

Civil Aircraft and Aircraft Engines: 2001

Issued September 2002

Summary

M336G(01)-13

Current
Industrial
Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: <http://www.census.gov/mcd/>. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: www.stat-usa.gov/. Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

SUMMARY OF FINDINGS. In 2001, the value of complete civil aircraft shipments increased by 8.2 percent to \$41.8 billion, from the 2000 level of \$38.6 billion. Shipments of complete civil aircraft engines increased by 3.4 percent to \$7.3 billion, from the 2000 level of \$7.0 billion.

The backlog of orders for aircraft, missiles, space vehicles, and engines, as of December 31, 2001, was \$220 billion. This was a 2.1-percent increase from the 2000 backlog of \$215 billion.

Net new orders received during 2001 were \$121 billion, a 13.3-percent decrease from the \$140 billion received in 2000. Net sales, receipts, and/or billings in 2001 totaled \$117 billion, a 7.3-percent increase from the \$109 billion reported in 2000.

Address inquiries concerning these data to Investment Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call James Hinckley, 301-763-4772.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-457-4673.

U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



Table 1. Quantity and Value of Shipments of Complete Civil Aircraft: 2001 and 2000
[Quantity in units. Value in thousands of dollars]

Product code	Product description	No. of cos.	2001		2000	
			Quantity	Value	Quantity	Value
33641130	Complete civil aircraft.....	29	4,541	41,765,995	5,162	38,585,086
	Civil aircraft (fixed wing, powered).....	14	2,947	41,234,385	3,278	38,092,555
3364113004	Unladen weight not exceeding 2,000 kg (4,409 lb).....	9	1,625	637,965	1,870	751,260
3364113007	Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb) 1/.....	6	(D)	(D)	(D)	(D)
3364113011	Unladen weight exceeding 15,000 kg (33,069 lb) 1/.....	2	1,322	40,596,420	1,408	37,341,295
	Helicopters (rotary wing).....	7	614	507,226	759	r/ 467,263
3364113014	Unladen weight not exceeding 2,000 kg (4,409 lb) 2/.....	6	(D)	(D)	(D)	(D)
3364113017	Unladen weight exceeding 2,000 kg (4,409 lb) 2/.....	3	614	507,226	759	467,263
3364113021	Other civil aircraft (nonpowered) and kits.....	9	980	24,384	1,125	25,268
33641230	Complete civil aircraft engines.....	9	13,571	7,281,540	15,626	r/ 7,044,228
3364123001	Spark-ignition reciprocating or rotary internal combustion 3/.... Turbojet and turbofan:	4	(D)	(D)	(D)	(D)
3364123004	Of a thrust not exceeding 25 (5,620 lb) kN 3/.....	1	(D)	(D)	(D)	(D)
3364123007	Of a thrust exceeding 25 (5,620 lb) kN 3/.....	3	(D)	(D)	(D)	(D)
	Turboshaft (turbo propeller):					
3364123011	Of a power not exceeding 1,100 kW (820 hp) 3/.....	2	(D)	(D)	(D)	(D)
3364123014	Of a power exceeding 1,100 kW (820 hp) 3/.....	3	(D)	(D)	(D)	(D)
3364123017	Other, including auxiliary power units excluding missiles and space engines 3/.....	1	13,571	7,281,540	15,626	7,044,228

D Withheld to avoid disclosing data for individual companies. kN Kilonewtons. kW Kilowatts. r/Revised by 5 percent or more from previously published data.

1/Product codes 3364113007 and 3364113011 are combined to avoid disclosing data for individual companies.

2/Product codes 3364113014 and 3364113017 are combined to avoid disclosing data for individual companies.

3/Product codes 3364123001, 3364123004, 3364123007, 3364123011, 3364123014, and 3364123017 are combined to avoid disclosing data for individual companies.

Table 2. Quantity and Value of Shipments of Complete Civil Aircraft by Month: 2001 and 2000
[Quantity in number of units. Value in thousands of dollars]

Year and month	Civil aircraft, unladen weight greater than 15,000 kg 1/			Helicopters (rotary wing)			Other civil aircraft (nonpowered)		
	Quantity		Value	Quantity		Value	Quantity		Value
2001									
January.....	192	r/	2,380,665	r/ 57	r/	34,815	r/ 79		1,926
February.....	225	r/	3,527,082	r/ 64	r/	35,907	r/ 80	r/	1,991
March.....	294		3,955,263	r/ 68	r/	36,482	r/ 82	r/	1,964
April.....	217		3,000,393	r/ 49		32,327	r/ 84	r/	2,060
May.....	266		3,817,892	r/ 45		31,678	r/ 84	r/	2,079
June.....	297		4,105,252	r/ 57	r/	65,180	r/ 84	r/	2,241
July.....	r/ 183		3,013,833	r/ 59	r/	43,588	r/ 82	r/	2,093
August.....	r/ 225		3,142,077	r/ 41	r/	32,602	r/ 84	r/	2,156
September.....	253		3,252,730	r/ 36	r/	35,150	r/ 80	r/	1,970
October.....	r/ 217		3,172,547	r/ 52	r/	39,953	r/ 80	r/	1,963
November.....	234		3,901,369	r/ 33	r/	29,734	r/ 81	r/	1,972
December.....	344		3,965,282	53		89,810	r/ 80		1,969
2000									
January.....	214		2,435,992	61	r/	34,955	94		2,033
February.....	251		2,331,332	90	r/	39,597	93		2,026
March.....	279		1,951,434	79	r/	36,568	97		2,119
April.....	268		3,774,412	51	r/	39,293	93		2,023
May.....	287		4,352,560	83	r/	37,758	93		2,103
June.....	335		3,696,197	57	r/	39,464	93		2,047
July.....	254		2,534,915	53	r/	38,032	93		2,111
August.....	256		3,211,714	r/ 53	r/	38,801	91		2,031
September.....	313		3,490,549	60	r/	40,018	100		2,423
October.....	215		2,797,435	63	r/	41,051	92		2,058
November.....	249		3,254,806	63	r/	43,682	91		2,068
December.....	357		4,261,209	r/ 46	r/	38,044	95		2,226

r/Revised by 5 percent or more from previously published data.

1/"Unladen weight not exceeding 2,000 kg (4,409 lb)" and "Unladen weight exceeding 2,000 kg (4,409 lb) but not exceeding 15,000 kg (33,069 lb)" are combined with "Unladen weight greater than 15,000 kg" to avoid disclosing data for individual companies.

Table 3. Quantity and Value of Shipments of Complete Civil Aircraft
Engines: 2001 and 2000
[Quantity in number of units. Value in thousands of dollars]

Year and month	Complete civil aircraft engines 1/	
	Quantity	Value
2001		
January.....	1,107	479,814
February.....	1,143	499,378
March.....	1,385	716,452
April.....	1,029	527,670
May.....	1,132	566,557
June.....	1,393	818,172
July.....	960	619,663
August.....	1,018	553,801
September.....	1,260	601,086
October.....	996	621,505
November.....	1,032	674,184
December.....	1,116	603,258
2000		
January.....	1,163	562,598
February.....	1,351	557,676
March.....	1,566	r/ 630,419
April.....	1,080	r/ 538,140
May.....	1,229	r/ 531,585
June.....	1,610	r/ 754,569
July.....	1,139	r/ 477,837
August.....	1,198	r/ 529,008
September.....	1,481	r/ 673,977
October.....	1,210	r/ 545,741
November.....	1,103	r/ 512,081
December.....	1,496	r/ 730,597

r/Revised by 5 percent or more from previously published data.

1/"Spark-ignition reciprocating or rotary internal combustion," "Turbojet and turboprop," and "Turbo propellers" are combined to avoid disclosing data for individual companies.

Table 4. Shipments, Exports, and Imports of Complete Civil Aircraft and Aircraft Engines: 2001
[Quantity in units. Value in thousands of dollars]

Product code 1/	Product description	Manufacturers' shipments		Exports of domestic merchandise 1/ 2/		Imports for consumption 1/ 3/	
		Quantity	Value (f.o.b. plant)	Quantity	Value at port	Quantity	Value
3364113004	Civil aircraft (fixed wing, powered): Unladen weight not exceeding 2,000 kg (4,409 lb).....	1,625	637,965	348	95,040	330	19,659
3364113011	Unladen weight exceeding 15,000 kg (33,069 lb) 4/.....	1,322	40,596,420	479	23,420,352	606	12,964,544
3364113017	Helicopters (rotary wing) 5/.....	614	507,226	309	169,687	229	420,505
33641230	Complete civil aircraft engines 6/.....	13,571	7,281,540	11,441	5,179,804	5,665	4,807,981

1/For comparison of North American Industry Classification System (NAICS)-based product codes with Schedule B export codes and and HTSUSA import codes, see contact at the beginning of this report.

2/Source: Census Bureau report EM 545, U.S. Exports.

3/Source: Census Bureau report IM 145, U.S. Imports for Consumption.

4/Product code 3364113007 is included with product code 3364113011 to avoid disclosing data for individual companies.

5/Product code 3364113014 is included with product code 3364113017 to avoid disclosing data for individual companies.

6/Product codes 3364123001, 3364123004, 3364123011, 3364123014, and 3364123017 are included with product code 33641230 to avoid disclosing data for individual companies.

Table 5. Value of Backlog of Orders, and Net Sales Reported by Manufacturers of Complete Aircraft, Space Vehicles, Missiles, and Selected Parts: 1993 to 2001
[Millions of dollars]

Year	Net new orders during year 1/	Net sales during year	Backlog, end of year
2001.....	121,395	117,343	219,556
2000.....	140,086	109,311	214,966
1999.....	115,257	124,181	188,409
1998.....	109,993	119,258	200,288
1997.....	118,993	114,946	218,951
1996.....	126,267	103,115	229,871
1995.....	109,109	102,797	202,638
1994.....	88,706	104,296	192,561
1993.....	79,770	109,926	211,814

1/These totals represents new orders received during the year, less terminations during the year.

Table 6. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicles, Missiles, and Selected Parts by the United States Government and Other Customers: 1997 to 2001
[Millions of dollars]

Year 1/	Net new orders 1/ (prime contracts and subcontracts)			Net sales, receipts, or billings			Backlog, end of year		
	Total	United States		Total	United States		Total	United States	
		Govern- ment 2/	Other customers		Govern- ment 2/	Other customers		Govern- ment 2/	Other customers
2001.....	121,395	57,220	64,175	117,343	45,484	71,859	219,556	73,379	146,177
2000.....	140,086	44,523	95,563	109,311	40,957	68,354	214,966	61,581	153,385
1999.....	115,257	48,586	66,671	124,181	45,128	79,052	188,409	63,029	125,380
1998.....	109,993	36,555	73,438	119,258	39,951	79,307	200,288	59,496	140,791
1997.....	118,993	48,194	70,799	114,946	51,374	63,572	218,951	67,662	151,290

1/These data represent new orders received during the year, less terminations during the year.

2/These data represent prime contracts only. All subcontracts, including those where it is known that the prime contract was let by the U.S. Government, are reported as subcontracts from "Other customers."

Note: Detail items may not add to total because of independent rounding.

Table 7. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicles, Missiles, and Selected Parts by Military and Nonmilitary: 1997 to 2001
[Millions of dollars]

Year 1/	Net new orders 1/ (prime contracts and subcontracts)			Net sales, receipts, or billings			Backlog, end of year		
	Total	Military	Nonmilitary	Total	Military	Nonmilitary	Total	Military	Nonmilitary
2001.....	121,395	63,503	57,892	117,343	47,230	70,113	219,556	90,128	129,428
2000.....	140,086	54,525	85,561	109,311	43,256	66,055	214,966	73,741	141,225
1999.....	115,257	49,696	65,561	124,181	49,690	74,491	188,409	68,379	120,029
1998.....	109,993	38,679	71,314	119,258	45,110	74,148	200,288	69,962	130,326
1997.....	118,993	47,802	71,192	114,946	50,648	64,298	218,951	78,870	140,082

1/These data represent new orders received during the year, less terminations during the year.

Note: Detail items may not add to total because of independent rounding.

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 2001 and 2000
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract 1/	Sub- contract 1/		
2001						
Total.....	48	121,395	120,123	1,272	117,343	219,556
Military.....	(NA)	63,503	63,503	(NA)	47,230	90,128
U.S. Government.....	37	53,688	53,688	(NA)	40,489	66,480
Other governments.....	22	9,815	9,815	(NA)	6,741	23,648
Nonmilitary.....	(NA)	57,892	56,620	1,272	70,113	129,428
U.S. Government.....	16	3,532	3,532	(NA)	4,995	6,899
Other customers.....	44	54,360	53,088	1,272	65,118	122,529
Complete aircraft and parts.....	(NA)	45,674	44,849	825	58,982	123,939
Military.....	(NA)	18,134	18,134	(NA)	18,170	37,679
Nonmilitary.....	(NA)	27,540	26,715	825	40,812	86,260
Aircraft engines and parts.....	(NA)	16,824	16,742	82	15,913	19,811
Military.....	(NA)	3,618	3,618	(NA)	3,957	3,262
Nonmilitary.....	(NA)	13,206	13,124	82	11,956	16,549
Missile systems and parts, excluding propulsion units.....	(NA)	5,211	5,211	(NA)	6,231	8,370
Military.....	(NA)	5,211	5,211	(NA)	6,231	8,370
Space vehicle systems and parts, excluding propulsion units.....	(NA)	5,112	5,112	(NA)	7,792	18,479
Military.....	(NA)	3,605	3,605	(NA)	4,270	8,277
Nonmilitary.....	(NA)	1,507	1,507	(NA)	3,522	10,202
U.S. Government.....	8	875	875	(NA)	1,405	2,046
Other customers.....	4	632	632	(NA)	2,117	8,156
Engines and/or propulsion units for missile systems and space vehicles, including parts 2/.....	(NA)	2,527	2,527	-	1,479	6,419
Military.....	(NA)	361	361	(NA)	382	795
Nonmilitary.....	(NA)	2,166	2,166	-	1,097	5,624
Other aircraft, space vehicle, and missile activities 3/.....	(NA)	8,383	8,225	158	10,218	9,205
Military.....	(NA)	4,089	4,089	(NA)	5,099	6,360
U.S. Government.....	(NA)	3,349	3,349	(NA)	4,142	3,929
Other governments.....	(NA)	740	740	(NA)	957	2,431
Nonmilitary.....	(NA)	4,294	4,136	158	5,119	2,845
Research and development (under contract).....	(NA)	22,216	22,208	8	3,717	21,572
Military.....	(NA)	21,468	21,468	(NA)	3,105	21,035
U.S. Government.....	21	21,165	21,165	(NA)	2,755	20,893
Other governments.....	8	303	303	(NA)	350	142
Nonmilitary.....	11	748	740	8	612	537
All other products and services.....	(NA)	15,448	15,249	199	13,011	11,761
Military.....	(NA)	7,017	7,017	(NA)	6,016	4,350
U.S. Government.....	16	6,192	6,192	(NA)	5,783	3,131
Other governments.....	8	825	825	(NA)	233	1,219
Nonmilitary.....	(NA)	8,431	8,232	199	6,995	7,411
U.S. Government.....	5	754	754	(NA)	937	1,601
Other customers.....	18	7,677	7,478	199	6,058	5,810
2000						
Total.....	48	140,086	139,690	396	109,311	214,966
Military.....	(NA)	54,525	54,525	(NA)	43,256	73,741
U.S. Government.....	37	40,044	40,044	(NA)	36,026	53,208
Other governments.....	22	14,481	14,481	(NA)	7,230	20,533
Nonmilitary.....	(NA)	85,561	85,165	396	66,055	141,225
U.S. Government.....	18	4,479	4,479	(NA)	4,931	8,373
Other customers.....	44	81,082	80,686	396	61,124	132,852

Table 8. Value of Net New Orders, Net Sales, and Backlog of Orders of Complete Aircraft, Space Vehicle, Missiles, and Selected Parts: 2001 and 2000
[Millions of dollars]

Product description	No. of cos.	Net new orders			Shipments (or net sales)	Backlog, end of year
		Total	Prime contract 1/	Sub- contract 1/		
Complete aircraft and parts.....	(NA)	81,775	81,655	120	57,188	137,592
Military.....	(NA)	27,440	27,440	(NA)	19,650	37,650
Nonmilitary.....	(NA)	54,335	54,215	120	37,538	99,942
Aircraft engines and parts.....	(NA)	15,080	14,965	115	12,485	18,899
Military.....	(NA)	3,956	3,956	(NA)	3,546	3,600
Nonmilitary.....	(NA)	11,124	11,009	115	8,939	15,299
Missile systems and parts, excluding propulsion units.....	(NA)	9,738	9,738	(NA)	5,567	9,389
Military.....	(NA)	9,738	9,738	(NA)	5,567	9,389
U.S. Government.....	6	8,873	8,873	(NA)	4,285	7,552
Other governments.....	3	865	865	(NA)	1,282	1,837
Space vehicle systems and parts, excluding propulsion units.....	(NA)	7,205	7,205	(NA)	8,164	21,395
Military.....	(NA)	2,310	2,310	(NA)	3,723	8,942
Nonmilitary.....	(NA)	4,895	4,895	(NA)	4,441	12,453
U.S. Government.....	8	2,646	2,646	(NA)	2,593	2,796
Other customers.....	4	2,249	2,249	(NA)	1,848	9,657
Engines and/or propulsion units for missile systems and space vehicles, including parts 2/.....	(NA)	1,425	1,414	11	1,872	5,499
Military.....	(NA)	493	493	(NA)	683	816
Nonmilitary.....	(NA)	932	921	11	1,189	4,683
Other aircraft, space vehicle, and missile activities 3/.....	(NA)	7,072	6,952	120	7,250	11,025
Military.....	(NA)	3,750	3,750	(NA)	3,171	7,360
U.S. Government.....	(NA)	3,078	3,078	(NA)	2,622	4,721
Other governments.....	(NA)	672	672	(NA)	549	2,639
Nonmilitary.....	(NA)	3,322	3,202	120	4,079	3,665
Research and development (under contract).....	(NA)	3,874	3,873	1	3,570	3,084
Military.....	(NA)	3,296	3,296	(NA)	2,864	2,668
U.S. Government.....	21	3,001	3,001	(NA)	2,602	2,479
Other governments.....	8	295	295	(NA)	262	189
Nonmilitary.....	11	578	577	1	706	416
All other products and services.....	(NA)	13,917	13,888	29	13,215	8,083
Military.....	(NA)	3,542	3,542	(NA)	4,052	3,316
U.S. Government.....	16	3,043	3,043	(NA)	3,352	2,720
Other governments.....	8	499	499	(NA)	700	596
Nonmilitary.....	(NA)	10,375	10,346	29	9,163	4,767
U.S. Government.....	5	644	644	(NA)	692	1,785
Other customers.....	18	9,731	9,702	29	8,471	2,982

- Represents zero. NA Not available.

1/"Net new orders, subcontract" are included with "New new orders, prime contract" to avoid disclosing data for individual companies.

2/Data for "Engines and/or propulsion units for space vehicles, including parts" are included with data for "Engines and/or propulsion units or missile systems, including parts."

3/Data for "Other missile activities" are included with data for "Other aircraft and space vehicles."

Note: Net new orders represent new orders received during the year, less terminations during the year. In some cases current backlog will not equal the backlog for the previous period, plus current net new orders, minus current shipments. This is primarily due to respondents changing their accounting procedures from one year to the next. Data for these respondents were not changed to force a balance. Significant imbalances due to reporting errors were investigated and corrected. Detail items may not add to total because of independent rounding.

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31–33 Manufacturing
- 42 Wholesale Trade
- 44–45 Retail Trade
- 48–49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns. Shipments to a company's own branches are

assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on civilian aircraft and aircraft engines have been collected by the Census Bureau since 1946. Data on the development and production of aerospace products have been collected by the Census Bureau since 1948. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.