23	3	4	-	-	-	-	3	-
Cancelled . . . . .	Number .	4	-	-	-	-	-	-	-	-
Under contract <sup>4</sup> . . . . .	Number .	49	7	-	-	-	3	3	1	1
Naval vessels: <sup>2</sup>										
Under construction <sup>3</sup> . . . . .	Number .	99	100	79	83	105	98	91	90	82
Ordered . . . . .	Number .	11	11	20	32	16	8	13	10	12
Delivered . . . . .	Number .	19	26	16	10	23	15	14	18	19
Under contract <sup>4 5</sup> . . . . .	Number .	91	85	83	105	98	91	90	82	73
Repairs/conversions:										
Commercial ships . . . . .	Mil. dol. .	1,335	852	806	202	279	373	380	226	292
Naval ships . . . . .	Mil. dol. .	1,134	2,311	1,930	1,238	1,091	1,119	993	526	573
Unfinished work:										
Commercial ships . . . . .	Mil. dol. .	2,070	450	53	-	-	-	99	32	42
Naval ships . . . . .	Mil. dol. .	7,107	12,091	8,265	10,500	16,010	15,450	14,151	12,286	(NA)

- Represents zero. NA Not available. <sup>1</sup> Annual average of monthly data. <sup>2</sup> Vessels of 1,000 tons or larger. <sup>3</sup> As of Jan. 1. <sup>4</sup> As of Dec. 31. <sup>5</sup> Two ships were cancelled in August 1993.

Source: Shipbuilders Council of America, Arlington, VA., *Annual Report*, for 1980; thereafter, unpublished data.

**No. 1074. Employees in Government and Private Shipyards: 1960 to 1996**

[In thousands. Annual average employment in establishments primarily engaged in building and repairing all types of ships, barges, canal boats, and lighters of 5 gross tons and over, whether propelled by sail or motor power or towed by other craft. Includes all full- and part-time employees]

YEAR	Total	Private yards	Navy yards	YEAR	Total	Private yards	Navy yards	YEAR	Total	Private yards	Navy yards
1960	208	112	96	1987	200	124	75	1992	183	124	59
1970	216	134	83	1988	197	124	73	1993	163	113	50
1975	217	154	65	1989	196	126	71	1994	148	107	41
1980	250	178	72	1990	198	130	68	1995	139	105	34
1985	219	138	80	1991	193	131	62	1996	124	98	26

Source: U.S. Bureau of Labor Statistics, Bulletins 2445 and 2481; *Employment and Earnings*, monthly, March and June issues; and unpublished data.

**No. 1075. Employment on U.S. Flag Merchant Vessels and Basic Monthly Wage Scale for Able-Bodied Seamen, 1970 to 1996**

[Employment in thousands]

YEAR	Employment <sup>1</sup>	YEAR	Employment <sup>1</sup>	YEAR	East coast wage rate <sup>2</sup>	West coast wage rate <sup>2</sup>	YEAR	East coast wage rate <sup>2</sup>	West coast wage rate <sup>2</sup>
1975	20.5	1991	11.7	1975	612	900	1991	1,518	2,329
1980	19.6	1992	9.2	1980	967	1,414	1992	1,655	2,438
1985	13.1	1993	9.3	1985	1,419	2,029	1993	1,721	2,438
1988	10.7	1994	9.1	1988	1,419	2,175	1994	1,790	2,536
1989	9.9	1995	7.9	1989	1,448	2,218	1995	1,918	2,637
1990	11.1	1996	7.5	1990	1,505	2,218	1996	2,014	2,769

<sup>1</sup> As of June 30, except beginning 1980, as of Sept. 30. Estimates of personnel employed on merchant ships, 1,000 gross tons and over. Excludes vessels on inland waterways, Great Lakes, and those owned by, or operated for, U.S. Army and Navy, and special types such as cable ships, tugs, etc. <sup>2</sup> As of January. Basic monthly wage, over and above subsistence (board and room); excludes overtime and fringe pay benefits. West coast incorporates extra pay for Saturdays and Sundays at sea into base wages but east coast does not.

Source: U.S. Maritime Administration, *U.S. Merchant Marine Data Sheet*, monthly; and unpublished data.

**No. 1076. Worldwide Tanker Casualties: 1975 to 1996**

[Data for 1975 and 1980 covers tankers, ore/oil carriers and bulk/oil vessels of 6,000 deadweight tons and over; beginning 1985, 10,000 deadweight tons and over; excludes liquid gas carriers. Incident is counted in the year it is reported. Based on data from "Lloyd's List" published by Lloyd's of London. "Casualties" include weather damage, strandings, collisions and other contact, fires and explosions, machinery damage, and other mishaps]

ITEM	Unit	1975	1980	1985	1990	1991	1992	1993	1994	1995	1996
Casualties	Number	906	(NA)	340	541	507	396	314	270	280	234
Total losses	Number	22	15	12	10	10	11	9	11	6	2
Deaths	Number	90	132	53	119	205	86	26	88	8	15
Oil spills	Number	45	32	9	31	26	17	24	29	18	24
Amount	1,000 tons	188	136	80	61	439	152	120	110	4	72
Amount	Mil. gallons	58	42	25	19	136	47	37	33	1	22

NA Not available. <sup>1</sup> Excludes losses due to hostilities.

Source: Tanker Advisory Center, Inc., New York, NY, "Worldwide Tanker Casualty Returns," quarterly.

**No. 1077. Merchant Vessels—World and United States: 1960 to 1993**

[Through 1992, as of mid-year; thereafter for year-end. For propelled sea-going merchant ships of not less than 100 gross tonnage]

YEAR	WORLD: COMPLETED		WORLD: OWNED		U.S.: COMPLETED		U.S.: REGISTERED	
	Number	Gross tonnage (1,000)	Number	Gross tonnage (1,000)	Number	Gross tonnage (1,000)	Number	Gross tonnage (1,000)
1960	2,005	8,382	36,311	129,770	49	379	4,059	24,837
1970	2,814	20,980	52,444	227,490	156	375	2,983	18,463
1980	2,412	13,101	73,832	419,911	205	555	5,579	18,464
1985	1,964	18,157	76,395	416,269	66	180	6,447	19,518
1989	1,593	13,236	76,100	410,481	10	4	6,375	20,588
1990	1,672	15,885	78,336	423,627	16	15	6,348	21,328
1991	1,574	16,095	80,030	436,027	17	9	6,222	20,291
1992	1,506	18,633	79,845	444,305	27	54	5,737	18,228
1993	1,505	20,025	80,655	457,915	30	14	5,646	14,087

Source: Through 1992, Lloyd's Register of Shipping, London, England, *Statistical Tables*, annual; and *Annual Summary of Merchant Ships Completed in the World*; thereafter, *World Fleet Statistics*, annual.

**No. 1078. Merchant Vessels—Ships and Tonnage Lost Worldwide: 1980 to 1993**

[For merchant vessels of 100 gross tonnage and above. Excludes ships which have been declared constructive losses but have undergone repair during the year. Loss counted in the year the casualty occurred, providing that information was available at time of relevant publication]

TYPE OF SHIP	SHIPS LOST					GROSS TONNAGE LOST (1,000)				
	1980	1985	1990	1992	1993	1980	1985	1990	1992	1993
<b>Total</b> <sup>1</sup> . . . . .	<b>387</b>	<b>307</b>	<b>188</b>	<b>213</b>	<b>219</b>	<b>1,804</b>	<b>1,651</b>	<b>1,126</b>	<b>1,223</b>	<b>778</b>
Tankers . . . . .	24	19	8	7	12	707	776	138	332	198
Ore/bulk carriers <sup>2</sup> . . . . .	21	22	15	13	7	458	405	687	576	160
General cargo . . . . .	211	155	87	81	96	478	363	202	174	310
Container ships . . . . .	2	5	-	4	1	6	41	-	40	5
Passenger <sup>3</sup> . . . . .	9	-	-	1	1	112	-	-	13	4
Fishing . . . . .	96	66	50	77	74	30	26	20	31	39

- Represents zero. <sup>1</sup> Includes types not shown separately. <sup>2</sup> Includes ore/bulk/oil carriers. <sup>3</sup> Includes passenger cargo ships.

Source: Lloyd's Register of Shipping, London, England, *Casualty Return*, annual.

**No. 1079. Merchant Fleets of the World: 1996**

[Vessels of 1,000 gross tons and over. As of Jan. 1. Specified countries have 100 or more ships]

YEAR AND COUNTRY OF REGISTRY, 1996	TOTAL		CONTAINER-SHIPS		BULK CARRIERS <sup>1</sup>		TANKERS		OTHERS	
	Number	Average age (yr.)	Number	Average age (yr.)	Number	Average age (yr.)	Number	Average age (yr.)	Number	Average age (yr.)
<b>World total</b> . . . . .	<b>25,608</b>	<b>18</b>	<b>1,734</b>	<b>12</b>	<b>5,474</b>	<b>16</b>	<b>6,080</b>	<b>17</b>	<b>12,320</b>	<b>19</b>
United States . . . . .	509	24	81	17	20	15	181	23	227	35
Privately-owned . . . . .	319	20	77	18	20	15	153	21	69	35
Government-owned . . . . .	190	33	4	28	-	-	28	27	158	42
Foreign . . . . .	25,099	18	1,653	13	5,454	16	5,899	17	12,093	19
Antigua and Barbuda . . . . .	357	12	63	7	8	15	11	17	275	13
Bahamas . . . . .	930	14	39	17	140	15	243	13	508	15
Brazil . . . . .	198	16	11	16	60	14	83	16	44	18
Bulgaria . . . . .	108	19	5	12	33	18	16	13	54	23
China: Mainland . . . . .	1,454	18	87	13	337	17	216	15	814	19
Cyprus . . . . .	1,473	16	101	10	566	17	161	14	645	15
Denmark (DIS) <sup>2</sup> . . . . .	333	9	60	8	12	6	82	8	179	11
Germany . . . . .	404	7	145	6	8	11	38	7	213	9
Greece . . . . .	952	18	34	21	461	16	275	17	182	21
Honduras . . . . .	237	27	4	31	11	25	23	29	199	27
Hong Kong . . . . .	239	10	40	11	131	8	21	12	47	13
India . . . . .	299	13	6	10	134	13	87	12	72	15
Indonesia . . . . .	432	18	5	19	17	14	112	17	298	19
Iran . . . . .	119	18	1	26	47	14	27	22	44	19
Italy . . . . .	389	16	14	6	37	12	220	17	118	17
Japan . . . . .	762	8	38	9	189	10	305	7	230	8
Korea (South) . . . . .	417	14	53	11	124	14	87	13	153	16
Liberia . . . . .	1,584	12	142	10	464	13	648	11	330	13
Malaysia . . . . .	254	14	24	13	39	8	83	10	108	31
Malta . . . . .	1,006	19	23	16	315	18	244	19	424	19
Netherlands . . . . .	406	9	31	10	6	13	66	10	303	9
Norway (NIS) <sup>2</sup> . . . . .	630	14	5	13	115	12	285	13	225	18
Panama . . . . .	3,692	13	289	12	924	12	826	12	1,653	15
Philippines . . . . .	516	14	14	16	224	8	60	21	218	18
Poland . . . . .	131	16	-	-	69	15	5	21	57	18
Romania . . . . .	220	16	2	8	39	18	10	15	169	15
Russia . . . . .	1,426	18	33	18	83	17	190	16	1,120	18
Saint Vincent . . . . .	640	21	18	17	113	20	89	24	420	21
Singapore . . . . .	655	13	90	14	111	10	280	13	174	17
Spain . . . . .	106	16	15	17	5	21	26	15	60	17
Sweden . . . . .	184	16	-	-	9	18	64	16	111	16
Taiwan . . . . .	202	11	85	12	53	8	19	8	45	18
Thailand . . . . .	251	22	7	21	28	17	67	23	149	22
Turkey . . . . .	475	17	1	4	160	18	68	20	246	16
Ukraine . . . . .	428	20	12	14	39	18	31	15	346	21
United Kingdom . . . . .	148	16	24	17	7	13	63	17	54	15
U.A.R.(Egypt) . . . . .	119	19	-	-	19	10	14	20	86	21
Vanuatu . . . . .	112	13	3	14	39	12	15	18	55	12
All others . . . . .	2,811	19	129	30	278	17	739	18	1,665	19

- Represents zero. <sup>1</sup> Includes bulk/oil, ore/oil, and ore/bulk/oil carriers. <sup>2</sup> International Shipping Registry which is an open registry under which the ship flies the flag of the specified nation but is exempt from certain taxation and other regulations.

Source: U.S. Maritime Administration, *Merchant Fleets of the World*, summary report, annual; and unpublished data.