

Section 18

Business Enterprise

This section relates to the place and behavior of the business firm and of business initiative in the American economy. It includes data on the number, types, and size of businesses; financial data of domestic and multinational corporations; business investment, expenditures, and profits; business sales and inventories; consumer cooperatives; minority-owned firms; mergers, acquisitions, and business failures.

The principal sources of these data are the *Survey of Current Business*, published by the Bureau of Economic Analysis (BEA); the *Federal Reserve Bulletin*, issued by the Board of Governors of the Federal Reserve System; the annual *Statistics of Income* reports of the Internal Revenue Service (IRS); *The Failure Record Through (Year)*, issued by Dun & Bradstreet, Inc., New York; and *Fortune* and *The Fortune Directory*, issued by Fortune, New York. Other sources are publications of the Securities and Exchange Commission (SEC), the Federal Trade Commission (FTC), and the Administrative Office of the United States Courts. For a comprehensive list of reports, see "Business" in Appendix IV of this book.

Business firms.—A business firm is generally defined as a business organization under a single management and may include one or more plants or outlets; a firm doing business in more than one industry is classified by industry according to the major activity of the firm as a whole. The IRS concept of business firm relates primarily to the legal entity used for tax reporting purposes. (See page 792 for explanation of difference between "firm" or "company" and "establishment.") The IRS *Statistics of Income* reports present data separately for sole proprietorships, partnerships, and corporations. While many corporations file consolidated tax returns (i.e., one return for the parent firm and all its subsidiaries), most corporate tax returns represent individual corporations, some of which are affiliated through common ownership or control with other corporations filing separate returns.

Corporate assets and liabilities.—In its annual report, *Statistics of Income, Corporation Income Tax Returns*, the IRS presents balance sheet and income data for all active U.S. corporations. The *Quarterly Financial Report for Manufacturing Corporations*, published by the FTC, presents current quarterly income account and balance sheet data for manufacturing industries. In a quarterly compilation, *Working Capital of U.S. Nonfinancial Corporations*, the SEC publishes data on components of current assets and liabilities of all nonfinancial U.S. corporations. Broker-dealer financial data are detailed in the *Annual Report* of the SEC.

Corporate income, profits, dividends, and taxes.—Several agencies, among them the IRS and the BEA, compile corporate income account data. These data, however, are not comparable because of differing methods of compilation.

The IRS publishes financial data for all business enterprises, based on income tax returns filed by sole proprietorships, partnerships, and corporations. These data appear in *Statistics of Income—Business Income Tax Returns* and *Corporation Income Tax Returns*. Supplemental reports published periodically present data on foreign income and taxes reported by U.S. corporations.

The corporate data issued by the BEA are a part of its national income and product accounts and are defined as required for purposes of national income estimation. The primary sources of data for the estimates of profits, taxes, dividends, and undistributed profits are the original corporate tax returns submitted to the IRS. Various adjustments of the *Statistics of Income* data are required by the national income treatment,

particularly with respect to depletion, capital gain or loss, treatment of bad debts, measurement of income received from abroad, and intercorporate dividends, and because the original corporate income statements do not represent the final stage of information. BEA's corporate profits data also include the net earnings of several federally sponsored credit agencies which are not included in *Statistics of Income*.

Sources and uses of corporate funds.—These data indicate capital requirements of corporations and the manner in which they are financed. Sources of funds are equal to their uses. Certain discrepancies, however, interfere with this equality due to omission of such factors as (1) money accruing to corporations from an excess of sales over purchases of used plant and equipment, (2) transactions in securities held as permanent investments except public offerings, and (3) net purchases of land. Also, the balance sheet data upon which many of the financial flow estimates are based are not fully comparable with the tax-return based estimates of internal sources, or the establishment series underlying the figures on inventory change.

Plant and equipment expenditures.—Estimates of actual and expected expenditures for new plant and equipment in the United States by private, nonagricultural business firms are based on quarterly sample surveys conducted jointly by the Bureau of Economic Analysis and the Interstate Commerce Commission.

The sample was designed for complete coverage of all companies with gross assets of \$50 million or more, and a random selection of companies with assets of less than \$50 million. There are approximately 10,000 firms in the sample, with response rates varying from 70 to 75 percent. In 1972, the responding companies accounted for 68 percent of total capital expenditures in the United States.

For quarterly data, see current issues of the *Survey of Current Business*; for discussion of coverage, concepts, and methodology, see the January 1970 issue for actual expenditures and the February 1970 issue for expectations.

Business sales and inventories.—Business sales and inventories as defined by the BEA are the sum of data for manufacturing, merchant wholesalers, and retail trade. Sales are estimated aggregate values and inventories are book values at the end of the period. Sales signifies sales or shipments for retail and wholesale trade and billings or shipments for manufacturing. Trade inventories are valued at cost of merchandise on hand, while manufacturers' inventories are valued at approximate current costs or at book values, as reported by the manufacturer. Inventories data for manufacturing (see tables 910 and 911) are based on data from the *Census of Manufactures* and the *Annual Survey of Manufactures*. Data for manufacturing also appear in *Manufacturers' Shipments, Inventories, and Orders*, published by the Bureau of the Census in its Current Industrial Reports, series M3-1.

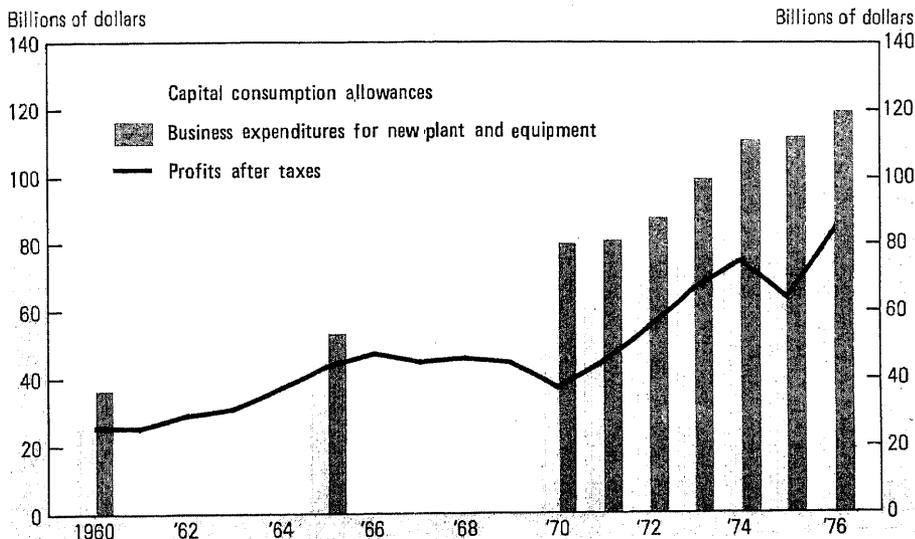
To ascertain net physical change in nonfarm inventories, book values of beginning and ending inventories of each year are expressed in terms of constant base year prices by means of selected Bureau of Labor Statistics wholesale price indexes appropriate to each industry. Net increment in deflated book value figures is then converted to a current price basis by index ratios or current prices to base year prices.

Industrial and commercial failures.—These data, collected by Dun & Bradstreet, are available by years since 1857 and by months since 1900. The number of failures includes concerns involved in court proceedings or voluntary actions likely to end in loss to creditors; discontinuances with outside obligations paid in full are not included. Data cover manufacturers, wholesalers, retailers, building contractors, and certain types of commercial service, but do not encompass finance, insurance, and real estate companies; railroads and steamship lines; and amusement enterprises. Failures data are published monthly in the monthly *Failure Report* by the Business Economics Division of Dun & Bradstreet, Inc.

Historical statistics.—Tabular headnotes provide cross-references, where applicable, to *Historical Statistics of the United States, Colonial Times to 1970*. See Appendix I.

Fig. 18-1. BUSINESS EXPENDITURES, PROFITS, AND CAPITAL CONSUMPTION ALLOWANCES: 1960 TO 1976

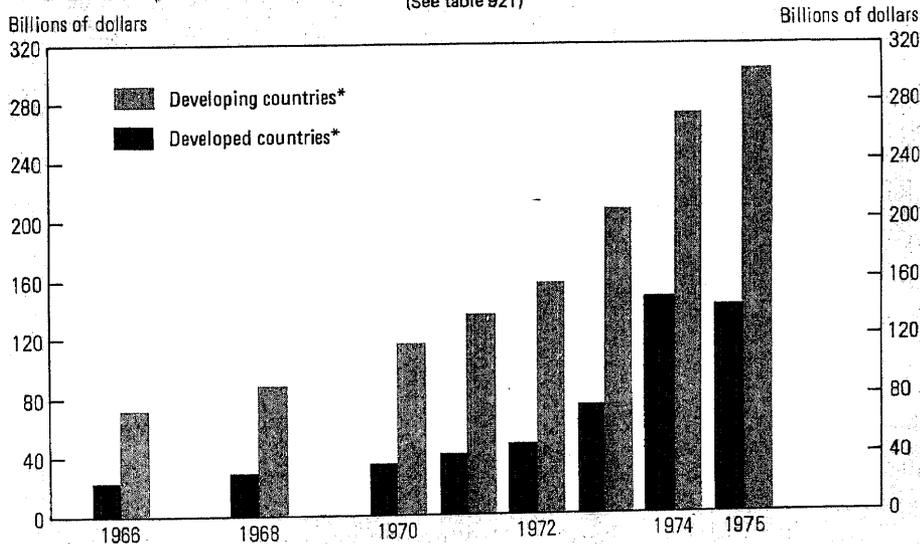
(See tables 909 and 927)



Source: Chart prepared by U.S. Bureau of the Census. Data from U.S. Bureau of Economic Analysis.

Fig. 18-2. U.S. MULTINATIONAL COMPANIES — SALES BY MAJORITY-OWNED FOREIGN AFFILIATES: 1966 TO 1975

(See table 921)



*See table 1507 for list of developed and developing countries.

Source: Chart prepared by U.S. Bureau of the Census. Data from U.S. Bureau of Economic Analysis.

NO. 891. NEW BUSINESS CONCERNS AND BUSINESS FAILURES: 1950 TO 1976

[See also *Historical Statistics, Colonial Times to 1970*, series V 21-24]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976
Business formations:										
Index, net formations ¹.....(1967=100).....	93.1	99.1	92.4	98.6	108.0	117.9	117.9	112.4	108.9	117.6
New incorporations ².....1,000.....	93	140	183	204	264	317	329	319	326	376
Failures, number³.....1,000.....	9.2	11.0	15.4	13.5	10.7	9.6	9.3	9.9	11.4	9.6
Rate per 10,000 concerns.....	34	42	57	53	44	38	36	38	43	35

¹ Source: U.S. Bureau of Economic Analysis. ² Prior to 1960, excludes Alaska. ³ See footnote 2, table 895. Source: Except as noted, Dun & Bradstreet, Inc., New York, N. Y., *Monthly New Business Incorporation Report*.

NO. 892. PROPRIETORSHIPS, PARTNERSHIPS, AND CORPORATIONS—NUMBER, RECEIPTS, AND PROFIT: 1950 TO 1974

[Figures are estimates based on samples for all years for proprietorships, beginning 1955 for corporations, and 1960 for partnerships. See also *Historical Statistics, Colonial Times to 1970*, series V 1-12]

ITEM	1950	1955	1960	1965	1970	1971	1972	1973	1974
Number.....1,000.....	(NA)	(NA)	11,172	11,416	12,001	12,437	12,978	13,592	13,902
Receipts¹.....bil. dol.....	(NA)	(NA)	1,095	1,469	2,082	2,261	2,551	2,994	3,557
Net profit (less loss)².....bil. dol.....	(NA)	(NA)	73	111	109	123	145	176	201
Proprietorships, number³.....1,000.....	6,865	8,239	9,090	9,078	9,400	9,745	10,173	10,648	10,874
Business receipts ¹.....bil. dol.....	(NA)	139	171	199	238	255	276	311	328
Net profit (less loss) ².....bil. dol.....	15	18	21	28	33	34	39	47	46
Partnerships, number.....1,000.....	(NA)	(NA)	941	914	936	959	992	1,039	1,062
Total receipts ¹.....bil. dol.....	(NA)	(NA)	74	75	93	100	104	125	139
Net profit (less loss) ².....bil. dol.....	(NA)	(NA)	8	10	10	9	9	9	9
Corporations, number.....1,000.....	629	807	1,141	1,424	1,665	1,733	1,813	1,905	1,966
Total receipts ¹.....bil. dol.....	458	642	849	1,195	1,751	1,906	2,171	2,558	3,090
Percent of all firms receipts.....	(NA)	(NA)	77.5	81.3	84.1	84.3	85.1	85.4	86.9
Net profit (less loss) ².....bil. dol.....	43	47	44	74	66	80	97	120	146

NA Not available. ¹ See footnote 1, table 895. ² See footnote 3, table 893. ³ Individually owned businesses and farms. ⁴ Total taxable receipts before deduction of cost of goods sold, cost of operations, and net loss from sales of property other than capital assets. Includes nontaxable interest; excludes all other nontaxable income. See headnote, table 895.

⁵ Beginning 1965, includes income from related foreign corporations considered received for tax purposes only.

NO. 893. PROPRIETORSHIPS, PARTNERSHIPS, AND CORPORATIONS—NUMBER, RECEIPTS, AND NET PROFIT, BY INDUSTRY: 1974

[Figures are estimates based on sample of unaudited tax returns filed for accounting periods ending between July 1 of year shown and June 30 of following year. Proprietorships are individually-owned businesses and farms. See *Historical Statistics, Colonial Times to 1970*, series V 42-53, for number of active corporations]

INDUSTRY	NUMBER ¹ (1,000)			BUSINESS RECEIPTS ^{1 2} (bil. dol.)			NET PROFIT (less loss) ^{1 3} (bil. dol.)		
	Proprietorships	Active partnerships	Active corporations	Proprietorships	Active partnerships	Active corporations	Proprietorships	Active partnerships	Active corporations
Total.....	10,874	1,062	1,966	328.3	136.7	3008.8	45.9	8.9	146.0
Agric., forestry, and fishing.....	3,385	123	53	66.9	12.5	24.2	7.5	1.2	.4
Mining.....	57	14	16	3.0	3.5	62.9	4	(2)	25.9
Construction.....	896	63	186	32.7	11.4	133.7	4.6	.9	1.8
Manufacturing.....	213	31	212	9.1	7.5	1,252.4	1.1	.6	72.5
Transportation, and public utilities ⁵	360	14	80	10.3	2.1	214.2	1.3	(2)	8.7
Wholesale and retail trade.....	2,200	196	602	142.3	43.4	906.9	10.0	2.8	22.6
Wholesale.....	337	28	215	33.8	15.8	491.7	2.9	1.0	16.3
Retail.....	1,862	167	387	106.5	27.6	415.1	6.9	1.9	6.3
Finance, insurance, real estate.....	739	430	425	11.6	29.1	303.2	3.6	-3.6	11.5
Services.....	2,944	191	389	51.3	27.1	110.5	17.2	7.0	2.5

² Less than \$50 million. ¹ Includes business not allocable to individual industries. ² See headnote and footnote 1, table 895.

³ Net profit (or income) is defined differently by legal form of organization, basically as follows: (a) Proprietorships: Total taxable receipts less total deductions, including cost of sales and operations; investment and other income are excluded; (b) Partnerships: Total taxable receipts less total deductions, including cost of sales and operations; investment and other income, except capital gains, are included; (c) Corporations: Total taxable receipts less total deductions, including cost of sales and operations; investment and other income, such as capital gains and income from foreign corporations considered received for tax purposes only, are included; net profit is before income tax. ⁴ Total receipts rather than business receipts are shown for finance industries.

⁵ Includes sanitary services.

Source of tables 892 and 893: U.S. Internal Revenue Service, preliminary reports, *Statistics of Income, Business Income Tax Returns*, annual, and *Statistics of Income, Corporation Income Tax Returns*, annual.

NO. 894. PROPRIETORSHIPS, PARTNERSHIPS, AND CORPORATIONS—NUMBER AND BUSINESS RECEIPTS, BY SIZE OF RECEIPTS: 1965 TO 1974

[See headnote, tables 893 and 895, and *Historical Statistics, Colonial Times to 1970*, series V 1-12]

SIZE CLASS OF RECEIPTS	1965		1970		1974							
	Number (1,000)	Receipts (bil. dol.)	Number (1,000)	Receipts (bil. dol.)	TOTAL		NUMBER (1,000)			RECEIPTS (bil. dol.)		
					Number (1,000)	Receipts (bil. dol.)	Proprietorships	Partnerships ¹	Corporations ¹	Proprietorships	Partnerships ¹	Corporations ¹
Total	11,417	1,393	12,001	2,036	13,902	3,320	10,874	1,062	1,966	328.3	137.2	2,854.8
Under \$25,000 ²	8,190	51	8,200	51	9,141	54	8,136	538	467	48.2	3.8	2.2
\$25,000-\$49,999.....	1,209	42	1,302	46	1,506	52	1,185	139	182	42.2	5.0	5.2
\$50,000-\$99,999.....	845	58	1,000	71	1,228	85	833	137	258	58.6	9.9	16.8
\$100,000-\$199,999.....	536	73	661	93	1,512	315	454	117	639	62.7	16.7	146.0
\$200,000-\$499,999.....	359	108	474	146									213	89	62.8	27.0
\$500,000-\$999,999.....	138	94	181	126	241	163	37	25	179	25.0	17.3	120.4
\$1,000,000 or more.....	139	969	182	1,503	261	2,651	14	17	242	28.8	57.5	2,564.2
PERCENT DISTRIBUTION												
Under \$25,000 ²	71.7	3.7	68.3	2.5	65.8	1.6	74.8	50.7	23.8	14.7	2.8	.1
\$25,000-\$49,999.....	10.6	3.0	10.8	2.3	10.8	1.6	10.9	13.1	9.3	12.8	3.6	.2
\$50,000-\$99,999.....	7.4	4.1	8.3	3.5	8.8	2.6	7.7	12.9	13.1	17.9	7.2	.6
\$100,000-\$199,999.....	4.7	5.2	5.5	4.6	10.9	9.5	4.2	11.0	32.5	19.1	12.2	5.1
\$200,000-\$499,999.....	3.1	7.7	4.0	7.2									2.0	8.4	19.1	19.7
\$500,000-\$999,999.....	1.2	6.7	1.5	6.2	1.7	4.9	.3	2.4	9.1	7.6	12.6	4.2
\$1,000,000 or more.....	1.2	69.5	1.5	73.8	2.0	79.8	.1	1.6	12.3	8.8	41.9	89.8

¹ Active firms only. ² Includes firms with no receipts.

Source: U.S. Internal Revenue Service, *Statistics of Income, Business Income Tax Returns*, annual, and *Statistics of Income, Corporation Income Tax Returns*, annual.

NO. 895. PROPRIETORSHIPS AND PARTNERSHIPS—NUMBER AND BUSINESS RECEIPTS, BY STATES: 1974

[Because of minor variations in estimating techniques for deriving these data, totals differ slightly from those shown in other IRS tables in this section. See headnote, table 893]

STATE	PROPRIETORSHIPS		PARTNERSHIPS		STATE	PROPRIETORSHIPS		PARTNERSHIPS	
	Number (1,000)	Receipts ¹ (mil. dol.)	Number (1,000)	Receipts ¹ (mil. dol.)		Number (1,000)	Receipts ¹ (mil. dol.)	Number (1,000)	Receipts ¹ (mil. dol.)
U.S.	10,865	328,169	1,062	136,979	S.A.—Con.				
					W. Va.....	63	1,752	7	455
N.E.	456	13,681	46	5,873	N.C.....	280	7,453	22	2,527
Maine.....	59	1,840	3	257	S.C.....	113	3,376	10	1,079
N.H.....	39	1,035	3	200	Ga.....	214	7,256	22	2,479
Vt.....	29	837	2	160	Fla.....	368	10,142	39	3,740
Mass.....	190	5,662	17	2,674					
R.I.....	28	862	3	195	E.S.C.	793	21,026	62	8,178
Conn.....	111	3,445	18	2,387	Ky.....	255	5,755	17	1,915
M.A.	1,213	38,799	167	27,226	Tenn.....	262	6,797	23	3,268
N.Y.....	559	15,801	84	17,062	Ala.....	157	4,680	12	1,707
N.J.....	214	7,136	35	3,556	Miss.....	119	3,844	10	1,288
Pa.....	440	15,862	48	6,608					
E.N.C.	1,956	60,154	178	21,768	W.S.C.	1,368	41,875	121	15,632
Ohio.....	474	13,880	39	4,803	Ark.....	145	4,146	11	1,086
Ind.....	323	8,978	19	2,204	La.....	157	5,270	12	2,067
Ill.....	552	18,070	62	8,412	Okl.....	239	6,807	14	1,895
Mich.....	348	11,519	39	4,531	Tex.....	827	25,652	84	10,584
Wis.....	259	7,707	19	1,818					
W.N.C.	1,562	47,428	94	10,891	Mt.	591	17,749	58	6,416
Minn.....	298	8,176	20	2,092	Mont.....	73	2,170	5	446
Iowa.....	306	10,867	19	2,287	Idaho.....	71	2,396	5	780
Mo.....	362	9,124	22	2,578	Wyo.....	29	935	3	390
N.Dak.....	88	2,879	4	462	Colo.....	159	4,701	18	1,729
S.Dak.....	97	3,137	5	440	N.Mex.....	63	1,882	6	580
Nebr.....	176	6,259	11	1,409	Ariz.....	99	3,082	10	1,361
Kans.....	235	6,986	13	1,623	Utah.....	68	1,613	7	783
					Nev.....	29	970	4	407
S.A.	1,439	40,578	141	15,460	Pac.	1,488	46,882	196	25,535
Del.....	20	655	2	285	Wash.....	195	5,812	22	2,164
Md.....	155	4,385	20	2,824	Oreg.....	151	4,238	16	1,761
D.C.....	19	306			19	2,071	Calif.....	1,081	35,359	150	20,637
Va.....	207	5,253			Alaska.....	22	666	3	242
					Hawaii.....	39	807	5	731

¹ Receipts from sales and services less allowances, rebates, and returns; excludes capital gains or losses, and investment income not associated with the taxpayer's business.

Source: U.S. Internal Revenue Service, *Statistics of Income, Business Income Tax Returns*, annual.

NO. 896. PROPRIETORSHIPS, PARTNERSHIPS, AND CORPORATIONS—NUMBER, RECEIPTS, AND NET PROFIT, BY INDUSTRY AND SIZE OF BUSINESS RECEIPTS: 1974

 [Number in thousands; receipts and profit in millions of dollars. See headnote, table 893. See *Historical Statistics, Colonial Times to 1970*, series V 42-53, for number of active corporations.]

ITEM	PROPRIETORSHIPS ¹			ACTIVE PARTNERSHIPS			ACTIVE CORPORATIONS		
	Under \$50,000 ²	\$50,000-\$99,999	\$100,000 or more	Under \$100,000 ²	\$100,000-\$499,999	\$500,000 or more	Under \$500,000	\$500,000-\$999,999	\$1,000,000 or more
All industrial divisions:³									
Number.....	9,321	833	719	814	206	42	1,545	179	242
Business receipts ⁴	90,346	58,633	179,284	18,700	43,699	74,757	180,793	125,157	2,702,842
Net profit ⁵	17,241	12,328	16,286	-1,868	5,105	5,627	2,090	3,674	140,234
Agriculture, forestry, and fishing:									
Number.....	3,062	213	110	93	26	4	46	4	4
Business receipts ⁴	28,410	14,643	23,813	2,399	5,290	4,833	5,511	2,624	16,048
Mining:									
Number.....	48	3	6	11	2	1	12	2	2
Business receipts ⁴	400	237	2,354	152	457	2,983	1,137	1,042	60,686
Construction:									
Number.....	741	79	77	45	15	3	137	23	26
Business receipts ⁴	8,665	5,509	18,569	1,452	3,063	6,921	20,255	16,149	97,272
Manufacturing:									
Number.....	170	22	21	21	8	2	123	30	53
Business receipts ⁴	1,938	1,568	5,611	590	1,566	5,399	19,723	21,036	1,211,606
Transport and public utilities:⁶									
Number.....	322	22	15	11	3	1	65	7	8
Business receipts ⁴	4,418	1,564	4,268	317	570	1,212	7,740	4,903	201,575
Wholesale and retail trade:									
Number.....	1,547	269	384	111	69	15	401	83	119
Business receipts ⁴	18,091	19,311	104,893	4,047	15,253	24,277	67,180	58,230	781,497
Finance, insurance, and real estate:									
Number.....	697	27	15	383	38	9	397	11	17
Business receipts ^{4,7}	6,003	1,822	3,744	5,976	8,120	15,014	20,435	7,702	275,061
Services:									
Number.....	2,659	195	89	138	45	8	357	19	13
Business receipts ⁴	21,941	13,754	15,646	3,760	9,369	14,101	38,597	13,325	58,576

¹ Individually owned businesses and farms.

² Includes businesses without receipts.

³ Includes businesses not allocable to individual industries.

⁴ See footnote 1, table 895.

⁵ Less loss. See footnote 3, table 895.

⁶ Includes sanitary services.

⁷ For partnerships and corporations, total receipts rather than business receipts were used as the size classifier and for the amounts shown.

 Source: U.S. Internal Revenue Service, *Statistics of Income, 1974, Business Income Tax Returns*, annual; and *Statistics of Income, 1974, Corporation Income Tax Returns*, annual.

NO. 897. WOMEN-OWNED FIRMS—NUMBER AND RECEIPTS, BY INDUSTRY: 1972

INDUSTRY DIVISION	FIRMS (1,000)			RECEIPTS (bil. dol.)		
	All firms ¹	Women-owned		All receipts	Women-owned	
		Number of firms ¹	Percent of all firms		Receipts	Percent of all firms
All industries, total.....	8,730	402	4.6	2,381.2	8.1	.3
Construction.....	1,020	15	1.5	146.2	.5	.3
Manufacturing.....	437	8	1.8	875.3	.3	(z)
Transportation and public utilities.....	² 432	7	1.6	159.5	.1	.1
Wholesale trade.....	560	5	0.9	349.4	.6	.2
Retail trade.....	2,381	133	5.6	474.9	4.2	.9
Finance, insurance, and real estate.....	³ 1,318	37	2.8	252.8	.5	.2
Selected services.....	² 2,212	151	6.3	95.5	1.5	1.6
Other industries and industries not classified....	³ 370	45	12.2	27.6	.4	1.4

^z Less than .05 percent. ¹ Based on data from U.S. Internal Revenue Service, preliminary report, *Statistics of Income, Business Income Tax Returns, 1972*.

² Excludes railroads. ³ Adjusted to exclude legal services and architectural and engineering services out-of-scope of women-owned businesses.

 Source: U.S. Bureau of the Census, *Women-Owned Businesses, 1972*.

Minority-Owned Business Firms—Consumer Cooperatives 553

No. 898. MINORITY-OWNED BUSINESS FIRMS—NUMBER AND RECEIPTS, BY INDUSTRY: 1972

[Number and employment in thousands and receipts in billions of dollars, except as indicated. Based on a mail canvass, various published and unpublished source listings, and personal contacts with knowledgeable community and governmental representatives, and records of the Internal Revenue Service and the Social Security Administration. "Minority" identified to include the following groups: Black, Chinese, Japanese, Puerto Rican, Mexican or Latin American, American Indian, Filipino, Korean, Hawaiian, etc.]

INDUSTRY	All U.S. firms	FIRMS OWNED BY—					PERCENT CHANGE FROM 1969			
		All minorities	Percent minorities of all firms	Black	Spanish origin	Other	All minorities	Black	Spanish origin	Other
Number of firms, total ¹	8,730	382	4.4	195	120	67	19	20	20	14
With paid employees.....	(x)	76	(x)	32	29	15	-16	-17	-12	-22
With no paid employees.....	(x)	306	(x)	163	91	52	32	31	36	31
Construction.....	1,020	40	3.9	20	17	3	34	24	67	-11
Manufacturing.....	437	9	2.1	4	4	1	18	38	-	19
Transport, and public util. ²	432	30	6.9	22	6	2	28	30	29	3
Wholesale trade.....	560	7	1.3	2	3	2	31	26	41	20
Retail trade.....	2,381	121	5.1	57	42	22	25	25	26	22
Finance, insurance, real estate.....	1,318	19	1.4	8	6	5	-15	5	-22	-31
Selected services.....	2,212	120	5.4	68	32	20	19	22	11	21
Business receipts, total ¹	2,381.2	16.6	.7	7.2	5.3	4.1	56	60	58	46
Firms with paid employees.....	(x)	12.1	(x)	5.1	3.7	3.3	35	31	32	32
With no paid employees.....	(x)	4.5	(x)	2.1	1.6	.8	163	152	193	143
Construction.....	146.2	1.7	1.2	.8	.6	.3	84	77	125	38
Manufacturing.....	875.3	1.3	.1	.5	.5	.3	95	77	126	88
Transport, and public util. ²	159.5	.7	.4	.4	.2	1	79	102	50	56
Wholesale trade.....	349.4	1.8	.5	.8	.5	.5	91	98	91	82
Retail trade.....	474.9	7.5	1.6	2.9	2.5	2.1	44	51	43	37
Finance, insurance, real estate.....	252.8	.9	.4	.5	.2	.2	59	59	64	54
Selected services.....	95.5	2.1	2.2	1.1	.6	.4	47	59	30	49
Employment, total ¹	56,466	456	.8	197	150	109	23	29	18	20
Construction.....	3,398	57	1.7	30	21	6	63	66	78	23
Manufacturing.....	18,696	54	.3	20	21	13	73	66	80	76
Transport, and public util. ²	3,895	19	.5	11	5	3	40	42	42	28
Wholesale trade.....	4,075	19	.5	8	6	5	44	37	39	63
Retail trade.....	11,648	173	1.5	58	59	56	3	6	-	10
Finance, insurance, real estate.....	3,901	28	.7	18	4	6	91	99	74	85
Selected services.....	9,576	98	1.0	49	31	18	21	29	15	12

- Represents zero. X Not applicable.
¹ Includes industries not shown separately. ² Excludes railroads.
 Source: U.S. Bureau of the Census, *Minority-Owned Businesses: 1972*.

No. 899. CONSUMER COOPERATIVES, BY TYPE OF ASSOCIATION: 1965, 1970, AND 1975

TYPE OF ASSOCIATION	1965			1970			1975		
	Associations	Members	Business ¹	Associations	Members	Business ¹	Associations	Members	Business ¹
Credit unions ¹	22,064	16,756	8,098	23,656	22,813	14,106	22,616	31,321	28,169
Electric power cooperatives.....	885	4,984	781	875	5,789	1,195	870	7,272	2,754
Rural telephone cooperatives ²	219	485	48	235	609	86	239	783	168
Nonprofit prepayment health plans ³	569	8,684	582	4,457	10,532	1,016	5,383	11,800	2,055
Community.....	43	3,400	216	440	4,900	457	5,36	6,058	986
Employer-employee-union.....	507	5,068	366	418	5,600	559	5,308	5,595	1,032
Private group medical clinic.....	19	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	147	37
Farm supply cooperatives ⁴	6,763	(NA)	2,910	6,209	(NA)	3,871	75,554	(NA)	8,661
Principally in farm supply.....	3,085	3,251	2,707	2,775	3,222	2,755	2,729	2,971	8,055
Producers' goods.....	4,400+	(NA)	1,851	4,200+	(NA)	2,399	73,800+	(NA)	5,691
Petroleum products.....	2,773	(NA)	643	2,774	(NA)	862	72,624	(NA)	1,675
Meats and groceries.....	775	(NA)	60	717	(NA)	83	7,486	(NA)	100
Miscellaneous.....	4,800+	(NA)	356	4,800+	(NA)	527	74,200	(NA)	1,195

NA Not available. ¹ 1965, U.S. Social Security Administration; 1970 and 1975, National Credit Union Administration. "Business" refers to loans outstanding.
² Rural Electrification Administration. Cooperatives currently borrowing from REA, number of subscribers at end of year, annual revenues.
³ U.S. Social Security Administration. Independent plans only. Estimated enrollees and annual income of plans. Enrollment is for most frequent type of benefit X-ray and lab exams. ⁴ 1968 data. ⁵ 1972 data.
⁶ Data cover fiscal years 1964-1965, 1969-1970, and 1974-1975 preliminary. Since many cooperatives do more than one type of business, totals are less than would be obtained by adding number of cooperatives handling individual items or performing individual services. Figures for members are estimated; some persons hold more than one membership. ⁷ 1974 data.
 Source: Except as noted, U.S. Dept. of Agriculture, Farmer Cooperative Service, unpublished data.

NO. 900. SELECTED BUSINESS INDEXES: 1960 TO 1976

[1967=100]

ITEM	1960	1965	1970	1971	1972	1973	1974	1975	1976, prel.
Industrial production.....	66.2	89.8	107.8	109.6	119.7	129.8	129.3	117.8	129.8
Market groupings:									
Products, total.....	66.4	88.2	106.9	108.5	118.0	127.1	127.3	119.3	129.3
Final, total.....	65.3	87.6	105.3	106.3	115.7	124.4	125.1	118.2	127.3
Consumer goods.....	70.7	92.6	109.0	114.7	124.4	131.5	128.9	124.0	136.8
Equipment.....	58.1	80.7	100.1	94.7	103.8	114.5	120.0	110.2	114.3
Intermediate.....	66.1	92.4	112.9	116.7	126.5	137.2	135.3	123.1	136.8
Materials.....	66.4	91.0	109.2	111.3	122.3	133.9	132.4	115.5	130.5
Industry groupings, manufacturing.....	65.4	89.7	106.4	108.2	118.9	129.8	129.4	116.3	129.4
Capacity utilization (percent) ¹ in—									
Manufacturing.....	80.1	89.5	79.2	78.0	83.1	87.5	84.2	73.6	80.1
Industrial materials industries.....	(NA)	87.3	84.3	83.1	88.0	92.4	87.7	73.6	80.3
Construction contracts.....	68.6	93.2	123.1	145.4	166.1	183.3	173.9	162.3	190.2
Nonagricultural employment, total.....	82.4	92.3	107.7	108.1	111.9	116.7	119.1	116.9	120.6
Goods-producing, total.....	87.6	94.0	101.0	98.0	101.2	106.3	106.2	96.9	100.3
Manufacturing, total.....	86.4	92.9	99.5	95.5	98.2	103.2	103.1	94.3	97.5
Manufacturing, production workers.....	88.0	93.9	98.0	94.1	97.5	103.2	102.1	91.3	95.2
Service-producing.....	79.5	91.4	111.3	113.6	117.8	122.5	126.1	127.8	131.7
Personal income, total ²	63.8	85.7	127.9	137.1	150.4	168.0	184.3	200.0	220.7
Wages and salary disbursements.....	63.6	84.7	127.8	135.5	148.3	164.0	178.9	188.5	208.6
Manufacturing.....	66.9	86.1	118.0	119.5	130.8	146.3	157.6	157.3	177.6
Disposable personal income.....	64.2	86.7	126.0	136.4	147.2	165.9	180.8	199.2	217.8
Retail sales.....	70.2	90.2	119.4	130.1	142.4	160.2	171.2	186.0	206.6
Prices:									
Consumer.....	88.7	94.5	116.3	121.3	125.3	133.1	147.7	161.2	170.5
Wholesale.....	94.9	96.6	110.4	113.9	119.1	134.7	160.1	174.9	183.0

¹ 1967 output=100. For explanation of capacity utilization in manufacturing, see table 1362.² For explanation, see text, p. 426.Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, monthly.

NO. 901. FEDERAL GOVERNMENT LOANS TO ALL SMALL BUSINESSES AND TO MINORITY-OPERATED SMALL BUSINESSES: 1968 TO 1976

[For years ending June 30. A small business must be independently owned and operated, must not be dominant in its particular industry, and must meet standards set by the Small Business Administration as to its annual receipts or number of employees]

ITEM	1968-1976 cum.	1968	1969	1970	1971	1972	1973	1974	1975	1976
Small business loans approved:										
Number, all businesses.....1,000.....	202.0	13.1	14.5	15.1	21.5	28.0	33.9	27.5	22.3	26.1
Minority-operated businesses, 1,000.....	57.0	2.3	4.7	6.3	7.8	9.0	9.1	6.9	5.4	5.5
Percent of all businesses.....	28	18	32	41	36	32	27	25	24	21
Value of total loans.....mil. dol.....	12,544	624	699	710	1,128	1,574	2,196	1,948	1,594	2,071
Minority-operated businesses.....mil. dol.....	1,892	41	105	160	214	258	334	289	229	262
Percent of all loans.....	15	7	15	23	19	16	15	15	14	13

Source: U.S. Small Business Administration, unpublished data.

NO. 902. NONFARM PROPRIETORS' INCOME, BY INDUSTRY: 1950 TO 1975

[In millions of dollars. 1950 excludes Alaska and Hawaii. Represents income without inventory valuation and capital consumption adjustments. Income equals business receipts (exclusive of capital gains) less business expenses (exclusive of capital losses and depletion allowances). Minus sign (-) denotes loss. See *Historical Statistics, Colonial Times to 1870*, series V 66-67, for single-year figures prior to minor revisions issued in 1976]

FORM OF ORGANIZATION AND INDUSTRY	1950	1960	1965	1970	1971	1972	1973	1974	1975
Total	25,062	34,158	42,658	50,739	52,818	56,358	60,336	63,111	65,162
Proprietorships and partnerships.....	24,835	33,763	42,165	50,212	52,291	55,767	59,628	62,259	64,251
Services.....	6,683	12,748	17,402	24,132	24,643	25,412	27,318	28,529	30,090
Wholesale and retail trade.....	9,844	10,724	11,675	13,129	13,878	14,240	16,391	17,644	17,781
Contract construction.....	3,088	3,486	4,760	5,436	6,238	7,065	7,982	7,939	7,076
Finance, ins., and real estate.....	1,826	3,404	4,352	3,728	4,407	4,631	3,072	1,621	2,406
Manufacturing.....	2,047	1,831	1,869	1,633	1,598	1,989	2,246	2,443	2,318
Transportation.....	655	807	1,179	1,244	1,369	1,513	1,674	1,794	1,845
Agricultural services, forestry, and fisheries.....	362	418	568	685	746	754	882	946	1,002
Other.....	330	345	360	225	-368	163	83	1,543	1,733
Other private business.....	227	395	493	527	527	591	708	852	911

Source: U.S. Bureau of Economic Analysis, *The National Income and Product Accounts of the United States, 1959-74*, and *Survey of Current Business*, monthly.

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No. 903. GROSS DOMESTIC PRODUCT (GDP) OF CORPORATE BUSINESS: 1950 TO 1976

[In billions of dollars, except as indicated. Excludes gross product originating in the rest of the world. Capital consumption allowances and corporate profits include capital consumption adjustment. Minus sign (-) denotes decrease. See *Historical Statistics, Colonial Times to 1970*, series V 141-160, for single-year figures prior to minor revisions issued in 1976]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976 prel.
Gross domestic product (GDP)	157.6	225.6	291.0	409.8	592.4	708.9	789.5	848.5	911.0	1,024.3
Capital consumption allowances.....	12.8	19.5	27.5	33.7	55.1	65.4	71.9	84.6	100.9	112.8
Indirect business taxes ¹	14.5	19.9	29.9	43.9	66.4	79.3	87.0	93.0	100.8	108.7
Domestic income.....	130.2	186.2	233.6	332.3	470.9	564.3	630.6	670.9	709.2	802.8
GDP, financial corp. business ²	5.7	9.0	13.7	17.7	31.8	37.9	37.5	38.4	40.6	42.8
GDP, nonfinancial corp. business.....	151.9	216.7	277.3	392.1	560.6	671.0	752.0	810.0	870.4	981.5
NONFINANCIAL CORP. BUSINESS										
CURRENT DOLLARS										
GDP, total	151.9	216.7	277.3	392.1	560.6	671.0	752.0	810.0	870.4	981.5
Avg. annual percent change.....	³ 13.8	7.4	5.1	7.2	7.4	9.4	12.1	7.7	7.5	12.8
Capital consumption allowances.....	12.6	19.2	27.0	32.8	53.1	62.6	68.7	80.8	96.6	107.9
Indirect business taxes ¹	14.1	19.2	28.3	41.1	61.8	73.5	80.5	86.1	93.4	100.6
Domestic income.....	125.2	178.3	222.0	318.2	445.7	534.8	602.8	643.2	680.4	773.1
Compensation of employees.....	94.7	138.5	181.1	246.1	377.1	443.8	503.8	554.7	577.1	641.5
Corporate profits ⁴	29.6	38.2	37.4	66.1	51.6	72.0	76.0	59.6	72.5	95.8
Profits before tax.....	38.5	42.0	39.5	64.4	55.1	75.9	92.7	102.3	95.5	126.0
Profits tax liability.....	16.9	20.2	19.2	27.2	27.3	33.5	39.6	42.6	39.7	54.0
Profits after tax.....	21.6	21.8	20.3	37.2	27.9	42.4	53.1	59.8	55.8	72.0
Inventory valuation adjust.....	-5.0	-1.7	.3	-1.9	-5.1	-6.6	-18.6	-39.8	-11.4	-14.6
Capital consumption adjust.....	-3.9	-2.1	-2.3	3.6	1.5	2.7	1.8	-3.0	-11.6	-15.6
Net interest.....	.9	1.6	3.5	6.1	17.0	19.1	23.1	29.0	30.8	35.8
1972 DOLLARS										
GDP, total	247.5	315.1	358.9	494.6	600.6	671.0	720.4	698.7	676.8	726.2
Avg. annual percent change.....	³ 12.6	4.9	2.6	6.6	4.0	5.7	7.4	-3.0	-3.1	7.3
Capital consumption allowances.....	23.9	30.5	36.4	43.4	57.4	62.6	65.8	80.4	72.6	75.8
Indirect business taxes ¹	28.4	34.3	41.8	54.3	65.7	73.6	78.7	78.0	78.5	82.1
Domestic income.....	195.2	250.3	280.7	397.0	477.5	534.8	575.9	551.3	525.7	583.3
GDP current dollar cost and profit per unit⁵.....	.614	.688	.773	.793	.933	1.000	1.044	1.159	1.286	1.352
Capital consumption allowances.....	.051	.061	.075	.066	.088	.093	.095	.116	.143	.149
Indirect business taxes ¹.....	.057	.061	.079	.083	.103	.110	.112	.123	.138	.138
Compensation of employees.....	.383	.439	.505	.497	.628	.661	.699	.794	.853	.883
Profits tax liability ⁴.....	.068	.064	.053	.065	.045	.050	.055	.061	.059	.074
Profits after tax ⁴.....	.051	.057	.051	.079	.041	.057	.050	.024	.048	.058
Net interest.....	.004	.005	.010	.012	.028	.028	.032	.041	.045	.040

¹ Plus transfer payments less subsidies. ² Corporations comprising the finance, insurance, and real estate industry. ³ Change from 1949. ⁴ With inventory valuation adjustment. ⁵ Per constant dollar gross product. Equals the deflator for gross domestic product with the decimal point shifted two places to the left.

Source: U.S. Bureau of Economic Analysis, *The National Income and Product Accounts of the United States, 1929-74*, and *Survey of Current Business*, monthly.

No. 904. SOURCES AND USES OF FUNDS: 1950 TO 1976

[In billions of dollars. Covers nonfarm nonfinancial corporate business]

SOURCE AND USE	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976
Sources, total	41.8	52.2	47.6	90.8	105.1	154.0	181.7	183.0	145.1	211.5
Internal	17.8	28.8	34.7	56.1	58.9	80.8	83.8	77.6	103.4	121.8
Undistributed profits.....	14.1	13.5	9.9	21.8	9.7	22.5	32.5	40.3	30.7	45.3
Adjustments ¹	-8.9	-3.8	-2.0	1.7	-3.5	-3.9	-16.7	-42.7	-23.0	-30.1
Capital consumption allowances.....	12.5	10.1	26.8	32.6	52.7	62.2	68.1	80.0	95.7	106.7
External ²	24.0	23.4	12.9	34.7	46.2	73.2	97.8	105.4	42.1	89.7
Percent of total.....	57.4	44.0	27.1	38.2	44.0	47.5	53.8	57.6	29.0	42.4
Credit market funds, net.....	8.0	10.4	12.0	20.4	41.5	58.8	72.9	83.1	37.1	56.6
Net new equity issues.....	1.3	1.7	1.4	-	5.7	10.9	7.9	4.1	9.9	10.5
Long-term debt ³	3.9	6.1	7.2	13.4	29.3	35.2	41.6	48.1	34.0	35.7
Short-term debt ⁴	2.8	2.3	3.4	7.0	6.5	12.6	23.3	30.9	-6.9	10.3
Other.....	15.9	13.0	1.0	14.4	4.8	14.4	25.0	22.2	5.0	33.1
Uses, total	46.3	49.3	40.7	82.1	96.0	137.5	165.5	169.9	130.9	196.6
Capital expenditures.....	29.9	32.8	38.0	61.9	80.6	101.0	124.4	134.6	95.7	137.6
Increase in financial assets.....	16.4	16.5	2.7	20.2	15.4	36.5	41.1	35.3	35.2	59.0
Discrepancy (sources less uses)	-4.5	2.9	7.1	8.7	9.0	16.4	16.1	13.1	14.5	15.0

- Represents zero. ¹ Inventory valuation and capital consumption allowances adjustment.

² Net increases in liability.

³ Corporate bonds, multi-family and commercial mortgages, and 40 percent of bank loans.

⁴ Sixty percent of bank loans, commercial paper, acceptances, finance company loans, and Government loans.

Source: Board of Governors of the Federal Reserve System, *Flow of Funds Accounts, 1946-1976*.

No. 905. GROSS INVESTMENT IN THE DOMESTIC ECONOMY, BY SECTOR AND BY TYPE: 1950 TO 1973

(Gross investment is defined to be all current outlays that augment income- and output-producing capacity (capital) for future periods plus outlays to offset capital consumption. For this table, gross investment consists of outlays for tangible durable goods (structures and equipment), and inventory accumulation of all sectors, tangible human investment, and intangible investments designed to enhance the efficiency of the tangible factors. Consult source for information on methodology and sources used to derive these estimates.)

SECTOR AND TYPE	VOLUME (bil. dol.)						PERCENT DISTRIBUTION		
	1950	1955	1960	1965	1969	1973	1950	1960	1973
Gross investment, total.....	165.8	244.0	312.1	445.7	618.0	851.0	100.0	100.0	100.0
Personal.....	97.8	135.3	169.7	241.0	330.3	465.0	59.0	54.4	54.6
Business.....	46.3	58.6	70.7	107.9	147.3	208.8	27.9	22.7	24.5
Government.....	21.7	50.1	71.7	96.8	140.4	177.2	13.1	23.0	20.8
TYPE									
Intangible investment.....	49.6	76.2	114.8	175.1	267.8	369.6	29.9	36.8	43.4
Human intangible.....	46.9	69.2	100.8	154.1	241.6	339.5	28.3	32.3	39.9
Education and training ¹	33.6	50.9	75.3	118.4	192.4	262.6	20.3	24.1	30.9
Medical and health ²	6.1	8.8	13.3	19.6	27.9	45.9	3.7	4.3	5.4
Mobility ³	7.3	9.5	12.2	16.1	21.3	31.0	4.4	3.9	3.6
Nonhuman intangible.....	2.7	7.0	14.0	21.1	26.2	30.1	1.6	4.5	3.5
Basic research.....	.3	.7	1.5	3.1	3.7	(NA)	.2	.5	(NA)
Research and development.....	2.4	6.3	12.6	18.0	22.4	(NA)	1.4	4.0	(NA)
Tangible investment.....	116.2	167.8	197.2	270.6	350.2	481.4	70.1	63.2	56.6
Human ⁴	19.9	30.0	40.7	51.3	64.0	(NA)	12.0	13.0	(NA)
Nonhuman.....	96.3	137.8	156.5	219.3	286.3	(NA)	58.1	50.1	(NA)
Structures.....	35.6	49.4	57.4	75.5	95.4	(NA)	21.5	18.4	(NA)
Equipment.....	53.4	78.7	92.8	129.1	179.0	(NA)	32.2	29.7	(NA)
Inventories.....	7.4	9.8	6.4	14.7	11.9	(NA)	4.5	2.1	(NA)

NA Not available. ¹ Covers expenditures on formal, informal, and special education, and on employee training. ² Expenditures which yield a return in decreased mortality, disability, and debility. ³ Represents costs associated with transferring resources. Covers unemployment costs, job-search and hiring costs, and migration costs.

⁴ Covers personal consumption expenditures allocated to rearing children to working age (14 years old).

Source: Kendrick, John W., *The Formation and Stock of Total Capital*, National Bureau of Economic Research, New York, N.Y., 1976, and unpublished data.

No. 906. CAPITAL INVESTED PER EMPLOYEE: 1950 TO 1975

(In thousands of 1958 dollars. Represents all persons working in industries indicated. Asset data based on National Technical Information Service analyses; for a detailed description of methodology, see *The National Wealth of the United States: By Major Sectors and Industries, 1976*, by the Conference Board.)

INDUSTRY	1972 Industry code	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975
Real estate.....	65	(NA)	(NA)	399.4	421.9	417.7	393.3	378.5	372.4	375.5	392.0
Petroleum and coal.....	11, 12, 29	61.5	60.5	72.6	89.3	97.4	99.2	100.7	103.0	105.2	110.1
Transportation, utilities.....	40-49	63.6	69.1	78.9	84.9	89.0	91.6	93.3	93.7	95.2	100.3
Tobacco.....	21	24.3	32.9	34.8	36.7	33.8	36.3	39.9	41.7	44.0	47.4
Mining.....	10-14	24.7	31.5	39.8	39.0	46.5	48.0	47.2	46.5	43.4	41.6
Chemicals.....	28	19.1	25.5	29.6	32.7	29.4	30.6	33.8	38.0	38.8	41.3
Primary metals.....	33	18.8	21.8	27.5	27.7	29.4	30.6	29.5	26.7	26.6	30.2
Paper.....	26	17.7	19.8	21.9	22.9	23.6	24.1	23.6	23.6	24.5	27.2
Stone, clay, glass.....	32	11.5	13.5	17.3	18.8	19.7	20.1	20.1	20.2	21.0	23.9
Transportation equipment.....	37	9.1	8.5	11.3	13.1	17.5	18.3	18.9	18.9	20.5	22.5
Nonelectrical machinery.....	35	10.4	11.9	12.9	13.5	16.3	17.9	17.7	17.7	17.7	19.1
Food.....	20	12.3	13.5	14.3	15.1	16.5	17.0	17.1	17.2	17.6	17.9
Electrical machinery.....	36	5.2	7.1	8.1	10.4	13.3	14.9	14.9	14.8	15.4	17.7
Lumber and wood.....	24	6.9	7.7	9.2	10.0	12.8	12.9	12.5	16.3	14.1	17.0
Instruments.....	38	5.2	7.9	9.2	10.1	12.0	13.1	15.1	15.0	15.3	16.7
Rubber and plastics.....	30	9.2	8.7	10.0	10.1	11.6	12.0	11.8	12.0	12.8	14.5
Printing and publishing.....	27	7.6	7.6	7.6	8.4	9.6	10.2	10.5	10.8	11.4	12.5
Fabricated metals.....	34	8.7	10.3	11.5	12.6	12.7	12.7	12.0	11.1	11.2	12.4
Finance and insurance.....	60, 61, 63, 64	(NA)	(NA)	7.7	9.1	10.1	10.6	11.0	11.1	11.3	11.8
Textiles.....	22	6.0	7.7	7.6	8.1	9.6	9.9	9.7	9.6	10.5	11.2
Wholesale and retail trade.....	50-59	6.2	7.7	8.2	8.8	9.2	9.4	9.4	9.4	9.4	9.4
Services.....	70-89	6.3	6.1	6.5	7.4	8.0	8.1	8.1	8.0	8.0	8.0
Furniture and fixtures.....	25	6.3	6.8	7.0	5.9	6.4	6.6	6.1	6.1	6.6	7.8
Leather.....	31	3.8	4.6	3.3	3.4	5.2	5.6	5.3	6.1	6.8	7.4
Construction.....	15-17	1.9	2.7	3.5	4.6	5.2	5.3	5.3	5.1	5.2	5.5
Apparel.....	23	2.7	2.9	3.2	3.6	3.4	4.2	4.1	4.3	4.8	5.4
Miscellaneous.....	39	8.2	10.2	11.3	8.9	10.4	11.0	11.1	12.0	13.1	14.3

NA Not available.

Source: The Conference Board, New York, N.Y., *Road Maps of Industry*, monthly. (Copyright.)

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NO. 907. PROJECTED FIXED BUSINESS INVESTMENT REQUIREMENTS BY INDUSTRY GROUP: 1971-1980

[In billions of 1972 dollars. Estimated requirements are for fixed nonresidential investment for the entire period from 1971 to 1980. Based on projected Gross National Product estimates through 1980, derived demands for output of industries, and projected capital/output ratios. Capital requirements, in concept, vary with needs to be fulfilled and, as estimated below, include capital expansion, capital replacement, environmental clean-up, and energy conservation and self-sufficiency. Data shown are for establishments. Minus sign (-) denotes decrease]

INDUSTRY	Total investment required	EXPANSION AND REPLACEMENT ¹			Pollution abatement
		Total	Expansion	Replacement	
All industries.....	1,473.4	1,423.6	642.8	780.8	249.8
Manufacturing.....	344.0	314.3	122.9	191.4	29.7
Durable manufactures.....	194.8	182.2	72.5	109.8	12.6
Primary metals.....	56.4	50.8	17.9	32.9	5.6
Fabricated metal products.....	10.3	9.4	3.7	5.6	1.0
Machinery, except electrical.....	39.0	38.5	23.5	14.9	.6
Electrical machinery.....	27.2	25.8	13.3	12.5	1.5
Motor vehicles and equipment (M.V.).....	21.7	20.8	6.4	14.4	.9
Transportation equipment, except M.V.....	7.0	6.8	- .3	7.0	.3
Stone, clay, and glass.....	12.1	10.7	2.4	8.3	1.3
Durables not shown separately.....	21.1	19.6	5.4	14.2	1.5
Nondurable manufactures.....	149.2	132.1	50.4	81.7	17.1
Food and kindred products.....	24.7	23.2	3.3	19.9	1.5
Textiles.....	10.8	10.6	2.9	7.7	.2
Paper.....	20.7	16.8	10.6	6.2	3.9
Chemicals.....	50.0	45.9	22.2	23.7	4.1
Petroleum refining and related industries.....	12.8	6.1	- 2.0	8.1	6.7
Nondurables not shown separately.....	30.2	29.4	13.3	16.1	.7
Nonmanufacturing.....	1,060.5	1,030.5	491.8	538.7	20.1
Agriculture, forestry, and fisheries.....	78.8	78.8	28.1	50.7	(NA)

NA Not available. ¹ Excludes pollution abatement. ² Excludes agriculture, forestry, and fisheries.
Source: U.S. Bureau of Economic Analysis, *A Study of Fixed Capital Requirements of the U.S. Economy, 1971-1980*.

NO. 908. PATENTS AND TRADEMARKS: 1956 TO 1976

[Covers patents issued to citizens of the United States and residents of foreign countries. For information on copyrights, see table 970. See also *Historical Statistics, Colonial Times to 1970*, series W 96-108]

ITEM	1956-1960	1961-1965	1966-1970	1971-1975	1971	1972	1973	1974	1975	1976
Patent applications filed.....	410,389	463,193	504,613	541,415	111,095	105,300	109,622	107,448	107,950	109,989
Inventions.....	384,782	436,082	476,239	510,409	104,566	98,928	103,695	102,206	101,014	102,344
Designs.....	23,865	25,251	26,260	28,575	6,211	5,867	5,425	4,780	6,292	7,061
Botanical plants.....	584	628	684	688	155	135	118	130	150	175
Reissues.....	1,158	1,232	1,530	1,743	163	370	384	332	494	409
Patents issued.....	251,872	275,443	342,889	396,668	81,789	78,183	78,618	81,274	76,804	75,400
Inventions.....	237,469	259,971	325,144	375,532	78,316	74,808	74,139	76,275	71,994	70,236
Individuals.....	76,589	69,945	73,379	87,032	17,099	17,729	16,929	18,083	17,192	14,084
Corporations:										
U.S.....	133,948	152,537	190,616	192,911	43,022	38,890	38,615	37,807	34,577	34,391
Foreign ¹	21,043	30,992	52,771	86,005	16,048	16,414	16,513	18,686	18,344	19,934
U.S. Government.....	5,889	6,497	8,378	9,584	2,147	1,775	2,082	1,699	1,881	1,827
Designs.....	13,024	13,862	16,254	18,675	3,156	2,901	4,033	4,303	4,282	4,564
Botanical plants.....	567	576	426	813	71	199	132	261	150	176
Reissues.....	812	1,034	1,065	1,648	246	275	314	435	378	424
Published applications ²	-	-	586	807	207	201	143	135	121	133
Foreign country residents ³	36,513	48,322	75,986	110,282	22,328	23,293	22,638	25,632	25,391	26,074
Certificates of trademarks issued.....	108,246	106,635	128,465	158,305	27,232	28,889	31,509	33,612	37,063	33,080
Trademarks.....	90,727	91,946	104,181	129,413	21,019	23,252	26,112	28,099	30,931	26,320
Trademark renewals.....	17,519	14,689	24,284	28,892	6,213	5,637	5,397	5,513	6,132	6,754

- Represents zero. ¹ Includes patents assigned to foreign governments.
² Abstracts of the technical disclosure of patent applications published at request of applicant or owner. The current practice, called "Defensive Publications," began in November 1968.
³ Includes patent inventions and a small number of patents for designs and botanical plants.
Source: U.S. Patent and Trademark Office. Fiscal-year figures are published in the *Commissioner of Patents and Trademarks Annual Report*.

NO. 909. BUSINESS EXPENDITURES FOR NEW PLANT AND EQUIPMENT: 1960 TO 1977

[In billions of dollars. Excludes expenditures of agricultural business, professions, institutions, and real estate firms, and current account outlays. See also *Historical Statistics, Colonial Times to 1970*, series V 306-332]

INDUSTRY GROUP	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977 ¹
All industries.....	36.75	54.42	79.71	81.21	88.44	99.74	112.40	112.75	120.49	135.34
Average annual percent change.....	24.5	8.2	5.5	1.9	8.9	12.8	12.7	.3	6.8	12.3
Manufacturing.....	15.09	23.44	31.95	29.99	31.35	38.01	46.01	47.95	52.48	59.91
Durable goods.....	7.23	11.50	15.80	14.15	15.64	19.25	22.62	21.84	23.68	27.44
Primary metals.....	1.82	2.54	3.24	2.78	2.75	3.43	4.95	5.99	5.97	6.11
Blast furnaces, steel works.....	1.35	1.57	1.68	1.37	1.24	1.38	2.12	3.03	2.99	2.95
Nonferrous metals.....	.32	.73	1.24	1.08	1.18	1.67	2.33	2.28	2.16	2.31
Electrical machinery and equipment.....	.90	1.12	2.27	2.14	2.39	2.84	2.97	2.31	2.62	3.11
Machinery, except electrical.....	1.25	2.31	3.47	2.80	2.90	3.42	4.42	4.50	5.03	5.79
Transportation equip. Motor vehicles.....	1.25	2.54	2.43	2.13	2.53	3.12	3.75	3.24	3.62	4.89
Aircraft.....	.79	1.89	1.59	1.51	1.83	2.28	2.70	2.06	2.45	3.87
Stone, clay, and glass.....	.34	.46	.54	.38	.43	.53	.80	.92	.94	.98
Other durables.....	.75	.92	.99	.85	1.20	1.49	1.44	1.42	1.72	1.85
Other durables.....	1.26	2.07	3.41	3.45	3.87	4.96	5.10	4.38	4.73	5.88
Nondurable goods.....	7.85	11.94	16.15	15.84	15.72	18.76	23.39	26.11	28.81	32.47
Food and beverages.....	1.34	1.83	2.84	2.69	2.55	3.11	3.25	3.26	3.75	4.21
Paper.....	.77	1.22	1.65	1.25	1.38	1.86	2.58	2.95	3.27	3.50
Chemicals.....	1.55	2.73	3.44	3.44	3.45	4.46	5.69	6.25	6.68	6.98
Petroleum.....	2.89	4.03	5.62	5.85	5.25	5.45	8.00	10.51	11.62	13.70
Rubber.....	.31	.56	.94	.84	1.08	1.56	1.47	1.00	1.10	1.43
Other nondurables.....	.99	1.58	1.66	1.76	2.00	2.33	2.39	2.14	2.40	2.65
Nonmanufacturing.....	21.66	30.98	47.76	51.22	57.09	61.73	66.39	64.82	68.01	75.42
Mining.....	1.30	1.46	1.89	2.16	2.42	2.74	3.18	3.79	4.00	4.41
Railroad.....	1.16	1.99	1.78	1.67	1.80	1.96	2.54	2.55	2.52	2.69
Air transportation.....	.66	1.22	3.03	1.88	2.46	2.41	2.00	1.84	1.30	1.74
Other transportation.....	1.39	1.68	1.23	1.38	1.46	1.66	2.12	3.18	3.63	2.40
Public utilities.....	5.24	6.13	13.14	15.30	17.00	18.71	20.55	20.14	22.28	26.11
Electric.....	3.62	4.43	10.65	12.86	14.45	15.94	17.63	17.00	18.80	21.72
Communication.....	3.24	5.30	10.10	10.77	11.89	12.85	13.96	12.74	13.30	15.34
Commercial and other.....	8.75	13.19	16.59	18.05	20.07	21.40	22.05	20.60	20.99	22.75

¹ Estimates based on expected capital expenditures as reported by business in late Apr. and May 1977.

² Change from 1955.

³ Comprises trade, service, construction, finance, and insurance.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, monthly.

NO. 910. NONFARM BUSINESS INVENTORIES IN CURRENT AND CONSTANT DOLLARS: 1950 TO 1976

[In billions of dollars. As of end of year]

INVENTORIES	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976
CURRENT DOLLARS											
Total.....	74.6	94.6	111.3	143.0	212.5	225.1	243.9	289.6	366.3	363.5	399.4
Manufacturing.....	37.4	51.4	58.1	73.7	110.8	113.6	120.4	143.6	188.7	188.5	205.3
Wholesale trade.....	13.4	15.6	18.4	24.0	36.8	39.4	43.6	52.8	67.0	64.7	72.1
Retail trade.....	18.6	21.9	26.8	34.4	47.1	52.9	58.0	66.8	76.3	74.7	82.5
All other.....	5.2	5.6	8.1	10.9	17.7	19.2	21.8	26.4	34.4	35.6	39.6
CONSTANT (1972) DOLLARS											
Total.....	102.7	123.7	138.8	172.8	223.6	228.8	237.6	251.8	260.7	247.7	255.8
Manufacturing.....	51.8	66.7	72.4	89.1	117.1	115.4	117.5	123.6	129.7	124.1	126.9
Wholesale trade.....	17.0	19.9	22.7	28.9	38.7	40.1	42.4	45.3	48.5	44.9	47.5
Retail trade.....	25.2	28.7	33.0	41.0	49.0	53.7	56.5	60.3	59.2	55.6	57.8
All other.....	8.7	8.4	10.7	13.8	18.8	19.5	21.3	22.7	23.4	23.1	23.7

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, monthly.

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No. 911. MANUFACTURING AND TRADE—SALES AND INVENTORIES: 1950 TO 1976

[In billions of dollars, except ratios. Prior to 1960, excludes Alaska and Hawaii. See *Historical Statistics, Colonial Times to 1970*, series V 78-107 for single year figures prior to minor revisions issued in 1976]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976 ¹
Sales, total	463	620	730	963	1,256	1,503	1,744	2,001	2,070	2,317
Manufacturing	224	318	371	492	634	757	875	1,015	1,047	1,183
Durable goods.....	106	169	191	267	339	409	476	529	527	605
Nondurable goods.....	117	149	180	225	295	348	399	487	520	578
Retail trade	147	184	220	284	376	448	503	538	584	652
Durable goods.....	54	67	71	94	114	150	170	167	181	214
Nondurable goods.....	93	117	149	190	261	299	333	370	404	438
Merchant wholesalers	92	119	140	187	247	298	365	448	439	483
Durable goods.....	38	51	59	83	112	138	168	202	186	211
Nondurable goods.....	55	67	81	104	135	160	197	246	253	272
Inventories (book value), total ²	60	80	95	121	175	198	228	278	275	299
Manufacturing	31	45	54	68	102	108	124	158	156	167
Durable goods.....	16	26	32	42	67	70	81	102	100	106
Nondurable goods.....	16	19	21	26	35	38	43	56	55	61
Retail trade	19	23	27	34	47	57	65	74	75	82
Durable goods.....	8	11	12	15	20	26	30	34	34	38
Nondurable goods.....	11	12	15	19	26	31	36	40	40	44
Merchant wholesalers	9	12	14	18	27	33	38	47	45	50
Durable goods.....	5	6	8	11	16	19	22	28	27	30
Nondurable goods.....	5	5	6	8	11	13	16	19	18	20
Inventory-sales ratio, total ³	1.36	1.47	1.56	1.45	1.64	1.52	1.46	1.51	1.60	1.49
Manufacturing	1.48	1.62	1.76	1.60	1.89	1.67	1.58	1.66	1.80	1.64
Durable goods.....	1.55	1.75	2.08	1.82	2.33	2.00	1.89	2.07	2.34	2.04
Nondurable goods.....	1.41	1.47	1.42	1.34	1.39	1.28	1.21	1.22	1.26	1.22
Retail trade	1.38	1.43	1.45	1.39	1.47	1.46	1.46	1.53	1.51	1.46
Durable goods.....	1.52	1.79	2.02	1.86	2.16	1.98	1.98	2.21	2.23	2.03
Nondurable goods.....	1.29	1.22	1.18	1.16	1.17	1.20	1.19	1.23	1.18	1.18
Merchant wholesalers	1.07	1.13	1.22	1.15	1.26	1.24	1.16	1.13	1.24	1.20
Durable goods.....	1.29	1.36	1.69	1.49	1.65	1.60	1.47	1.45	1.79	1.66
Nondurable goods.....	.91	.95	.89	.87	.94	.94	.90	.87	.84	.83

¹ Preliminary. ² Seasonally adjusted, end-of-year data. ³ Average inventories to average monthly sales. Average inventories based on weighted averages of end-of-month figures.

Source: 1950 and 1955, U.S. Bureau of Economic Analysis, *Business Statistics, 1973*, thereafter, *Survey of Current Business*, January 1977, and subsequent monthly issues.

No. 912. NONFINANCIAL CORPORATIONS—ASSETS AND LIABILITIES: 1950 TO 1976

[In billions of dollars, except ratio. As of December 31. Covers all nonfinancial U.S. corporations, 1950-1971 based on Internal Revenue Service, *Statistics of Income*, covering virtually all corporations in United States. 1972-1976 estimated (subject to revision), based on data compiled from many different sources, including data on corporations registered with the Securities and Exchange Commission.]

CURRENT ASSETS AND LIABILITIES	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976
Current assets	144.7	194.8	241.7	336.0	492.3	573.5	643.3	712.2	731.6	816.8
Cash on hand and in banks ¹	25.3	30.5	31.7	42.8	50.2	57.5	61.6	62.7	68.1	77.0
U.S. Government securities ²	17.9	21.6	16.9	14.4	7.7	9.3	11.0	11.7	19.4	26.4
Receivables from U.S. Govt.....	1.1	2.3	3.1	3.9	4.2	3.4	3.5	3.5	3.6	4.3
Other notes, accounts receivable.....	44.1	64.1	88.8	130.2	201.9	240.0	266.1	289.7	294.6	323.9
Inventories.....	55.0	72.8	91.6	126.6	193.3	215.2	246.7	288.0	285.8	315.4
Other current assets.....	1.3	3.5	9.6	18.1	35.0	48.1	54.4	56.6	60.0	69.8
Current liabilities	67.6	98.0	125.9	178.8	304.9	352.2	401.0	450.6	457.5	499.9
U.S. Govt. advances, prepayments.....	.4	2.3	1.8	3.1	6.6	4.0	4.3	5.2	6.4	7.0
Other notes and accounts payable.....	39.2	56.7	78.6	118.4	204.7	230.4	261.6	287.5	281.6	295.9
Federal income tax liabilities.....	16.1	18.4	12.6	18.3	10.0	15.1	18.1	23.2	20.7	26.8
Other current liabilities.....	11.9	20.6	32.9	39.0	83.6	102.6	117.0	134.8	148.8	170.2
Net working capital	77.1	96.8	115.8	157.2	187.4	221.3	242.3	261.5	274.1	316.9
Ratio to current assets.....	53.3	49.7	47.9	46.8	38.1	38.6	37.7	36.7	37.5	38.8

¹ Includes time certificates of deposits. ² Includes Federal agency issues.
Source: U.S. Securities and Exchange Commission, Statistical Series, *Net Working Capital of Nonfinancial U.S. Corporations*, quarterly.

No. 913. ACTIVE CORPORATIONS—ASSETS AND LIABILITIES: 1940 TO 1974

[In billions of dollars. See headnote, table 434. For number of returns, see table 916. See also *Historical Statistics, Colonial Times to 1970*, series V 108-127]

ASSETS AND LIABILITIES	1940	1950	1955	1960	1965	1970	1971	1972	1973	1974
Assets or liabilities.....	320	598	889	1,207	1,724	2,635	2,889	3,257	3,649	4,016
ASSETS										
Cash.....	41	71	87	97	117	177	196	228	259	281
Notes and accounts receivable ¹	43	109	192	242	392	585	650	762	891	998
Inventories.....	19	54	71	91	126	190	199	224	263	312
Investments, government obligations.....	30	110	132	135	157	197	223	240	250	256
Other current assets.....	(²)	(²)	(³)	10	32	73	83	100	119	129
Mortgage and real estate loans.....	(⁴)	(⁵)	(⁵)	129	(⁵)	328	366	418	463	508
Other investments.....	80	97	180	179	465	406	461	514	556	578
Capital assets ⁶	100	145	206	293	395	600	634	685	750	831
Other assets.....	7	13	21	28	38	70	78	86	99	123
LIABILITIES										
Notes and accounts payable ⁵	23	47	76	112	174	320	334	386	461	539
Other current liabilities.....	(⁶)	(⁶)	(⁶)	365	533	892	1,005	1,103	1,316	1,459
Bonded debt and mortgages ⁷	49	66	98	154	210	363	403	445	493	542
Other liabilities.....	110	262	409	167	220	308	339	376	421	460
Capital stock.....	89	94	113	140	161	201	210	221	228	240
Surplus and undivided profits (net) ⁸	49	129	193	269	375	551	599	666	730	776

¹ Less allowance for bad debts. Includes loans and discounts of banks, except mortgage and real estate loans.
² Included partly in "Other investments" and partly in "Other assets."
³ For 1940-1955, included partly in "Notes and accounts receivable" and partly in "Other investments"; for 1965, included in "Other investments."
⁴ Less depreciation, amortization, and depletion reserves. Includes land and intangible assets.
⁵ Includes bonds, notes, and mortgages payable with maturity of less than 1 year.
⁶ Included in "Other liabilities."
⁷ With maturity of 1 year or more.
⁸ Beginning 1970, reduced by cost of treasury stock.

Source: U.S. Internal Revenue Service, *Statistics of Income, Corporation Income Tax Returns*, annual.

No. 914. ACTIVE CORPORATIONS, BY ASSET SIZE: 1950 TO 1974

[Beginning 1955, figures are estimates based on samples of active corporations filing income tax returns. See *Historical Statistics, Colonial Times to 1970*, series V 42, for total active corporations]

ASSET SIZE-CLASS	NUMBER OF ACTIVE CORPORATIONS (1,000)						TOTAL ASSETS (bil. dol.)					
	1950	1955	1960	1965	1970	1974	1950	1955	1960	1965	1970	1974
Total.....	629.3	807.3	1,140.6	1,424.0	1,665.5	1,965.9	598	889	1,207	1,724	2,635	4,019
Under \$100,000.....	1,307.9	1,491.5	684.6	846.2	961.0	1,141.1	{ 12	16	23	28	32	36
\$100,000-\$1 million.....	190.3	260.1	389.3	490.7	599.1	687.2	{ 55	76	111	143	178	211
\$1 mil.-\$10 million.....	35.6	47.6	56.3	73.5	87.0	113.7	{ 100	136	159	206	240	306
\$10 mil.-\$25 million.....	4.2	{ 4.7	5.8	7.4	9.8	11.9	{ 85	{ 72	89	115	153	188
\$25 mil.-\$50 million.....	.6	{ 1.6	2.1	2.9	3.9	5.3	{ 42	{ 55	73	99	135	184
\$50 mil.-\$100 million.....	.7	{ .8	1.1	1.5	2.1	2.9	{ 304	{ 56	80	104	145	201
\$100 mil.-\$250 mil.....	.7	{ .6	.8	1.1	1.4	2.0	{ 304	{ 92	119	165	222	304
\$250 mil. and over.....	.1	{ .4	.6	.8	1.2	1.8	{ 304	{ 385	552	862	1,530	2,586
PERCENT DISTRIBUTION												
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under \$100,000.....	163.2	160.9	60.0	59.4	57.7	58.0	{ 2.1	1.8	1.9	1.6	1.2	.9
\$100,000-\$1 million.....	30.2	32.2	34.1	34.5	36.0	35.0	{ 9.3	8.5	9.2	8.3	6.8	5.3
\$1 mil.-\$10 million.....	5.7	5.9	4.9	5.2	5.2	5.8	{ 16.7	15.3	13.2	12.0	9.1	7.6
\$10 mil.-\$25 mil.....	.7	{ .6	.5	.5	.6	.6	{ 14.2	{ 8.1	7.4	6.7	5.8	4.7
\$25 mil.-\$50 mil.....	.1	{ .1	.2	.2	.2	.3	{ 6.9	{ 6.2	6.0	5.7	5.1	4.6
\$50 mil.-\$100 million.....	.1	{ .1	.1	.1	.1	.1	{ 6.9	{ 6.5	6.6	6.1	5.5	5.0
\$100 mil.-\$250 mil.....	.1	{ .1	.1	.1	.1	.1	{ 50.8	{ 10.3	9.9	9.6	8.4	7.6
\$250 mil. and over.....	.1	{ (2)	.1	.1	.1	.1	{ 50.8	{ 43.4	45.8	50.0	58.1	64.4

Z Less than .05 percent. ¹ Includes returns of corporations not reporting balance sheet information.
 Source: U.S. Internal Revenue Service, *Statistics of Income, Corporation Income Tax Returns*, annual.

No. 915. ACTIVE CORPORATIONS—INCOME TAX RETURNS, BY ASSET SIZE AND INDUSTRY: 1974

[In millions of dollars, except number of returns and percents. See headnote and footnotes, table 434. See also *Historical Statistics, Colonial Times to 1970*, series V 167-183 and V 193-196]

ITEM	Total	ASSET SIZE-CLASS					
		Under 1 mil. dol. ¹	1-9.9 mil. dol.	10-24.9 mil. dol.	25-49.9 mil. dol.	50-99.9 mil. dol.	100 mil. dol. and over
All industrial divisions: ²							
Number of returns.....	1,965,894	1,828,406	113,654	11,925	5,276	2,878	3,755
Total assets or liabilities.....	4,016,467	247,842	305,896	188,440	184,221	200,603	2,889,465
Total receipts.....	3,089,701	593,748	493,114	146,319	116,533	123,258	1,616,729
Total deductions ³	2,941,544	581,208	476,654	140,052	111,420	117,541	1,514,669
Cost of sales and operations.....	2,068,069	399,322	367,487	103,374	79,292	82,651	1,035,943
Interest and taxes paid.....	207,655	23,568	19,153	9,101	9,038	10,150	136,645
Depreciation and amortization.....	79,423	11,424	9,004	2,866	2,356	2,685	51,088
Depletion.....	18,999	177	412	248	167	205	17,790
Net income less deficit ⁴	145,998	12,485	16,255	5,850	4,719	5,383	101,306
Income tax ⁴	61,884	4,638	7,459	2,764	2,123	2,360	42,540
Percent distribution:							
Number of returns ²	100.0	93.0	5.8	.6	.3	.1	.2
Total assets or liabilities.....	100.0	6.2	7.6	4.7	4.6	5.0	71.9
Total receipts.....	100.0	19.2	16.0	4.7	3.8	4.0	52.3
Total deductions.....	100.0	19.7	16.2	4.8	3.8	4.0	51.5
Cost of sales and operations.....	100.0	19.3	17.8	5.0	3.8	4.0	50.1
Interest and taxes paid.....	100.0	11.3	9.2	4.4	4.4	4.9	65.8
Depreciation and amortization.....	100.0	14.4	11.3	3.6	3.0	3.4	64.3
Depletion.....	100.0	.9	2.2	1.3	.9	1.1	93.6
Net income less deficit ⁴	100.0	8.6	11.1	4.0	3.2	3.7	69.4
Income tax ⁴	100.0	7.5	12.1	4.5	3.4	3.8	68.7
Agriculture, forestry, and fishing:							
Number of returns.....	53,458	50,722	2,624	77	17	8	10
Total assets or liabilities.....	19,284	9,486	5,644	1,143	584	633	1,794
Total receipts.....	25,453	12,771	7,936	1,394	863	664	1,820
Mining:							
Number of returns.....	15,732	13,607	1,797	166	60	42	60
Total assets or liabilities.....	47,040	2,284	5,029	2,579	2,150	2,941	32,057
Total receipts.....	64,805	3,712	5,701	2,514	1,759	1,858	49,261
Construction:							
Number of returns.....	185,563	174,732	10,175	433	129	47	47
Total assets or liabilities.....	74,108	23,512	25,074	6,619	4,390	3,248	11,265
Total receipts.....	137,024	66,103	43,920	8,587	4,691	2,804	10,919
Manufacturing:							
Number of returns.....	211,563	182,761	24,819	1,903	786	470	824
Total assets or liabilities.....	885,823	33,996	67,563	29,345	27,670	33,001	694,243
Total receipts.....	1,297,266	90,566	141,998	51,103	43,308	51,521	918,770
Transportation and public utilities:							
Number of returns.....	80,232	75,187	4,170	329	145	97	304
Total assets or liabilities.....	414,691	9,539	11,288	5,093	5,064	6,975	376,732
Total receipts.....	222,075	20,876	15,207	5,462	4,864	6,514	169,152
Wholesale and retail trade:							
Number of returns.....	602,423	566,803	33,468	1,274	450	219	209
Total assets or liabilities.....	313,305	88,459	77,206	19,273	15,478	15,118	97,771
Total receipts.....	923,365	309,909	242,602	57,556	43,431	39,336	230,531
Finance, insurance, real estate: ⁵							
Number of returns.....	425,249	381,837	28,408	7,303	3,549	1,920	2,232
Total assets or liabilities.....	2,176,652	52,316	94,510	117,676	124,047	133,572	1,654,531
Total receipts.....	303,199	23,348	16,002	13,431	13,525	15,582	221,311
Services:							
Number of returns.....	388,832	379,983	8,134	434	138	74	69
Total assets or liabilities.....	84,980	23,037	19,441	6,612	4,781	5,043	21,066
Total receipts.....	115,589	65,883	19,492	6,230	4,045	4,974	14,965

¹ Includes returns of corporations with zero assets.

² Includes data not shown separately. ³ Excludes wholly tax-exempt interest but includes constructive taxable income from related foreign corporations. ⁴ After investment credit and work incentive credit. Includes additional tax for tax preferences, taxes from recomputing prior year investment credit and prior year work incentive credit. ⁵ Includes lessors of real property.

NO. 916. ACTIVE CORPORATIONS—INCOME TAX RETURNS: 1950 TO 1974

[In billions of dollars, except number of returns. Beginning 1955, data are estimates based on samples. See head-note and footnotes, table 434. See also *Historical Statistics, Colonial Times to 1970*, series V 129-136]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974
Number of returns.....1,000.....	629.3	807.3	1,140.6	1,424.0	1,665.5	1,812.7	1,904.7	1,965.9
With assets, end of year.....1,000.....	570.0	747.0	1,095.4	1,380.2	1,619.1	1,758.5	1,844.4	1,903.4
No assets, end of year.....1,000.....	59.4	60.3	45.1	43.8	46.4	54.2	60.3	62.5
Total receipts	458.1	642.2	849.1	1,194.6	1,750.7	2,171.2	2,557.7	3,089.7
Business receipts.....	439.9	612.7	802.8	1,120.4	1,620.9	2,007.3	2,361.4	2,854.8
Other taxable receipts.....	17.9	29.0	45.3	72.5	126.1	159.2	191.0	229.1
Tax-exempt interest, government obligations.....	.4	.6	1.0	1.8	3.8	4.7	5.3	5.8
Total deductions	415.3	594.3	804.6	1,119.9	1,682.8	2,071.7	2,435.0	2,941.5
Cost of sales and operations.....	321.3	448.6	577.0	793.0	1,146.3	1,412.5	1,682.4	2,068.1
Interest paid.....	3.2	7.1	14.6	25.4	62.1	72.9	99.6	132.9
Taxes paid ¹	9.0	14.2	21.1	31.7	49.5	60.1	68.2	74.7
Depreciation and amortization.....	7.9	16.0	23.4	34.4	53.7	64.7	71.3	79.4
Depletion.....	1.7	2.8	3.5	4.8	5.6	6.9	9.3	19.0
Other deductions.....	72.2	105.7	164.9	229.6	365.6	454.7	504.1	567.4
Receipts minus deductions	42.8	47.9	44.5	74.7	67.9	99.5	122.7	148.2
Net income less deficit ²	42.6	47.5	43.5	73.9	65.9	96.8	120.4	146.0
Tax after investment credit ³	17.3	21.7	21.9	29.9	32.4	39.9	48.7	61.9
Investment credit	(X)	(X)	(X)	1.7	.9	3.0	3.8	4.2
Foreign tax credit	(NA)	1.0	1.2	2.6	4.5	6.3	9.6	20.8
Net income less deficit after tax ⁴	25.3	25.7	21.6	43.9	33.5	56.9	71.8	84.1

NA Not available. X Not applicable.

¹ Excludes (a) Federal income and profits taxes; (b) estate, inheritance, legacy, succession, and gift taxes; (c) income and profits taxes paid to a foreign country or U.S. possession if any portion was claimed as a tax credit; (d) taxes assessed against certain local benefits; (e) Federal taxes on tax-free covenant bonds; and (f) unidentifiable amounts of taxes reported in "Cost of sales and operations," beginning 1955.

² Excludes wholly tax-exempt interest; beginning 1965, includes income from related foreign corporations considered received for tax purposes only. See footnote 3, table 893.

³ For 1965, includes tax from recomputing prior year investment credit; for 1970, includes the tax surcharge, beginning 1970, includes additional tax for tax preferences; beginning 1972, tax is after the work incentive credit. Beginning 1973, includes tax from recomputing prior year work incentive credit.

⁴ Beginning 1965, tax is after the investment credit, and, in addition, beginning 1972, tax is after the work incentive credit.

Source: U.S. Internal Revenue Service, *Statistics of Income, Corporation Income Tax Returns*, annual.

NO. 917. LARGEST INDUSTRIAL CORPORATIONS AND RETAILING COMPANIES—SALES, BY GROUP RANK: 1955 TO 1976

[Excludes large privately owned companies that do not publish sales. Includes sales of subsidiaries when they are consolidated. **Industrial corporations:** Includes service and rental revenues, but companies must derive more than 50 percent of revenues from manufacturing or mining for fiscal years ending not later than December 31 of year stated, except 1976, no later than January; excludes excise taxes collected by manufacturer. **Retailing companies:** Includes all operating revenues for fiscal years ending not later than March or April following year stated]

RANK BY SALES GROUP	VOLUME OF SALES (bil. dol.)						PERCENT DISTRIBUTION					
	1955	1960	1965	1970	1975	1976	1955	1960	1965	1970	1975	1976
INDUSTRIAL CORPORATIONS												
First 500 largest	161.4	204.7	298.1	463.9	865.2	971.1	100.0	100.0	100.0	100.0	100.0	100.0
Lowest hundred.....	6.3	8.5	12.5	19.9	34.8	38.2	3.9	4.1	4.2	4.3	4.0	3.9
Second hundred.....	8.6	11.7	17.7	28.8	49.0	54.1	5.3	5.7	5.9	6.2	5.7	5.6
Third hundred.....	13.7	18.5	27.7	43.6	78.5	88.2	8.5	9.0	9.3	9.4	9.1	9.1
Fourth hundred.....	24.5	32.6	47.2	82.7	141.8	155.3	15.2	15.9	15.8	17.8	16.4	16.0
Highest hundred.....	108.3	133.4	193.0	288.9	561.1	635.4	67.1	65.2	64.7	62.3	64.9	65.4
Second 500 largest	(NA)	15.7	(NA)	48.3	82.6	89.2	(X)	(X)	(X)	(X)	(X)	(X)
RETAILING COMPANIES												
50 largest	125.6	135.7	149.0	73.6	121.7	132.6	100.0	100.0	100.0	100.0	100.0	100.0
Lowest ten.....	1.2	2.2	3.3	4.4	7.5	8.2	4.6	6.2	6.7	5.9	6.2	6.2
Second ten.....	1.7	2.8	4.4	6.8	10.4	11.4	6.7	7.9	9.2	9.3	8.5	8.6
Third ten.....	2.7	4.1	6.1	9.0	14.1	15.0	10.6	11.5	12.4	12.3	11.6	11.3
Fourth ten.....	4.5	6.4	9.0	13.9	23.4	24.8	17.6	18.0	18.3	18.9	19.2	18.7
Highest ten.....	15.5	20.1	26.2	39.4	66.9	73.2	60.5	56.4	53.5	53.6	55.0	55.2

NA Not available. X Not applicable. ¹ Includes wholesalers.

Source: Fortune, New York, N.Y., adapted from *The Fortune Directory*, May, June, and July issues. (Copyright, by Time Inc.)

NO. 918. LARGEST INDUSTRIAL CORPORATIONS AND RETAILING COMPANIES—ASSETS, NET INCOME, AND EMPLOYEES, BY RANK OF SALES: 1965 TO 1976

[Assets and net income in billions of dollars, employees in thousands, except percent. Minus sign (-) denotes loss. See headnote, table 917]

GROUP RANK BY SALES	ASSETS ¹				NET INCOME ²				EMPLOYEES ³			
	1965	1970	1975	1976	1965	1970	1975	1976	1965	1970	1975	1976
INDUSTRIAL CORPS.												
First 500 largest.....	251.7	432.1	668.5	736.9	20.1	21.7	37.8	49.4	11,279	14,608	14,413	14,836
Lowest hundred.....	10.1	16.8	19.8	28.0	.7	.8	-.8	.5	569	697	471	770
Second hundred.....	13.9	23.2	35.5	41.7	1.0	1.1	1.6	2.3	789	1,044	993	1,128
Third hundred.....	22.5	39.0	59.9	72.5	1.6	1.4	3.2	4.2	1,178	1,500	1,570	1,556
Fourth hundred.....	36.5	74.5	113.7	117.7	2.7	3.8	6.3	7.8	1,809	2,662	2,701	2,845
Highest hundred.....	169.0	278.6	439.5	477.0	14.1	14.5	27.5	34.5	6,934	8,706	8,679	8,537
Percent of total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lowest hundred.....	4.0	3.9	3.0	3.8	3.7	3.8	-2.1	1.1	5.0	4.8	3.3	5.2
Second hundred.....	5.5	5.4	5.3	5.7	5.0	4.9	4.2	4.6	7.0	7.1	6.9	7.6
Third hundred.....	8.9	9.0	9.0	9.8	7.8	6.6	8.5	8.5	10.4	10.3	10.9	10.5
Fourth hundred.....	14.4	17.2	17.0	16.0	13.3	17.6	16.7	15.8	16.0	18.2	18.7	19.2
Highest hundred.....	67.1	64.5	65.7	64.7	70.2	67.1	72.8	69.9	61.5	60.0	60.2	57.5
Second 500 largest.....	(NA)	38.8	60.9	64.6	(NA)	1.5	3.3	4.0	(NA)	1,720	1,861	1,875
RETAILING COS.												
50 largest.....	19.3	31.6	50.9	54.8	1.2	1.5	2.4	2.9	1,609	2,371	2,653	2,744
Lowest ten.....	1.5	1.5	5.2	4.4	.1	.1	.2	.1	120	151	197	187
Second ten.....	1.3	2.5	3.7	4.9	.1	.1	.1	.3	103	211	279	337
Third ten.....	2.3	4.5	4.7	4.8	.1	.1	.2	.2	180	294	277	265
Fourth ten.....	3.5	4.8	8.4	8.9	.2	.2	.4	.4	286	366	426	424
Highest ten.....	10.8	18.2	28.9	31.8	.7	1.0	1.5	1.8	920	1,348	1,474	1,537
Percent of total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lowest ten.....	8.0	4.8	10.2	8.1	6.0	5.1	8.4	4.9	7.5	6.4	7.4	6.8
Second ten.....	6.5	7.9	7.3	8.9	5.7	5.9	6.0	10.3	6.4	8.9	12.5	11.9
Third ten.....	11.8	14.3	9.2	8.8	9.9	8.4	7.8	5.9	11.2	12.4	10.4	9.8
Fourth ten.....	18.0	15.3	16.5	16.2	17.9	13.5	15.2	15.0	17.7	15.4	16.1	15.5
Highest ten.....	55.7	57.7	56.8	58.0	60.5	67.1	62.6	63.9	57.2	56.9	55.6	56.0

NA Not available. ¹ Total assets employed in business at end of fiscal year, less depreciation and depletion. ² After taxes, special charges, and credits. ³ As of year end, or yearly average.

NO. 919. 500 LARGEST INDUSTRIAL CORPORATIONS—SELECTED FINANCIAL ITEMS, BY INDUSTRY: 1976

[Figures are medians based on sales in 1976. See headnote, table 917. For definition of median, see p. xii]

INDUSTRY	Assets per employee	Sales per employee	Sales per dollar of stockholders' equity	Return on stockholders' equity	Return on sales	CHANGE FROM 1975 IN—	
						Sales	Profit
	\$1,000	\$1,000	Dollars	Percent	Percent	Percent	Percent
Total.....	38.9	56.1	2.70	13.3	4.6	12.2	30.4
Petroleum refining.....	239.3	256.9	2.70	13.0	5.0	15.4	18.5
Mining, crude oil production.....	190.9	96.4	1.46	16.5	11.0	14.2	10.3
Broadcasting and motion picture.....	79.9	97.0	3.04	21.0	6.4	9.1	21.6
Tobacco.....	70.2	61.5	2.19	15.5	5.0	6.4	4.5
Beverages.....	66.6	75.2	2.33	15.4	5.0	12.5	19.1
Chemicals.....	59.1	67.8	2.27	14.1	5.8	12.6	18.3
Metal manufacturing.....	58.4	61.8	2.25	7.8	3.6	15.6	8.3
Paper, fiber and wood products.....	51.5	60.8	2.24	12.9	5.7	18.5	37.3
Pharmaceuticals.....	43.0	47.4	1.89	15.8	8.5	11.5	10.7
Shipbuilding, RR and transport. equip.....	42.9	48.3	3.38	13.9	4.7	14.8	14.4
Glass, concrete, abrasives, gypsum.....	39.5	48.2	2.29	11.9	4.5	17.4	39.1
Soaps, cosmetics.....	39.4	63.5	2.65	16.3	6.1	10.8	20.6
Publishing, printing.....	37.9	51.4	2.04	14.7	6.9	14.1	48.9
Food.....	35.8	86.5	4.85	12.8	2.9	6.9	12.6
Industrial and farm equipment.....	35.2	45.7	2.64	13.4	5.4	10.9	27.6
Rubber, plastic products.....	34.3	46.2	2.88	7.3	2.5	10.4	8.0
Office equipment (incl. computers).....	34.2	36.3	2.60	11.5	4.5	9.3	20.5
Motor vehicles.....	32.5	52.8	3.64	13.8	4.0	16.7	138.5
Metal products.....	30.1	47.0	3.20	13.8	4.9	9.1	33.7
Measuring, scientific, photo equip.....	29.0	35.8	1.84	12.9	8.1	9.3	17.4
Musical instr., toys, sporting goods.....	27.6	36.3	3.05	11.9	4.7	11.2	83.2
Electronics, appliances.....	26.1	38.2	2.87	14.1	4.5	11.5	33.6
Aerospace.....	24.3	43.0	3.82	14.6	3.1	6.3	32.2
Textiles, vinyl flooring.....	21.4	32.6	2.87	10.7	3.8	14.2	76.7
Apparel.....	15.2	26.6	3.39	11.2	3.1	13.0	64.3

No. 920. U.S. MULTINATIONAL COMPANIES—SELECTED BALANCE SHEET AND INCOME ITEMS: 1966 AND 1970

[In billions of dollars, except as noted. Based on sample survey for 1970 covering 298 U.S. enterprises and their 5,237 majority-owned foreign affiliates. Assets of the U.S. enterprises covered in the sample account for 89 percent of the assets of all U.S. multinational companies in 1966. Manufacturing enterprises account for 75 percent of the assets of all direct foreign investors]

ITEM	1966				1970					
	U.S. enterprises			Majority owned foreign affiliates	U.S. enterprises			Majority-owned foreign affiliates		
	Total	Manufacturing	Petroleum		Total	Manufacturing	Petroleum	Total	Manufacturing	Petroleum
Assets, total ¹	247.4	140.1	50.8	66.2	350.5	200.7	68.3	102.4	42.9	35.0
Net property, plant and equip.....	115.3	50.5	26.3	27.8	167.7	75.7	36.2	41.3	16.5	17.4
Investment in foreign affiliates.....	19.7	9.9	8.7	(X)	29.7	15.1	12.8	(X)	(X)	(X)
Other foreign assets.....	2.7	1.7	.8	(X)	4.0	2.7	1.0	(X)	(X)	(X)
Liabilities.....	100.7	59.5	15.4	35.3	164.0	95.6	23.6	59.8	24.0	21.8
Net worth.....	146.7	80.6	35.4	30.8	186.5	105.1	44.7	42.6	18.9	13.2
Income, total.....	243.4	167.2	37.4	72.6	319.3	213.5	51.2	117.5	52.9	43.7
Net sales of goods or services.....	236.8	164.0	34.8	71.2	309.2	208.0	47.7	114.7	52.2	42.5
Income from all foreign affiliates.....	3.7	1.7	1.7	(X)	5.9	2.9	2.6	(X)	(X)	(X)
Other income.....	2.8	1.5	.8	1.4	4.2	2.6	.8	2.8	.6	1.2
Costs and expenses, total ¹	213.3	147.4	32.8	64.2	293.0	197.9	46.2	104.0	49.0	36.6
Depreciation, depletion, etc. ²	11.0	6.2	2.3	3.0	15.4	8.7	3.2	4.4	2.2	1.5
Costs of goods or services sold.....	156.6	113.6	20.3	50.7	207.5	147.6	29.1	76.2	36.8	25.5
Selling and expenses.....	29.9	19.9	4.2	(NA)	46.2	29.7	6.0	11.7	6.0	2.0
Taxes other than income taxes.....	10.7	5.4	3.9	5.6	14.2	7.1	5.0	7.6	2.0	(NA)
Net income after income taxes.....	18.3	11.3	3.7	4.3	16.4	9.1	4.0	7.3	2.2	3.5
Before income taxes.....	30.1	19.8	4.5	8.4	26.3	15.6	4.9	13.5	3.9	7.1
Number of employees..... mil.	8.0	5.9	.5	2.4	8.9	6.3	.5	3.0	2.2	.3
Payroll costs of employees.....	61.8	48.8	4.2	9.4	85.1	65.2	5.6	14.5	10.4	1.8

NA Not available. X Not applicable. ¹ Includes items not shown. ² Includes related charges.
Source: U.S. Bureau of Economic Analysis, *Special Survey of U.S. Multinational Companies, 1970*.

No. 921. U.S. MULTINATIONAL COMPANIES—SALES BY MAJORITY-OWNED FOREIGN AFFILIATES: 1966 TO 1975

[In billions of dollars, except percent. Universe estimates based on a sample survey covering foreign affiliates with U.S. ownership of at least 50 percent, directly or indirectly held]

INDUSTRY AND AREA OR COUNTRY	1966	1968	1970	1972	1974	1975			
						Total sales	Percent		
							Local sales ¹	To U.S.	Elsewhere
Total².....	97.8	120.8	155.9	212.3	437.7	458.3	66	7	27
Petroleum.....	27.5	34.0	42.4	59.2	184.9	178.7	53	8	39
Manufacturing ²	47.4	59.6	78.3	107.6	176.7	192.3	77	6	17
Food products.....	5.6	6.2	7.5	10.4	17.0	18.3	92	1	7
Paper and allied products.....	1.9	2.6	3.4	5.2	9.3	9.2	72	12	17
Chemicals and allied products.....	7.4	9.8	12.6	17.8	36.2	37.6	79	1	19
Rubber products.....	1.8	1.9	2.4	3.2	5.0	5.4	85	1	14
Primary and fabricated metals.....	3.9	5.3	7.6	7.6	12.5	12.6	83	3	14
Machinery (except electrical).....	6.5	8.6	12.3	17.0	27.4	32.1	65	5	31
Electrical machinery.....	4.4	5.1	7.7	10.8	17.4	18.8	83	4	13
Transportation equipment.....	11.2	14.2	16.8	24.4	32.7	38.0	71	15	14
Trade.....	14.1	16.2	21.6	30.1	46.1	52.2	61	5	34
Mining and smelting.....	3.3	3.9	4.5	3.2	5.1	4.6	25	25	50
Developed countries.....	71.6	88.0	116.2	158.2	272.2	302.8	76	5	18
Canada.....	23.9	29.8	35.1	45.0	71.4	78.5	78	16	6
Europe.....	40.5	49.1	68.4	95.9	165.8	186.5	73	2	20
European communities (9 countries).....	34.3	41.2	57.6	80.7	138.5	155.8	75	2	23
France.....	5.3	6.5	8.3	13.1	22.1	26.1	81	1	17
Germany.....	7.7	8.8	14.6	20.5	34.6	38.1	83	2	15
United Kingdom.....	13.4	15.1	18.5	24.5	40.3	45.9	76	1	23
Other.....	8.0	10.7	16.2	22.5	41.6	45.7	64	2	34
Japan.....	6.1	7.9	10.9	15.2	27.2	30.7	61	2	37
Australia, New Zealand, and So. Africa.....	2.1	2.9	4.2	6.7	16.8	17.8	95	1	5
Other.....	5.1	6.2	8.5	10.6	18.2	20.1	89	1	10
Developing countries.....	23.5	29.2	35.1	48.3	148.3	141.8	42	10	48
Latin America.....	14.3	17.4	20.1	28.7	51.6	57.2	66	12	22
Other Africa.....	1.9	2.8	3.6	4.5	10.1	9.2	47	20	33
Middle East.....	4.0	4.7	5.8	11.1	64.1	53.7	10	7	84
Other Asia and Pacific.....	3.3	4.3	5.7	9.1	22.5	21.7	57	12	31
International and unallocated.....	2.7	3.6	4.6	5.8	17.2	13.7	75	7	19

¹ Local sales represent sales to customers in the country of location of the affiliate. ² Includes other industries, not shown separately. ³ Includes Belgium, Denmark, Ireland, Italy, Luxembourg, and the Netherlands.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, February 1977.

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No. 922. U.S. MULTINATIONAL COMPANIES—CAPITAL EXPENDITURES, BY MAJORITY-OWNED FOREIGN AFFILIATES: 1970 TO 1976

[Represents expenditures made to acquire, add to, or improve property, plant, and equipment. See headnote, table 921. Minus sign (-) denotes decrease]

INDUSTRY AND AREA OR COUNTRY	EXPENDITURES									ANNUAL PERCENT CHANGE		
	Total (bil. dol.)						Percent			1974	1975	1976 ¹
	1970	1972	1973	1974	1975	1976 ¹	1974	1975	1976			
Total	14.1	16.7	20.6	25.7	27.0	25.9	100.0	100.0	100.0	24	5	-4
By industry of affiliate:												
Mining and smelting.....	1.2	1.1	1.1	1.1	1.2	.9	4.3	4.4	3.5	-2	9	-24
Petroleum.....	4.0	5.2	6.6	8.2	9.5	9.3	31.9	35.2	35.9	25	15	-2
Manufacturing.....	6.5	7.2	9.2	11.6	11.2	10.7	45.1	41.5	41.3	26	-3	-5
Food products.....	.4	.4	.6	.7	.7	.7	6.0	6.3	6.5	24	-8	2
Paper and allied products.....	.4	.5	.6	.9	.7	.6	7.8	6.3	5.6	40	-21	-18
Chemicals and allied products.....	1.2	1.2	1.4	2.1	2.6	2.6	18.1	23.2	24.3	54	25	(2)
Rubber products.....	.2	.3	.3	.4	.4	.3	3.4	3.6	2.8	6	3	-10
Primary and fabricated metals.....	.7	.6	.8	.7	.6	.5	6.0	5.4	4.7	-14	-5	-17
Machinery (except electrical).....	1.6	1.9	2.6	3.1	2.8	2.8	26.7	25.0	26.2	19	-10	(2)
Electrical machinery.....	.6	.6	.9	1.1	.9	.8	9.5	8.0	7.5	26	-23	-5
Transportation equipment.....	1.0	.9	1.2	1.6	1.4	1.3	13.8	12.5	12.1	29	-11	-10
Other.....	.5	.7	.8	1.1	1.2	1.1	9.5	10.7	10.3	30	10	-10
Trade.....	1.0	1.4	1.7	2.1	2.2	1.9	8.2	8.1	7.3	26	4	-16
Other industries.....	1.4	1.8	2.0	2.6	2.9	3.1	10.1	9.6	12.0	27	13	7
By area of affiliate:												
Developed countries.....	10.1	11.8	14.2	17.8	18.7	18.1	69.3	69.3	69.9	26	5	-3
Canada.....	3.0	3.5	4.2	5.5	5.1	5.5	30.9	27.3	30.4	32	-9	9
Europe.....	5.7	6.8	8.3	10.2	11.7	10.9	57.3	62.6	60.2	23	14	-6
European Communities (9 countries).....	5.1	6.0	7.3	8.8	9.9	9.3	86.3	84.6	85.3	21	13	-6
France.....	.8	1.1	1.3	1.5	1.8	1.3	17.0	18.2	14.0	10	22	-29
Germany.....	1.2	1.6	1.9	2.3	2.1	2.0	26.1	21.2	21.5	21	-9	-5
United Kingdom.....	1.5	1.7	2.4	2.7	3.7	4.0	30.7	37.4	43.0	14	37	8
Other ²	1.5	1.6	1.6	2.4	2.4	2.1	27.3	24.2	22.6	39	(2)	-12
Other Europe.....	.6	.8	1.0	1.4	1.7	1.6	13.7	14.5	14.7	36	22	-9
Japan.....	.5	.6	.6	.8	.7	.6	4.5	3.7	3.3	30	-8	-22
Australia, New Zealand, South Africa.....	.9	.9	1.0	1.2	1.2	1.1	6.7	6.4	6.1	20	(2)	-11
Developing countries.....	3.3	3.8	4.4	5.8	6.8	6.2	22.6	25.2	23.9	33	17	-8
Latin America.....	2.0	2.0	2.3	2.9	3.0	2.8	50.0	44.1	45.2	27	1	-6
Other Africa.....	.5	.4	.4	.6	.7	.6	10.3	10.3	9.7	38	22	-10
Middle East.....	.2	.7	1.0	1.2	1.8	1.9	20.7	26.5	30.6	30	48	6
Other Asia and Pacific.....	.6	.7	.7	1.1	1.3	.9	19.0	19.1	14.5	51	20	-34
International and unallocated.....	.7	1.1	2.1	2.0	1.6	1.6	7.8	5.9	6.2	-2	-23	1

¹ Less than .5 percent. ² Projection based on survey of Dec. 1976.

³ See footnote 3, table 921.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, March 1977.

No. 923. LARGEST MANUFACTURING CORPORATIONS—PERCENT SHARE OF ASSETS HELD: 1950 TO 1976

[Corporations ranked on value of assets in each year. Prior to 1969, excludes newspapers]

CORPORATION RANK GROUP	1950	1955	1960	1965	1968	1969	1970	1971	1972	1973	1974 ¹	1975 ¹	1976 ¹
100 largest.....	39.7	44.3	46.4	46.5	49.1	48.2	48.5	48.9	47.6	44.7	44.4	45.0	45.5
200 largest.....	47.7	53.1	56.3	56.7	60.8	60.1	60.4	61.0	60.0	56.9	56.7	57.5	58.0

¹ Data not comparable with years prior to 1974 due to internal changes.

Source: U.S. Federal Trade Commission, unpublished data.

No. 924. LARGEST MANUFACTURING COMPANIES—PERCENT SHARE OF TOTAL VALUE ADDED BY MANUFACTURE: 1947 TO 1972

[1962, 1966, and 1970 based on Annual Survey of Manufactures, other years on Census of Manufactures. "Largest companies" are those which were largest in each of the specified years in terms of value added. See also *Historical Statistics, Colonial Times to 1970*, series P 177-180]

COMPANY RANK	1947	1954	1958	1962	1963	1966	1967	1970	1972
Largest 50 companies.....	17	23	23	24	25	25	25	24	25
Largest 100 companies.....	23	30	30	32	33	33	33	33	33
Largest 150 companies.....	27	34	35	36	37	38	38	38	39
Largest 200 companies.....	30	37	38	40	41	42	42	43	43

Source: U.S. Bureau of the Census, *Concentration Ratios in Manufacturing Industry: 1972*, MC 72-SR-2.

NO. 925. CORPORATE MANUFACTURING ASSETS AND PROFITS, BY ASSET SIZE: 1970 TO 1976

[Corporations and assets as of end of 4th quarter; profit for entire year. Corporations under \$10 million based on sample; \$10 million and over based on complete canvass. For further detail regarding methodology, see source for fourth quarter, 1976]

ITEM	Total	ASSET SIZE-CLASS						
		Under \$10 mil.	\$10-\$25 mil.	\$25-\$50 mil.	\$50-\$100 mil.	\$100-\$250 mil.	\$250 mil.-\$1 bil.	\$1 bil. and over
1970								
Corporations.....number..	197,807	195,000	1,202	533	366	289	218	102
Assets, total.....mil. dol..	578,234	69,101	20,471	20,138	25,946	47,783	112,475	282,320
Percent.....	100.0	12.0	3.5	3.5	4.5	8.3	19.5	48.8
Net profit, total ².....mil. dol..	28,572	2,812	811	836	1,101	2,315	5,802	14,832
Percent.....	100.0	9.8	2.8	2.9	3.9	8.1	20.5	51.9
1974								
Corporations.....number..	(NA)	(NA)	1,699	708	434	383	284	137
Assets, total.....mil. dol..	768,954	97,858	28,908	24,734	30,690	60,262	141,821	384,681
Percent.....	100.0	12.7	3.8	3.2	4.0	7.8	18.4	50.0
Net profit, total ².....mil. dol..	58,747	7,717	1,896	1,385	2,126	3,700	9,661	32,260
Percent.....	100.0	13.1	3.2	2.4	3.6	6.3	16.4	54.9
1975								
Corporations.....number..	(NA)	(NA)	1,750	705	450	392	276	151
Assets, total.....mil. dol..	810,910	98,147	31,307	24,720	31,395	62,524	139,113	423,705
Percent.....	100.0	12.1	3.9	3.0	3.9	7.7	17.2	52.3
Net profit, total ².....mil. dol..	49,135	6,212	1,831	1,327	1,676	3,553	8,165	26,370
Percent.....	100.0	12.6	3.7	2.7	3.4	7.2	16.6	53.7
1976								
Corporations.....number..	(NA)	(NA)	(NA)	756	472	402	304	162
Assets, total.....mil. dol..	882,577	98,367	32,244	26,491	32,970	62,993	150,359	479,153
Percent.....	100.0	11.1	3.7	3.0	3.7	7.1	17.0	54.3
Net profits, total ².....mil. dol..	64,348	7,800	2,238	1,713	2,070	3,953	10,382	36,192
Percent.....	100.0	12.1	3.5	2.7	3.2	6.1	16.1	56.2

NA Not available. ¹ Data derived from U.S. Internal Revenue Service, *Statistics of Income*. ² After taxes. Source: U.S. Federal Trade Commission, *Quarterly Financial Report for Manufacturing Corporations*.

NO. 926. LARGE MANUFACTURING CORPORATIONS—SALES, PROFITS, AND DIVIDENDS FOR SELECTED INDUSTRIES: 1970 TO 1976

[In billions of dollars. Includes all public manufacturing corporations with sales of \$700 million or more for which a consistent set of data could be constructed. A few companies with sales of \$500 million to \$700 million are included to obtain increased representation in a particular industry]

INDUSTRY	1970	1973	1974	1975	1976	INDUSTRY	1970	1973	1974	1975	1976
Total (170 corp.): ¹						Primary metals and products (23):					
Sales, net.....	304.9	442.0	564.9	586.9	667.8	Sales, net.....	30.8	42.4	54.0	48.6	54.0
Profits before taxes.....	29.3	53.8	67.9	60.4	71.9	Profits before taxes.....	2.1	3.2	5.6	2.9	2.8
Profits after taxes.....	12.7	25.1	35.3	33.3	37.2	Profits after taxes.....	.8	1.3	2.4	1.1	1.2
Dividends.....	10.0	11.5	12.4	12.5	14.5	Dividends.....	.9	.8	1.0	.9	.9
Food and kindred products (28):						Machinery (27):					
Sales, net.....	32.0	42.6	52.8	57.1	62.6	Sales, net.....	46.2	64.7	74.0	79.0	87.3
Profits before taxes.....	3.1	4.0	4.6	5.0	5.8	Profits before taxes.....	4.9	7.7	7.8	8.7	11.3
Profits after taxes.....	1.6	1.9	2.3	2.5	2.9	Profits after taxes.....	2.3	3.4	3.5	3.9	5.1
Dividends.....	.8	.9	1.0	1.1	1.3	Dividends.....	1.3	1.6	2.0	2.0	2.4
Chemical and allied products (22):						Motor vehicles and equipment (9):					
Sales, net.....	31.1	43.2	55.1	57.7	64.1	Sales, net.....	48.9	83.0	80.4	85.9	107.6
Profits before taxes.....	3.9	6.3	8.3	7.1	8.2	Profits before taxes.....	2.2	7.4	2.9	3.1	8.9
Profits after taxes.....	1.8	2.8	3.4	3.2	3.7	Profits after taxes.....	.8	3.4	1.2	1.6	4.0
Dividends.....	1.3	1.5	1.6	1.7	1.9	Dividends.....	1.4	2.1	1.5	1.1	2.1
Petroleum refin. (15):											
Sales, net.....	61.4	93.5	165.2	172.6	196.2						
Profits before taxes.....	8.5	17.5	30.7	26.3	25.9						
Profits after taxes.....	3.4	8.9	18.9	17.8	16.3						
Dividends.....	2.9	3.1	3.6	3.8	4.1						

¹ Includes 46 companies in 6 industries not shown separately. Figures in parentheses represent number of corporations.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*.

No. 927. CORPORATE PROFITS, TAXES, AND DIVIDENDS: 1950 TO 1976

[In billions of dollars. Prior to 1960, excludes Alaska and Hawaii. Covers corporations organized for profit. Represents profits accruing to U.S. residents, without deduction of depletion charges and exclusive of capital gains and losses; intercorporate dividends from profits of domestic corporations are eliminated; net receipts of dividends and branch profits from abroad are added]

ITEM	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976, prel.
Profits before taxes	42.6	48.4	48.5	75.2	71.5	82.0	96.2	115.8	127.6	114.5	147.9
Less: Income tax liability (Fed., State)	17.9	22.0	22.7	30.9	34.5	37.7	41.5	48.7	52.4	49.2	64.4
Equals: Profits after taxes	24.7	26.4	25.8	44.3	37.0	44.3	54.6	67.1	75.2	65.3	83.6
Less: Net dividends	8.8	10.3	12.9	19.1	22.9	23.0	24.6	27.8	30.8	32.1	35.1
Equals: Undistributed profits	15.9	16.1	13.0	25.2	14.1	21.3	30.0	39.3	44.4	33.2	48.4
Capital consumption allowances ²	8.8	17.4	25.3	37.4	56.6	60.9	67.9	73.7	81.6	89.4	97.3
Profits after tax plus capital consumption allowances	33.5	43.8	51.1	81.7	93.6	105.2	122.5	140.8	156.8	154.7	180.9

¹ Represents amounts disbursed to U.S. residents, measured after eliminations of intercorporate dividends.

² Without capital consumption adjustment. Includes depreciation and accidental damages.

No. 928. CORPORATE PROFITS, BY INDUSTRY: 1960 TO 1975

[In billions of dollars. Profits are without inventory valuation and capital consumption adjustments. Minus sign (-) denotes loss. See headnote, table 927]

YEAR	All industries	Manufacturing	Wholesale, retail trade	Finance, insurance, real estate	Communication ¹	Contract construction	Services	Transportation	Mining	Agriculture ²	Rest of the world
BEFORE TAXES											
1960	48.5	23.7	4.9	8.4	6.5	.5	.8	.9	.8	.1	1.9
1965	75.2	39.4	8.6	8.9	8.9	1.4	1.5	2.2	.9	.2	3.3
1969	83.4	39.9	12.0	12.7	9.9	2.0	1.8	.5	.7	.2	3.7
1970	71.5	29.7	11.3	13.7	8.5	1.9	1.6	.1	.9	.1	3.8
1971	82.0	35.5	13.1	15.4	7.8	2.2	1.8	.6	.8	.2	4.6
1972	96.2	43.9	16.0	16.6	7.7	2.1	2.3	1.5	.7	.5	4.8
1973	115.8	54.2	21.4	16.7	7.8	2.1	3.1	1.2	1.5	.8	6.8
1974	127.6	58.7	24.7	14.4	6.8	2.4	3.0	2.3	3.7	.4	11.2
1975	114.5	52.1	25.5	13.0	7.5	2.1	2.9	.8	4.1	.4	6.2
AFTER TAXES											
1960	25.8	12.4	2.5	4.3	3.2	.2	.4	.3	.7	(2)	1.9
1965	44.3	22.5	5.3	4.5	4.9	.9	.8	1.3	.6	.1	3.3
1969	43.8	20.2	6.9	5.4	5.1	1.2	.8	-.1	.5	.1	3.7
1970	37.0	14.8	6.5	5.7	4.4	1.1	.6	-.3	.6	(2)	3.8
1971	44.3	18.5	7.7	6.6	4.3	1.2	.8	(2)	.6	.1	4.6
1972	54.6	24.0	10.1	7.4	4.6	1.1	1.2	.7	.4	.3	4.8
1973	67.1	30.2	13.9	6.6	4.6	1.1	1.9	.4	1.1	.5	6.8
1974	75.2	33.4	16.2	3.7	3.8	1.3	1.7	1.2	2.6	.1	11.2
1975	65.3	28.8	17.2	2.9	4.3	1.2	1.7	(2)	2.9	.2	6.2

Z Less than \$50 million. ¹ Includes public utilities. ² Includes forestry and fisheries.

Source of tables 927 and 928: U.S. Bureau of Economic Analysis, *Survey of Current Business*, monthly.

No. 929. CORPORATE PROFITS BEFORE TAXES WITH INVENTORY VALUATION ADJUSTMENT AND WITHOUT CAPITAL CONSUMPTION ADJUSTMENT: 1950 TO 1976

[In billions of dollars. 1975 and 1976 data are preliminary]

ITEM	1950	1955	1960	1965	1969	1970	1971	1972	1973	1974	1975	1976
Total	37.6	46.7	48.9	73.3	77.9	66.4	76.9	89.6	97.2	87.8	103.1	133.3
Domestic industries	36.7	45.1	47.0	70.1	74.2	62.6	72.4	84.7	80.4	76.7	97.0	125.8
Financial	3.1	4.8	7.2	7.5	11.3	12.6	14.1	15.4	16.2	14.1	12.9	14.4
Nonfinancial	33.5	40.3	39.8	62.5	62.9	50.1	58.2	69.3	74.1	62.6	84.1	111.4
Manufacturing	20.9	26.0	23.9	38.3	36.8	27.1	32.4	40.6	44.1	36.9	46.4	64.3
Wholesale and retail trade	5.0	5.0	4.9	7.9	10.1	9.4	11.7	13.3	14.7	12.4	20.9	28.1
Other	7.6	9.2	10.9	16.3	16.0	13.5	14.1	15.4	15.3	13.2	16.9	19.0
Rest of the world	1.0	1.6	1.9	3.3	3.7	3.8	4.6	4.8	6.8	11.2	6.2	7.5

Source: U.S. Council of Economic Advisers, *Economic Report of the President*, annual. Data from U.S. Bureau of Economic Analysis.

NO. 930. MANUFACTURING CORPORATIONS—SALES, PROFITS, AND STOCKHOLDERS' EQUITY: 1960 TO 1976

 [In billions of dollars. Prior to 1970, excludes newspapers. For comparability of data from year to year, see source for fourth quarter, 1976. See also *Historical Statistics, Colonial Times to 1970*, series P 93-106]

YEAR	ALL MANUFACTURING CORPORATIONS				DURABLE GOODS INDUSTRIES				NONDURABLE GOODS INDUSTRIES			
	Sales (net)	Profits		Stockholders' equity ¹	Sales (net)	Profits		Stockholders' equity ¹	Sales (net)	Profits		Stockholders' equity ¹
		Before taxes	After taxes			Before taxes	After taxes			Before taxes	After taxes	
1960	345.7	27.5	15.2	165.4	173.9	14.0	7.0	82.3	171.8	13.5	8.2	83.1
1965	492.2	46.5	27.5	211.7	257.0	26.2	14.5	105.4	235.2	20.3	13.0	106.3
1970	708.8	48.1	28.6	306.8	363.1	23.0	12.9	155.1	345.7	25.2	15.7	151.7
1971	751.4	53.2	31.3	320.9	382.5	26.5	14.5	160.6	368.9	26.7	16.7	160.3
1972	849.5	63.2	36.5	343.4	435.8	33.6	18.4	171.4	413.7	29.6	18.0	172.0
1973	1,017.2	81.4	48.1	374.1	527.3	43.6	24.8	188.7	489.9	37.8	23.3	185.4
1974	1,060.6	92.1	58.7	395.0	529.0	41.1	24.7	196.0	531.6	51.0	34.1	199.0
1975	1,065.2	79.9	49.1	423.4	521.1	35.3	21.4	208.1	544.1	44.6	27.7	215.3
1976	1,202.8	104.7	64.3	461.6	592.1	50.6	30.7	225.3	610.6	54.1	33.7	236.3

¹ Annual data are average equity for the year (using four end-of-quarter figures).

NO. 931. MANUFACTURING CORPORATIONS—RELATION OF PROFITS AFTER TAXES TO STOCKHOLDERS' EQUITY AND TO SALES: 1970 TO 1976

[Averages of quarterly figures at annual rates. Based on sample; see source for discussion of methodology]

INDUSTRY GROUP	RATIOS OF PROFITS TO STOCKHOLDERS' EQUITY (percent)								PROFITS PER DOLLAR OF SALES (cents)							
	1970	1971	1972	1973	1974 ¹	1975 ¹	1976 ¹	1970	1971	1972	1973	1974 ¹	1975 ¹	1976 ¹		
	All manufacturing corporations	9.3	9.7	10.6	12.8	14.9	11.6	14.0	4.0	4.2	4.3	4.7	5.5	4.6	5.4	
Durable goods industries	8.3	9.1	10.8	13.1	12.6	10.3	13.6	3.5	3.8	4.2	4.7	4.7	4.1	5.2		
Stone, clay, and glass products	6.9	9.1	10.1	11.2	10.6	8.3	11.9	3.6	4.3	4.7	4.8	4.4	3.4	4.8		
Primary metal industries	7.0	4.8	6.0	10.1	16.5	8.6	8.2	4.1	2.8	3.3	4.6	6.6	4.4	3.9		
Iron and steel	4.3	4.5	6.0	9.5	17.0	10.9	9.0	2.5	3.5	3.1	4.1	6.3	5.0	4.1		
Nonferrous metals	10.6	5.1	5.9	10.8	15.8	5.0	6.8	6.2	3.2	3.7	5.3	7.0	3.1	3.6		
Fabricated metal products	8.5	8.3	10.9	13.8	16.0	13.2	15.4	3.0	2.9	3.5	4.0	4.6	4.2	4.8		
Machinery, exc. elec.	9.8	8.7	10.6	13.4	13.4	13.7	15.5	4.6	4.2	4.9	5.6	6.0	6.4	7.5		
Electrical and electronic equipment	9.1	9.4	10.8	13.0	10.9	9.0	12.5	3.3	3.5	3.9	4.3	3.9	3.2	4.4		
Trans. equipment	6.3	11.2	12.5	13.1	8.0	7.5	15.9	2.3	3.7	4.0	3.9	2.8	2.4	4.8		
Motor veh. and equipment	6.1	13.0	14.7	15.1	7.1	6.2	17.0	2.6	4.6	4.8	4.5	2.7	2.2	5.4		
Aircraft, guided missiles and parts	6.8	5.8	7.9	10.3	10.4	11.0	13.0	2.0	1.8	2.5	2.9	2.9	2.9	3.5		
Instruments and related products	14.3	13.5	14.9	15.9	16.3	13.5	14.7	7.3	7.2	8.2	8.4	9.3	7.6	7.9		
Other durable goods	(NA)	(NA)	(NA)	(NA)	11.7	8.4	14.1	(NA)	(NA)	(NA)	(NA)	3.5	2.7	4.2		
Nondurable goods industries	10.3	10.3	10.5	12.6	17.1	12.8	14.3	4.5	4.5	4.4	4.8	6.4	5.1	5.5		
Food and kindred products	10.8	11.0	11.1	12.8	13.8	14.4	14.9	2.5	2.6	2.5	2.6	2.9	3.2	3.4		
Tobacco manufactures	15.7	15.7	15.4	14.8	15.6	15.9	15.9	5.8	6.1	6.0	5.8	9.1	9.2	8.5		
Textile mill products	5.1	6.6	7.5	9.0	8.0	4.2	8.0	1.9	2.4	2.6	2.8	2.4	1.2	2.4		
Paper and allied products	7.0	4.8	9.0	12.9	17.8	12.6	13.8	3.4	2.3	4.0	5.4	7.0	5.6	5.8		
Printing and publishing	11.2	10.7	12.1	12.8	13.2	12.8	15.1	4.2	4.1	4.7	4.8	4.7	4.6	5.1		
Chemicals and allied products	11.4	11.8	12.9	14.8	18.3	15.2	15.5	5.9	6.1	6.4	6.8	8.4	7.6	7.5		
Industrial	8.5	8.7	10.0	13.8	17.6	13.2	14.2	5.0	5.0	5.5	6.5	8.4	6.9	6.9		
Drugs	17.6	17.9	18.4	19.0	18.8	17.8	18.0	9.4	9.5	10.1	10.2	12.2	12.2	12.9		
Petroleum and coal products	11.0	10.3	8.7	11.6	21.1	12.5	14.4	9.3	8.2	6.7	7.6	12.8	7.6	8.5		
Rubber and misc. plastics products	7.1	9.6	10.8	12.0	14.4	8.0	10.8	2.7	3.6	4.0	4.0	5.0	3.0	3.8		
Other nondur. goods	(NA)	(NA)	(NA)	(NA)	11.7	11.2	13.3	(NA)	(NA)	(NA)	(NA)	2.5	2.4	2.8		

NA Not available.

¹ Beginning 1974, data not strictly comparable with earlier years.

 Source of tables 930 and 931: U.S. Federal Trade Commission and U.S. Securities and Exchange Commission, *Quarterly Financial Report for Manufacturing Corporations*. In U.S. Council of Economic Advisers, *Economic Report of the President*, annual.

No. 932. MERGERS AND ACQUISITIONS—MANUFACTURING AND MINING CONCERNS ACQUIRED: 1920 TO 1976

(Prior to 1972, totals limited to actions reported by Moody's Investors Service, Inc., and Standard & Poor's Corporation. Included are partial acquisitions when they comprise whole divisions or subsidiaries of other companies. See also *Historical Statistics, Colonial Times to 1970*, series V 38]

PERIOD	Aggregate for period	Year	All concerns acquired, total	LARGE CONCERNS (ASSETS OF \$10 MILLION OR MORE) ACQUIRED ¹					
				Number of mergers			Assets acquired (mil. dol.)		
				Total	Horizontal and vertical	Conglomerate	Total	Horizontal and vertical	Conglomerate
1920-1924.....	2,235	1960.....	844	51	14	37	1,535	453	1,082
1925-1929.....	4,583	1965.....	1,008	64	16	48	3,254	573	2,681
1930-1934.....	1,687	1966.....	995	76	16	60	3,329	480	2,849
1935-1939.....	577	1967.....	1,496	133	20	118	8,259	1,431	6,828
1940-1944.....	906	1968.....	2,407	174	22	162	12,680	1,099	11,481
1945-1949.....	1,505	1969.....	2,307	138	24	114	11,043	2,915	8,128
1950-1954.....	1,424	1970.....	1,351	91	12	79	5,904	1,174	4,730
1955-1959.....	3,365	1971.....	1,011	59	8	51	2,460	578	1,882
1960-1964.....	4,366	1972.....	911	60	24	36	1,885	773	1,112
1965-1969.....	8,213	1973.....	874	64	25	39	3,149	1,093	2,056
1970-1974.....	4,749	1974.....	602	62	24	38	4,466	1,417	3,049
		1975.....	439	59	7	52	4,950	267	4,683
		1976 ²	559	77	16	61	5,961	760	5,201

¹ Concerns for which financial data are publicly available. ² Preliminary.

Source: U.S. Federal Trade Commission, *Report on Corporate Mergers and Acquisitions, 1955; Current Trends in Merger Activity, 1971*; and *Statistical Report on Mergers and Acquisitions*, annual.

No. 933. MERGERS AND ACQUISITIONS—MANUFACTURING AND MINING CONCERNS ACQUIRED, BY INDUSTRY GROUP OF ACQUIRING CONCERN: 1960 TO 1976

[See headnote, table 932]

INDUSTRY OF ACQUIRING CONCERN	1960-1964, total	1965-1969, total	1970-1974, total	1970	1971	1972	1973	1974	1975	1976, prel.
Total concerns acquired.....	4,366	8,213	4,749	1,351	1,011	911	874	602	439	559
Mining.....	209	303	258	83	76	29	34	36	27	28
Manufacturing.....	3,694	6,642	3,423	1,045	760	627	578	418	288	375
Food and kindred products.....	326	538	384	109	85	73	77	40	27	42
Tobacco manufactures.....	24	37	18	9	3	1	3	2	4	1
Textiles and apparel.....	280	439	160	47	37	31	30	15	3	13
Lumber and furniture.....	109	250	175	48	33	36	31	27	7	14
Paper and allied products.....	133	175	120	31	16	22	21	30	8	10
Printing and publishing.....	158	224	158	42	44	26	28	18	21	29
Chemicals.....	443	615	334	103	59	55	65	47	44	39
Petroleum.....	78	73	34	6	9	6	6	7	3	7
Rubber and plastics products.....	74	139	71	26	17	9	12	7	2	10
Leather products.....	32	75	41	15	11	10	5	-	3	3
Stone, clay, and glass products.....	103	212	136	43	31	18	19	25	15	13
Primary metals.....	173	366	180	57	51	25	24	23	22	22
Fabricated metal products.....	225	471	214	54	46	44	45	25	24	43
Machinery, except electrical.....	397	817	413	153	87	69	59	45	35	44
Electrical machinery.....	573	1,160	478	145	112	109	67	45	48	47
Transportation equipment.....	272	483	218	71	44	33	39	31	10	12
Professional scientific instruments.....	189	407	172	49	42	42	21	18	9	20
Miscellaneous and ordnance.....	105	161	122	32	33	18	26	13	3	6
Nonmanufacturing and unknown.....	463	1,268	1,063	223	175	255	262	148	124	156

- Represents zero.

No. 934. MERGERS AND ACQUISITIONS—COMPANIES ACQUIRED, BY ASSET SIZE OF ACQUIRING AND ACQUIRED COMPANIES AND BY INDUSTRY: 1975 AND 1976

[Excludes pending mergers and acquisitions]

ASSET SIZE	ACQUIRING COMPANY		ACQUIRED COMPANY		INDUSTRY	ACQUIRING COMPANY		ACQUIRED COMPANY	
	1975	1976	1975	1976		1975	1976	1975	1976
Total.....	889	1,081	889	1,081	Total.....	889	1,081	889	1,081
Under \$1 mil. ¹	171	181	660	776	Manufacturing.....	417	526	326	420
\$1 mil. to \$9.9 mil.....	58	58	117	146	Mining.....	34	33	29	41
\$10.0 mil. to \$49.9 mil.....	164	213	77	115	Wholesale, retail trade.....	100	110	138	162
\$50.0 mil. to \$99.9 mil.....	98	114	19	21	Service and other ²	237	293	121	125
\$100.0 mil. and over.....	398	515	16	23	Unknown.....	101	119	275	333

¹ Includes companies of unknown asset size. ² Companies in insurance, construction, farming, finance, credit, real estate, transportation, communication; electric, gas, sanitary services; and holding companies.

Source of tables 933 and 934: U.S. Federal Trade Commission, *Statistical Report on Mergers and Acquisitions*, annual.

No. 935. INDUSTRIAL AND COMMERCIAL FAILURES—NUMBER AND LIABILITIES: 1946 TO 1976

[Excludes Hawaii prior to 1975, Alaska prior to 1976. Excludes all railroad failures. Excludes real estate and financial companies. Includes voluntary discontinuances with loss to creditors and small concerns forced out of business with insufficient assets to cover all claims. See also *Historical Statistics, Colonial Times to 1970*, series V 20-30]

YEARLY AVERAGE OR YEAR	Total concerns in business ¹ (1,000)	FAILURES ²				YEAR	Total concerns in business ¹ (1,000)	FAILURES ²			
		Number	Rate per 10,000 concerns	Current liabilities ³ (mil. dol.)	Average liability (\$1,000)			Number	Rate per 10,000 concerns	Current liabilities ³ (mil. dol.)	Average liability (\$1,000)
1946-1950	2,493	5,652	21	213	45	1965	2,527	13,514	53	1,322	98
1951-1955	2,635	9,317	35	370	39	1966	2,520	13,061	52	1,386	106
1956-1960	2,674	14,177	53	708	50	1967	2,519	12,364	49	1,265	102
1961-1965	2,565	14,849	57	1,261	86	1968	2,481	9,636	39	941	98
1966-1970	2,481	10,993	44	1,324	121	1969	2,444	9,154	37	1,142	125
1971-1975	2,559	10,117	40	2,730	270	1970	2,442	10,748	44	1,888	176
1950	2,687	9,162	34	243	27	1971	2,466	10,326	42	1,917	186
1955	2,633	10,969	42	449	41	1972	2,490	9,566	38	2,000	209
1960	2,708	15,445	57	939	61	1973	2,567	9,345	36	2,299	246
1961	2,641	17,075	64	1,090	64	1974	2,591	9,915	38	3,053	303
1962	2,589	15,782	61	1,214	77	1975	2,679	11,432	43	4,380	383
1963	2,544	14,374	56	1,353	94	1976	2,782	9,628	35	3,011	313
1964	2,524	13,501	53	1,329	98						

¹ Data represent number of names listed in July issue of *Dun & Bradstreet Reference Book*. See table 937 for class of industries covered.

² Includes concerns discontinuing following assignment, voluntary or involuntary petition in bankruptcy, attachment, execution, foreclosure, etc.; voluntary withdrawals from business with known loss to creditors; also enterprises involved in court action, such as receivership and reorganization or arrangement which may or may not lead to discontinuance; and businesses making voluntary compromise with creditors out of court.

³ Liabilities exclude long-term publicly held obligations; offsetting assets are not taken into account.

No. 936. INDUSTRIAL AND COMMERCIAL FAILURES—NUMBER AND LIABILITIES, BY STATES: 1975 AND 1976

STATE	NUMBER ¹		CURRENT LIABILITIES ¹ (mil. dol.)		STATE	NUMBER ¹		CURRENT LIABILITIES ¹ (mil. dol.)	
	1975	1976	1975	1976		1975	1976	1975	1976
U.S.	211,432	9,628	4,380.2	3,011.3	S.A.—Con.				
N.E.	691	578	326.6	192.6	Va.	327	172	43.7	42.1
Maine	51	26	48.9	4.8	W. Va.	34	19	2.5	3.9
N.H.	80	46	20.5	19.1	N.C.	110	69	44.3	15.7
Vt.	12	18	1.5	1.8	S.C.	12	32	1.5	22.8
Mass.	369	361	188.7	104.2	Ga.	264	224	94.6	67.5
R.I.	37	4	2.4	3	Fla.	280	260	131.7	252.7
Conn.	142	123	64.5	62.2	E.S.C.	505	428	134.2	95.4
M.A.	2,780	2,208	2,099.2	800.0	Ky.	131	82	18.9	23.3
N.Y.	1,272	1,025	1,583.2	485.3	Tenn.	190	214	81.6	52.3
N.J.	768	660	243.2	174.5	Ala.	109	98	21.5	15.4
Pa.	740	523	272.8	140.2	Miss.	75	34	12.3	4.4
E.N.C.	1,951	1,810	355.1	327.8	W.S.C.	916	720	234.1	403.4
Ohio	313	424	37.4	64.1	Ark.	50	54	11.6	14.0
Ind.	200	131	108.3	17.5	La.	92	57	15.5	21.4
Ill.	636	507	94.0	127.3	Okla.	141	189	30.3	33.9
Mich.	688	575	101.6	90.1	Tex.	633	420	176.7	334.1
Wis.	114	173	13.8	28.7	Mt.	403	308	75.2	63.5
W.N.C.	533	566	212.5	183.9	Mont.	30	18	2.5	1.8
Minn.	224	247	47.8	51.2	Idaho	29	42	6.6	5.8
Iowa	73	67	11.2	14.0	Wyo.	-	-	-	-
Mo.	87	120	21.4	92.7	Colo.	83	60	13.3	19.3
N. Dak.	6	23	2	2.3	N. Mex.	34	17	10.1	3.3
S. Dak.	15	14	1.9	1.0	Ariz.	192	119	27.8	17.2
Nebr.	64	47	120.1	8.2	Utah	20	20	12.8	4.0
Kans.	64	48	9.8	14.4	Ne v.	15	32	2.0	12.0
S.A.	1,313	1,078	372.5	445.3	Pac.	2,340	1,932	570.6	499.5
Del.	23	6	6.8	2	Wash.	428	393	52.5	52.0
Md.	234	276	45.7	38.7	Oreg.	222	238	36.8	92.6
D.C.	29	20	1.7	1.6	Calif.	1,667	1,278	469.6	335.1
					Hawaii	23	22	11.7	19.7
					Alaska	(NA)	1	(NA)	1

- Represents zero. NA Not available.

¹ See headnote and footnotes 2 and 3, table 935. ² Excludes Alaska.

Source of tables 935 and 936: Dun & Bradstreet, Inc., New York, N.Y., *The Failure Record Through 1976 and Monthly Failure Report*.

Industrial and Commercial Failures—Bankruptcy Cases 571

NO. 937. INDUSTRIAL AND COMMERCIAL FAILURES—NUMBER AND LIABILITIES, BY INDUSTRY AND SIZE OF LIABILITY: 1970 TO 1976

[Excludes Hawaii prior to 1975, Alaska prior to 1976. See footnotes 2 and 3, table 935]

INDUSTRY AND SIZE OF LIABILITY	FAILURES						CURRENT LIABILITIES (mil. dol.)					
	1970	1972	1973	1974	1975	1976	1970	1972	1973	1974	1975	1976
Total	10,748	9,566	9,345	9,915	11,432	9,628	1,888	2,000	2,299	3,053	4,380	3,012
Mining and manufacturing.....	2,035	1,576	1,463	1,557	1,645	1,360	818	767	797	834	1,021	1,122
Under \$100,000.....	1,069	845	697	750	789	614	43	29	32	35	27	27
\$100,000 and over.....	966	731	766	807	856	746	775	732	769	802	986	1,094
Wholesale trade.....	984	965	940	964	1,089	1,028	179	250	274	275	407	414
Under \$100,000.....	650	608	565	572	611	506	27	24	24	28	23	23
\$100,000 and over.....	334	357	375	392	478	522	152	225	251	251	379	391
Retail trade.....	4,650	4,398	4,341	4,234	4,799	4,139	361	558	673	1,070	1,836	557
Under \$100,000.....	3,984	3,654	3,570	3,302	3,520	3,050	124	130	120	120	136	126
\$100,000 and over.....	666	744	771	932	1,279	1,089	236	428	553	950	1,700	430
Construction.....	1,687	1,375	1,419	1,840	2,262	1,770	232	194	309	527	641	429
Under \$100,000.....	1,229	979	912	1,152	1,433	1,097	42	37	34	46	58	47
\$100,000 and over.....	458	396	507	688	829	673	190	157	275	480	583	382
Commercial service.....	1,392	1,252	1,182	1,320	1,637	1,331	299	232	245	348	475	490
Under \$100,000.....	1,087	954	883	957	1,161	909	33	32	29	34	42	34
\$100,000 and over.....	305	298	299	363	486	422	265	199	216	314	433	456

Source: Dun & Bradstreet, Inc., New York, N.Y., *The Failure Record Through 1976* and *Monthly Failure Report*.

NO. 938. BANKRUPTCY CASES FILED AND PENDING: 1905 TO 1976

(In thousands. For years ending June 30. Covers all U.S. district courts. A bankruptcy case is a proceeding filed in a U.S. district court under the National Bankruptcy Act. "Filed" means the commencement of a proceeding through the presentation of a petition to the clerk of the court; "Pending" is a proceeding in which the administration has not been completed)

YEAR	Filed	Pending	YEAR	Filed	Pending	YEAR	Filed	Pending	YEAR	Filed	Pending
1905.....	17	28	1940.....	52	55	1963.....	155	148	1970.....	194	191
1910.....	18	25	1945.....	13	21	1964.....	172	157	1971.....	201	201
1915.....	28	44	1950.....	33	38	1965.....	180	162	1972.....	183	197
1920.....	14	30	1955.....	59	56	1966.....	192	169	1973.....	173	189
1925.....	46	60	1960.....	110	95	1967.....	208	185	1974.....	190	201
1930.....	63	61	1961.....	147	124	1968.....	198	184	1975.....	254	262
1935.....	69	65	1962.....	148	134	1969.....	185	179	1976.....	247	271

NO. 939. BANKRUPTCY CASES FILED, BY TYPE OF BANKRUPTCY AND OCCUPATION OF DEBTOR: 1960 TO 1976

[For years ending June 30. See headnote, table 938]

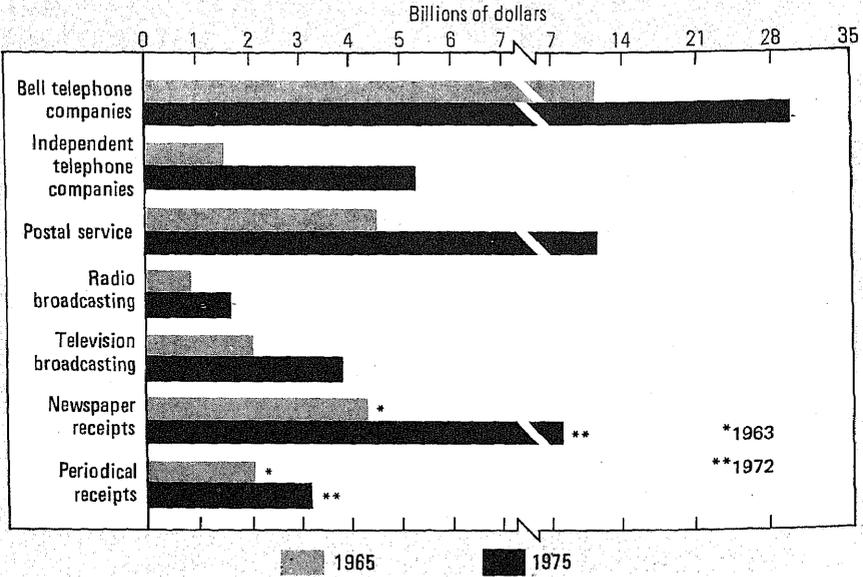
ITEM	1960	1965	1970	1971	1972	1973	1974	1975	1976
Total	110,034	180,323	194,399	201,352	182,869	173,197	189,513	254,484	246,549
Straight bankruptcies.....	95,710	161,137	162,451	168,364	153,934	145,914	157,967	209,330	209,067
Voluntary.....	94,414	149,820	161,366	167,149	152,840	144,929	156,958	208,064	207,926
Involuntary.....	1,296	1,317	1,085	1,215	1,094	985	1,009	1,266	1,141
Corporate reorganization.....	90	88	115	179	105	101	163	189	141
Arrangements.....	634	1,071	1,320	1,902	1,453	1,550	2,343	3,786	3,760
Wage earners' plans.....	13,599	28,027	30,510	30,904	27,373	25,632	29,023	41,178	33,579
Other.....	1	-	3	3	4	-	17	2	2
OCCUPATION OF DEBTOR¹									
Employees.....	89,639	148,965	156,343	156,077	139,437	131,122	141,877	184,078	166,394
Merchants.....	3,157	4,332	4,003	4,690	4,359	4,492	5,317	6,048	6,124
Manufacturers.....	624	688	731	922	688	649	710	756	681
Farmers.....	453	589	658	788	631	431	308	550	672
Members of professions.....	495	778	1,301	1,465	1,556	1,450	1,582	2,542	2,809
Other.....	15,666	23,628	30,264	36,106	35,081	34,056	35,699	59,224	68,703
In business.....	7,555	9,188	8,470	10,013	9,825	9,505	11,870	19,073	23,870
Not in business.....	8,111	14,440	21,794	26,093	25,256	24,551	26,829	40,151	44,833

- Represents zero. ¹ Beginning 1965, excludes corporate and involuntary straight cases.

Source of tables 938 and 939: Administrative Office of the United States Courts, *Tables of Bankruptcy Statistics*, annual.

Fig. 19-1. OPERATING REVENUES OF SELECTED MEDIA: 1965 AND 1975

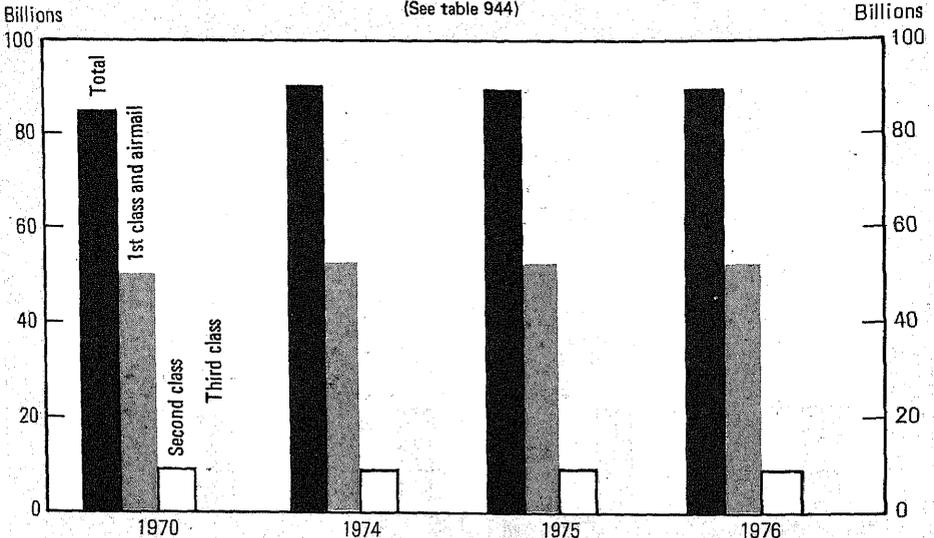
(See tables 941, 946, 948, 958, and 967)



Source: Chart prepared by U.S. Bureau of the Census. See tables for data sources.

Fig. 19-2. PIECES OF MAIL HANDLED BY U.S. POSTAL SERVICE: 1970 TO 1976

(See table 944)



Source: Chart prepared by U.S. Bureau of the Census. Data from U.S. Postal Service.

Section 19

Communications

This section presents statistics on usage, finances, and operations of the various communications media: Postal service, telephone, telegraph, radio, television, newspapers and periodicals, and books. Data on the postal service are included in the *Annual Report of the Postmaster General*. Statistics on revenues, volume of mail, and distribution of expenditures are presented in the U.S. Postal Service's annual *Revenue and Cost Analysis Report*. Principal sources of wire, radio, and television data are the Federal Communications Commission's *Annual Report*, its annual *Statistics of Communications Common Carriers*, and its annual releases of financial data reported by radio and television stations and networks. Statistics on number and circulation of newspapers and periodicals and on sales of books and pamphlets are issued by the Bureau of the Census in reports of the census of manufactures. Annual data on number and circulation of daily and Sunday newspapers appear in *International Yearbook Number*, issued by Editor and Publisher Co., Inc., New York. Monthly data on new books and new editions of books are presented by R. R. Bowker Company, New York, in *Publishers' Weekly*.

Postal Service.—The Postal Service provides mail processing and delivery services to individuals and businesses within the U.S. The Postal Reorganization Act of 1970 created the Postal Service, effective July 1971, as an independent establishment of the Federal Executive Branch.

"Revenue and cost analysis" is the term used by the Postal Service to describe its system of attributing revenues and costs to classes of mail and service. This system draws primarily upon probability sampling techniques to develop estimates of revenues, volumes, and weights, as well as costs by class of mail and special service. The costs attributed to classes of mail and special services are primarily incremental costs which vary in response to changes in volume; they account for roughly one-half of the total costs of the Postal Service.

Wire and other communication media.—Statistical reporting of interstate or foreign wire and radio communications has been concentrated in the Federal Communications Commission since its establishment in 1934. All except the smallest carriers (for example, telephone companies with less than one million dollars of annual operating revenues) file annual and monthly financial reports and the companies controlling any but the smallest file annual reports. Regulatory jurisdiction of the Commission applies to practically all domestic and overseas telegraph carriers and to the Communications Satellite Corporation, but not to a large number of telephone carriers which are engaged in intrastate or foreign service even if they rent the interstate facilities of another unaffiliated carrier. However, the gross operating revenues of the telephone carriers reporting annually to the Commission are estimated to cover over 90 percent of the revenues of all U.S. telephone companies. Financial and other reports filed by the broadcasting industry cover substantially all commercial AM and FM, VHF and UHF commercial and educational television, and educational FM units operating in the United States and its outlying areas. Total broadcasting revenues are defined as sales of time, talent, programs, and services of all networks and stations less commissions to agencies. Statistics covering the number of operating licenses issued is compiled from Federal Communications Commission records. Those covering the safety and special radio services represent the largest and most diverse group of licensees regulated by the Commission. These services are utilized by individuals, businesses, and State and local governments primarily to provide two-way radio communication for emergency and business purposes in the aviation, marine, land transportation, and other industries; police, fire, and other public safety programs; and amateur and personal operations.

Historical statistics.—Tabular headnotes provide cross-references, where applicable, to *Historical Statistics of the United States, Colonial Times to 1970*. See Appendix I.

NO. 940. UNITED STATES POSTAL SERVICE—SUMMARY: 1900 TO 1976

[For years ending June 30. Includes Puerto Rico and all outlying areas except Canal Zone. See text, p. 573. See also *Historical Statistics, Colonial Times to 1970*, series R 163-171]

YEAR	Number of post offices	FINANCES ¹			Revenue per capita ³	Money orders issued, total	Sales of postage stamps and other stamped paper	Postage paid under permit only	PIECES OF MAIL HANDLED, est.		
		Revenues	Expenditures ²	Deficit					Total ⁴	First class ⁵	Second class ⁶
		<i>Mil. dol.</i>	<i>Mil. dol.</i>	<i>Mil. dol.</i>	<i>Dol.</i>	<i>Mil. dol.</i>	<i>Mil. dol.</i>	<i>Mil. dol.</i>	<i>Bil.</i>	<i>Bil.</i>	<i>Bil.</i>
1900-----	76,688	102	108	5	1.34	256	94	(⁶)	7.1	(NA)	(NA)
1910-----	59,580	224	230	6	2.43	638	202	4	14.9	(NA)	(NA)
1920-----	52,641	437	454	17	4.11	1,356	380	13	(NA)	(NA)	(NA)
1930-----	49,063	705	804	98	5.75	1,767	575	74	27.9	16.9	5.0
1940-----	44,024	767	808	41	5.84	2,108	522	177	27.7	15.2	4.6
1950-----	41,464	1,677	2,223	545	11.14	5,198	862	678	45.1	24.5	6.3
1955-----	38,316	2,349	2,712	363	14.33	5,893	999	1,136	55.2	28.7	6.7
1960-----	35,238	3,277	3,874	597	18.27	5,058	1,245	1,699	63.7	33.2	7.5
1965-----	33,624	4,483	5,276	793	23.17	4,540	1,528	2,529	71.9	38.1	8.6
1970-----	32,002	7,702	7,867	165	31.05	4,709	1,936	3,883	84.3	48.6	9.4
1971-----	31,947	8,751	8,955	204	32.24	4,728	1,999	4,126	87.0	50.0	9.6
1972-----	31,686	9,347	9,522	175	37.89	4,731	2,371	4,861	87.2	48.9	9.5
1973-----	31,385	9,913	9,926	13	39.77	4,700	2,399	5,141	89.7	51.0	9.0
1974-----	31,000	10,857	11,295	438	42.85	5,194	2,504	5,623	90.1	51.6	8.8
1975-----	30,754	11,590	12,573	988	47.08	5,856	2,810	6,241	89.3	51.4	9.1
1976-----	30,521	12,747	13,923	1,176	52.21	6,219	3,155	6,883	89.8	57.1	9.0

NA Not available. ¹ After allowance for reimbursements, embossed envelope purchases, indemnity claims, and miscellaneous revenue and expenditure offsets. Through 1950 includes some payments and receipts applicable to services in prior years; beginning 1955, expenditures are shown in year in which obligation was incurred, and revenues in year which gave rise to the earnings, whether collected or accrued. In 1954, the Postal Service began receiving reimbursement for penalty and franked mail, and discontinued payment of subsidies to airlines. Revenues for 1960 include \$37.4 million reimbursement from the Treasury General Fund for statutory public services. These and other changes affect comparability of figures.

² Includes capital expenditures for plant and equipment and cost of materials and supplies, but no provision for depreciation. Also includes costs of certain services rendered to other agencies without reimbursement but excludes costs of certain services rendered to the Postal Service by other agencies. Beginning 1955, represents obligations incurred; beginning 1965, represents accrued expense including depreciation on fixed assets, reimbursable work for others, and expenses paid by certain other agencies without reimbursement by the Postal Service.

³ Operating revenue only; based on Bureau of the Census estimated total population as of Jan. 1, including Armed Forces abroad. ⁴ Includes other classes of mail not shown separately; see table 944. ⁵ For definition, see table 942. ⁶ Service not inaugurated. ⁷ Includes postal notes issued under act of Congress.

NO. 941. POSTAL SERVICE REVENUES, BY SOURCE: 1950 TO 1976

[In millions of dollars. For years ending June 30. Includes Puerto Rico and all outlying areas except Canal Zone. See text, p. 573]

REVENUE SOURCE	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976
Total ¹ -----	1,677	2,349	3,277	4,483	7,702	8,751	9,347	9,913	10,857	11,590	12,747
Operating postal revenue ² -----	1,668	2,332	3,270	4,433	6,347	6,665	7,884	8,339	9,008	10,015	11,199
Stamps, postal cards, etc.-----	862	999	1,245	1,528	1,936	1,999	2,371	2,399	2,604	2,819	3,155
Second-class postage paid in money (pound rates) ³ -----	40	64	86	131	192	191	214	224	259	284	319
Other postage paid in money under permit-----	678	1,136	1,699	2,529	3,883	4,126	4,861	5,141	5,623	6,241	6,883
Box rents-----	14	26	29	34	44	49	53	61	63	67	103
Miscellaneous-----	11	41	147	154	236	245	325	460	507	556	675
Money-order revenues-----	63	66	64	57	56	55	55	54	52	53	63
Postal Savings System ⁴ -----	8	18	7	3	(X)	(X)	(X)	(X)	(X)	(X)	(X)
Operating reimbursements ⁵ -----	-	-	-	47	-	-	-	-	-	-	-
Government appropriations-----	-	-	-	-	1,355	2,086	1,361	1,486	1,750	1,533	1,645
Investment income, net-----	-	-	-	-	-	-	102	89	98	37	7-97

- Represents zero. X Not applicable. ¹ Net revenue after refunds of postage. Beginning 1965, includes operating reimbursements. ² The U.S. Postal Service was established July 1, 1971. Revenues prior to that date are those of the Post Office Department. Revenues for 1970 and 1971 have been restated to be consistent with subsequent years. ³ Beginning 1955, includes controlled circulation publications. ⁴ Includes \$37.4 million appropriated to postal revenues for public services as provided by the Postal Policy Act of 1958.

⁵ Discontinued April 1966. ⁶ Reimbursement by U.S. Congress for providing certain mail service at free or reduced rates, and for "public service" costs incurred. ⁷ Interest expense on loans exceeded interest income received from investments.

Source of tables 940 and 941: U.S. Postal Service, *Annual Report of the Postmaster General*.

No. 942. POSTAL REVENUES AND COSTS, 1970 TO 1976, AND BY MAJOR CATEGORIES, 1976

[In millions of dollars, except as indicated. For years ending June 30]

MAIL AND SERVICE	REVENUES AND REIMBURSEMENTS		Per capita revenues ¹ (dol.)	ATTRIBUTABLE COSTS ²			
	Total	Percent of total		Total ³	Direct labor	Transportation	Overhead
1970.....	6,476.8	(X)	31.69	4,143.4	3,071.6	572.2	398.9
1971.....	6,795.7	(X)	32.88	4,492.0	3,326.7	587.5	456.8
1972.....	9,357.8	(X)	44.97	4,760.7	3,578.9	532.6	526.3
1973.....	9,840.1	(X)	46.93	4,903.1	3,900.9	465.1	411.7
1974.....	10,857.0	(X)	51.65	5,419.8	4,297.3	494.7	490.8
1975.....	11,589.6	(X)	55.14	7,011.5	4,715.2	731.6	1,564.8
1976, total.....	12,746.9	100.00	59.43	*7,011.5	*4,715.2	*731.6	*1,564.8
First-class mail ⁵	6,734.0	52.83	31.39	3,457.4		110.9	
Airmail ⁶	83.5	.66	.39	208.5		19.5	
Priority mail ⁷	410.9	3.22	1.92	164.7		74.3	
Second-class publishers' mail ⁸	266.9	2.09	1.24	455.6		48.1	
Outside the county:							
Regular rate publications.....	215.2	1.69	1.00	299.8		32.5	
Other.....	31.0	.24	.14	119.9		14.2	
Within the county and fees.....	20.7	.16	.10	35.9		1.4	
Controlled circulation publications ⁹	40.9	.32	.19	31.3		7.1	
Third-class mail ¹⁰	1,521.9	11.94	7.10	1,049.7		62.1	
Bulk rate.....	1,316.5	10.33	6.14	847.9		55.0	
Single piece rate and fees.....	205.4	1.61	.96	201.8	(NA)	7.1	(NA)
Fourth-class mail ¹¹	679.7	5.34	3.17	764.1		232.3	
Zone rate mail.....	510.8	4.01	2.39	557.6		179.9	
Parcels.....	479.5	3.76	2.24	537.6		177.4	
Catalogs and fees.....	31.3	.25	.15	20.0		2.4	
Special fourth-class rate.....	161.7	1.27	.75	186.6		49.5	
Library rate and fees.....	7.2	.06	.03	19.9		2.9	
Government mail ¹²	577.0	4.53	2.70	159.2		38.5	
International mail ¹³	447.3	3.51	2.09	270.5		137.7	
Special services.....	378.2	2.97	1.76	446.5		-	
Other ¹⁴	1,606.7	12.60	7.49	4.3		1.1	

- Represents zero. NA Not available. X Not applicable. ¹ Based on Bureau of the Census estimated population as of Jan. 1, including Armed Forces abroad. ² Costs which can be demonstrated to vary with changes in volume of a particular class or category of service or, even though fixed, to result from providing one specific class or category of service. ³ Includes other direct and specific fixed costs not shown separately. ⁴ 1975 data. ⁵ Items mailed at 1st-class rates and weighing 12 ounces or less. Includes items wholly or partially in writing or typewriting, cards or bills and statements of account, items closed against postal inspection, etc. ⁶ Letters and cards weighing 8 ounces or less mailed at airmail rates. ⁷ Items otherwise qualified as 1st-class or airmail that exceed 12 ounces and 8 ounces, respectively. ⁸ Includes mail paid at other than bulk rates. Publishers' mail includes printed publications, periodicals issued and mailed at a known post office to paid subscribers. These include regular rate newspapers and magazines, and classroom and nonprofit rate publications. Outside-the-county publications are those mailed to destinations outside the county of publication. ⁹ Publications of at least 24 pages and containing at least 25 percent nonadvertising content issued quarterly or more frequently for mainly free distribution. Includes certain trade publications and "shopper" guides. ¹⁰ Items less than 16 ounces in weight not mailed at either 1st- or 2d-class rates. ¹¹ Items not mailed at 1st-, 2d-, or 3d-class rates, except government and international mail. May include parcel post, catalogs weighing 16 ounces or more, books, films, and records. ¹² Penalty and franked mail. ¹³ Mail from U.S. to foreign countries paid at international mail rates. ¹⁴ For revenues and reimbursements, unassignable revenues; for attributable costs, consists of free mail for blind and handicapped and nonpostal services for other agencies.

Source: U.S. Postal Service, *Revenue and Cost Analysis*, annual.

No. 943. POSTAL RATES FOR FIRST-CLASS MAIL, POSTAL CARDS, AND DOMESTIC AIRMAIL: 1949 TO 1977

[See also *Historical Statistics, Colonial Times to 1970*, series R 188-191]

DATE OF RATE CHANGE	Letters (per oz.)	Postal cards	DATE OF RATE CHANGE	Domestic airmail
1952 (Jan. 1).....	3¢	2¢	1949 (Jan. 1).....	6¢ per oz., 4¢ ea. for airmail postal & postcards
1958 (Aug. 1).....	4¢	3¢	1958 (Aug. 1).....	7¢ per oz., 5¢ ea. for airmail postal & postcards
1963 (Jan. 7).....	5¢	4¢	1963 (Jan. 7).....	8¢ per oz., 6¢ ea. for airmail postal & postcards
1968 (Jan. 7).....	6¢	5¢		
1971 (May 16).....	8¢	6¢	1968 (Jan. 7).....	10¢ per oz., 8¢ ea. for airmail postal & postcards
1974 (Mar. 2).....	10¢	8¢	1971 (May 16).....	11¢ per oz., 9¢ ea. for airmail postal & postcards
1975 (Sept. 14).....	10¢	7¢	1974 (Mar. 2)-1975 (Oct. 11) ¹	13¢ per oz., 11¢ ea. for airmail postal & postcards
1975 (Dec. 31).....	13¢	9¢		
In effect, Oct. 1, 1977.....	13¢	9¢		

¹ As of Oct. 11, 1975, domestic airmail was merged with first class.
Source: U.S. Postal Service, "United States Domestic Postage Rates: Recent History."

NO. 944. VOLUME OF MAIL, BY CLASSES: 1970 TO 1976

[For years ending June 30. Includes Puerto Rico and all outlying areas except Canal Zone. For definition of classes of mail, see footnotes, table 942. See also *Historical Statistics, Colonial Times to 1970*, series R 172-186]

CLASS OF MAIL	PIECES OF MAIL (millions)					WEIGHT OF MAIL (mil. lb.)				
	1970	1973	1974	1975	1976	1970	1973	1974	1975	1976
Total	84,882	89,683	90,098	89,266	89,768	13,281	12,820	12,646	12,025	11,750
Domestic.....	83,986	88,764	89,182	88,334	88,835	13,055	12,589	12,412	11,824	11,538
Per capita ¹	411	423	424	415	414	(X)	(X)	(X)	(X)	(X)
1st class and airmail.....	50,174	52,291	52,929	52,460	52,459	1,636	1,744	1,784	1,746	1,804
Per capita ¹	246	249	252	247	245	(X)	(X)	(X)	(X)	(X)
Priority mail ²	185	209	222	207	192	(X)	423	452	440	435
2d class.....	9,352	9,034	8,838	9,085	8,899	3,417	3,052	2,933	2,792	2,749
Per capita ¹	46	43	42	43	41	(X)	(X)	(X)	(X)	(X)
3d class.....	19,974	22,689	22,537	21,867	22,514	2,032	2,385	2,365	2,283	2,334
Per capita ¹	98	108	107	103	105	(X)	(X)	(X)	(X)	(X)
4th class.....	977	893	859	801	759	4,786	4,165	3,983	3,754	3,323
Controlled circulation publications.....	562	582	620	628	612	224	229	242	232	228
Penalty.....	2,544	2,756	2,844	2,928	2,959	540	539	608	527	617
Franked and free for blind.....	218	310	333	336	440	49	52	45	50	49
International ³	896	919	916	932	933	226	231	234	201	212

¹ X Not applicable. ¹ Total pieces; not shown in millions. Based on estimated total population as of Jan. 1, including Armed Forces abroad. ² Effective January 1968. ³ Includes publishers, 2d class.

NO. 945. POST OFFICE EMPLOYEES, BY TYPE: 1950 TO 1976

[In thousands. As of June 30. Includes Puerto Rico, and all outlying areas except Canal Zone. See *Historical Statistics, Colonial Times to 1970*, series R 187, for total employees]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976
Total employees	501	512	563	596	741	706	701	710	702	679
Regular.....	364	387	409	447	549	571	549	565	559	543
Postmasters.....	145	142	35	33	30	31	29	30	30	29
Post office supr. and tech. personnel.....	169	175	27	30	37	38	34	37	37	37
Post office clerks and mail handlers ²			172	188	243	250	239	243	239	226
City carriers and vehicle drivers.....	90	91	110	133	165	175	172	171	167	160
Rural carriers.....	33	32	31	31	31	31	30	31	31	31
Other.....	27	26	34	32	42	45	45	51	55	59
Substitute (part-time).....	137	145	154	148	193	136	152	146	143	136
Pieces of mail per employee, average.....	90	108	113	121	115	123	128	127	127	132

¹ Includes assistant postmasters: 3,540 in 1950, and 3,917 in 1955. ² Includes mobile unit employees.

Source of tables 944 and 945: U.S. Postal Service, *Annual Report of the Postmaster General*.

NO. 946. BELL TELEPHONE COMPANIES—SUMMARY: 1950 TO 1976

[As of December 31 or calendar year, as applicable. Comprises American Telephone and Telegraph Company and its principal telephone subsidiaries, plus Southern New England and Cincinnati and Suburban Bell Telephone Companies. See also *Historical Statistics, Colonial Times to 1970*, series R 17-30]

ITEM	1950	1960	1965	1970	1972	1973	1974	1975	1976
Central offices, number ¹	8,656	11,212	13,425	15,135	16,056	16,483	16,872	17,232	17,512
Miles of wire ².....mil.	144	308	423	602	695	752	800	832	871
Miles of coaxial tube.....1,000..	63	97	169	287	307	326	331	333	338
Miles of telephone grade carrier channel ³.....mil.	14	76	167	414	520	569	608	645	672
Miles of microwave radio relay, broadband 1-way channel, 1,000..	8	298	728	1,181	1,295	1,343	1,356	1,389	1,370
Book value of plant (cost), mil. dol.	10,375	24,722	36,229	56,171	68,446	75,479	82,683	89,194	95,798
Depreciation and amortization reserves.....mil. dol.	2,905	5,402	7,794	12,610	14,812	15,791	16,582	17,578	18,673
Operating revenues ⁴.....mil. dol.	3,342	8,111	11,320	17,369	21,388	24,072	26,761	29,591	33,517
Local exchange.....mil. dol.	1,997	4,665	6,114	8,685	10,630	11,712	13,131	14,368	15,977
Toll.....mil. dol.	1,208	3,058	4,706	8,042	9,983	11,524	12,929	14,224	16,399
Operating expenses ⁵.....mil. dol.	2,653	5,686	7,857	12,867	16,032	17,805	19,814	22,155	24,802
Net income.....mil. dol.	370	1,279	1,837	2,308	2,658	3,125	3,306	3,292	3,999
Dividends declared ⁶.....mil. dol.	263	770	1,144	1,508	1,719	1,861	2,131	2,158	2,562
Employees, number.....1,000..	535	595	627	793	797	818	812	789	778
Wages and salaries.....mil. dol.	1,742	3,283	4,169	6,641	8,344	9,282	10,209	11,121	12,163

¹ Beginning 1965, data on revised basis, not fully comparable with prior years. ² Excludes drop and block wire. ³ Message circuits added to existing wire mileage, but not requiring additional wire. Also includes microwave radio. ⁴ Includes miscellaneous and uncollectable, not shown separately. ⁵ Includes operating taxes other than Federal income tax. ⁶ Includes dividends on all minority holdings of preferred and common stocks, but excludes intercompany dividends.

Source: American Telephone and Telegraph Company, New York, N. Y., compiled from reports of Bell System and Southern New England and Cincinnati and Suburban Bell Companies.

NO. 947. TELEPHONE AND TELEGRAPH SYSTEMS: 1950 TO 1975

[Covers principal carriers filing annual reports with Federal Communications Commission. See *Historical Statistics, Colonial Times to 1970*, series R 46-70 and R 75-88, for data on telegraph systems]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975
Domestic telephone: ¹									
Carriers.....number.....	71	53	52	54	56	61	64	66	62
Telephones ².....millions.....	39	50	66	82	105	116	121	126	130
Miles of wire.....millions.....	147	205	316	436	628	728	788	838	872
Book cost of plant.....bil. dol.....	10.7	16.2	25.7	38.0	59.9	73.3	81.0	88.6	95.5
Depreciation and amortization reserves.....bil. dol.....	3.0	4.1	5.6	8.1	13.2	15.6	16.8	17.7	18.8
Ratio to book cost.....percent.....	27.8	25.3	21.7	21.4	22.1	21.2	20.7	20.0	19.7
Capital stock.....bil. dol.....	3.2	6.0	8.4	10.0	10.8	11.3	11.5	11.7	12.4
Operating revenues.....bil. dol.....	3.4	5.6	8.4	11.8	18.2	22.4	25.5	28.3	31.3
Operating expenses ³.....bil. dol.....	2.5	3.7	5.0	7.1	11.7	14.6	16.2	18.0	20.2
Operating ratio ⁴.....percent.....	71.5	66.6	60.1	60.2	63.9	65.1	63.6	63.7	64.5
Net operating income ⁵.....bil. dol.....	.5	.8	1.4	2.1	3.1	3.9	4.6	5.2	5.6
Net income.....bil. dol.....	.4	.7	1.3	1.9	2.3	2.7	3.2	3.5	3.6
Employees.....1,000.....	565	649	627	655	839	849	874	865	840
Compensation of employees.....bil. dol.....	1.8	2.7	3.4	4.3	7.0	8.8	9.8	10.7	11.7
Overseas telephone:									
Number of overseas calls.....mil.....	.7	1.2	3.3	7.5	23.4	36.7	44.7	53.7	62.2
Revenue from overseas calls.....mil. dol.....	9	16	42	101	252	364	368	496	562
Telephone ocean cable systems.....number.....	1	1	5	11	13	13	13	14	14
Communications satellites.....number.....	-	-	-	1	4	4	5	5	5
Overseas television transmission ⁶.....hours.....	-	-	-	33	445	724	801	692	789
Domestic telegraph:									
Carriers.....number.....	1	1	1	1	1	1	1	1	1
Revenue messages transmitted.....millions.....	179	154	124	94	70	40	37	42	42
Message revenues ⁷.....mil. dol.....	152	189	190	192	234	181	184	192	197
Total operating revenues.....mil. dol.....	178	229	262	305	402	432	455	484	505
Operating revenue deductions.....mil. dol.....	167	206	247	282	368	377	401	414	435
Operating income ⁸.....mil. dol.....	9	13	11	24	34	55	54	69	70
Teletypewriter (TWX), messages.....millions.....	15	23	33	47	46	47	57	52	54
Overseas telegraph: ⁹									
Carriers.....number.....	11	10	9	6	6	6	6	6	6
Revenue messages transmitted.....millions.....	23	26	28	29	32	29	30	29	26
Message revenues ⁷.....mil. dol.....	42	50	71	78	124	141	172	213	226
Total operating revenues.....mil. dol.....	50	68	87	107	194	228	263	299	316
Operating revenue deductions.....mil. dol.....	45	58	77	87	156	180	206	224	245
Operating income ⁷.....mil. dol.....	4	3	6	14	26	36	44	49	71

- Represents zero. ¹ Includes Puerto Rico and, beginning 1965, Virgin Islands. Excludes intercompany duplications. Gross operating revenues of carriers reporting in 1972 estimated at 90 percent of all carriers. ² Includes company, service, and private. ³ Excludes taxes. ⁴ Ratio of operating expenses, excluding taxes, to operating revenues. ⁵ After tax deductions. ⁶ Includes overseas telegraph carriers. Service began July 1965. ⁷ Includes telex service; for domestic telegraph, excludes TWX. ⁸ After Federal income taxes. ⁹ Beginning 1965, excludes South American and most Caribbean operations of All America Cables and Radio, Inc.

Source: U.S. Federal Communications Commission, *Statistics of Communications Common Carriers*, annual, and unpublished data.

NO. 948. INDEPENDENT TELEPHONE COMPANIES—SUMMARY: 1950 TO 1975

[As of Dec. 31 or calendar year, as applicable. See also *Historical Statistics, Colonial Times to 1970*, series R 31-45]

ITEM	1950	1955	1960	1965	1970	1972	1973	1974	1975
All companies:									
Number.....	5,541	4,713	3,299	2,421	1,841	1,758	1,695	1,641	1,618
Telephones.....1,000.....	6,338	8,461	11,428	15,027	20,312	22,796	24,351	25,825	26,823
Total telephone plant.....mil. dol.....	1,096	2,043	4,019	6,826	12,390	15,555	17,419	19,600	21,200
Operating revenues.....mil. dol.....	317	590	1,020	1,670	2,953	3,859	4,317	4,920	5,500
Reporting companies: ¹									
Number.....	379	406	550	669	684	674	701	698	731
Percent, of all independent companies telephones represented.....	77.2	79.8	85.0	89.6	92.9	93.7	93.5	94.3	95.3
Telephones.....1,000.....	4,922	6,750	9,718	13,648	19,182	21,720	23,167	24,355	25,548
Telephone plant in service.....mil. dol.....	878	1,656	3,396	6,056	11,175	14,275	15,912	17,676	19,520
Depreciation reserves.....mil. dol.....	203	326	600	1,168	2,203	2,781	3,166	3,599	4,120
Operating revenues.....mil. dol.....	270	503	1,040	1,530	2,791	3,661	4,188	4,714	5,294
Operating expenses (excl. Federal income tax).....mil. dol.....	211	354	630	1,040	1,953	2,540	2,881	3,254	3,639
Net income.....mil. dol.....	29	67	117	225	356	495	573	641	711
Employees.....1,000.....	63	72	85	101	142	152	157	157	152
Wages and salaries.....mil. dol.....	147	224	359	537	1,001	1,294	1,438	1,608	1,737

¹ Includes only those companies submitting operating information to the U.S. Independent Telephone Assn.

Source: United States Independent Telephone Association, Washington, D.C., *Statistics of the Independent Telephone Industry*, annual. (Copyright.)

No. 949. TELEPHONES, CALLS, AND RATES: 1950 TO 1976

(See also *Historical Statistics, Colonial Times to 1970*, series R 1-16)

ITEM	1950	1960	1965	1969	1970	1972	1973	1974	1975	1976
Telephones, Dec. 31.....mil.	43	74	94	115	120	132	138	144	149	155
Total per 1,000 population.....	281	408	478	564	584	628	655	677	695	718
Bell companies ¹.....mil.	37	63	79	96	100	109	114	118	122	127
Independent companies.....mil.	6	11	15	19	20	23	24	26	27	28
Business.....mil.	² 13	21	26	32	33	36	37	39	39	41
Residence.....mil.	² 30	54	68	83	87	96	101	105	110	114
Households with telephone ³ percent.....	² 62	79	85	90	91	92	94	94	95	95
Average daily conversations:										
Bell companies ^{1 4}.....mil.	145	225	287	359	379	421	444	470	481	498
Local.....mil.	139	215	273	338	356	394	414	438	448	462
Long distance.....mil.	6	10	14	21	23	27	30	32	33	36
Independent companies ⁴.....mil.	31	60	80	102	107	125	132	143	146	146
Local.....mil.	30	58	77	98	103	119	125	136	137	137
Long distance.....mil.	1	2	3	4	4	6	7	7	9	9
Toll rates in effect, Dec. 31, from New York City to:⁵										
Philadelphia.....dol.	.45	.50	.50	.50	.50	.55	.60	.60	.90	.99
Chicago.....dol.	1.55	1.45	1.40	1.30	1.05	1.05	1.15	1.15	1.20	1.18
Denver.....dol.	2.20	1.80	1.70	1.55	1.25	1.25	1.35	1.35	1.30	1.24
San Francisco.....dol.	2.50	2.25	2.00	1.70	1.35	1.35	1.45	1.45	1.36	1.30

¹ See headnote, table 946. ² Excludes Alaska and Hawaii. ³ See footnote 2, table 952.⁴ Includes messages originating in independent company areas routed in part over Bell facilities.⁵ Source: Federal Communications Commission. Rates for dialing station to station, daytime, 3-minute call. Source: Except as noted, American Telephone and Telegraph Company, New York, N.Y.

No. 950. COMMUNICATION RATES BETWEEN SELECTED CITIES: 1946 TO 1977

(See also *Historical Statistics, Colonial Times to 1970*, series R 71-74 and R 80-92)

EFFECTIVE DATE	BETWEEN NEW YORK CITY AND—				EFFECTIVE DATE	BETWEEN NEW YORK CITY AND—			
	Phila- del- phia	Chi- cago	Den- ver	San Fran- cisco		Lon- don	Cairo	Tokyo	Buenos Aires
TELEGRAPH RATES¹					CABLE AND RADIO TELEGRAPH RATES³				
1960, Oct. 17.....	1.10	1.45	1.90	1.90	1950, July 1.....	.19	.30	.30	.27
1966, Jan. 1.....	1.27	1.70	2.23	2.23	1958, Aug. 1.....	.21	.34	.34	.31
1968, Nov. 1.....	2.25	2.25	2.25	2.25	1966, Apr. 12.....	.23	.34	.34	.31
1970, Mar. 1.....	2.75	2.75	2.75	2.75	In effect Jan. 1, 1977...	.23	.34	.34	.31
1971, July 4.....	3.75	3.75	3.75	3.75					
1974, Dec. 2-Jan. 1, 1977..	4.75	4.75	4.75	4.75	TELEPHONE RATES⁴				
TWX RATES²					1946.....	12.00	12.00	12.00	12.00
1960, Feb. 7.....	.45	1.15	1.65	1.75	1970, Mar. 1.....	9.60	12.00	12.00	12.00
1966, Sept. 1.....	.25	.45	.55	.60	In effect Jan. 1, 1977...	9.60	12.00	12.00	12.00
1970, Feb. 1-Jan. 1, 1977..	.25	.50	.65	.70					

¹ Beginning Sept. 1, 1951, minimum charge for 15 text words or less; prior to that, for 10 text words or less.² Prior to September 1966, rates for 3 minutes or less, 2-way; thereafter, for each minute or fraction thereof.³ For plain language telegraph-word including address and signature. ⁴ For person-to-person, 3-minute call.

Source: U.S. Federal Communications Commission, releases.

No. 951. REA AND RURAL TELEPHONE BANK PROGRAM—SUMMARY: 1950 TO 1976

ITEM	1950	1960	1965	1970	1973	1974	1975	1976
Loans and guarantees approved, Dec. 31:¹								
Borrowers.....	61	727	845	862	892	905	921	939
REA amount.....mil. dol.	19	737	1,200	1,816	2,217	2,357	2,576	2,851
Guaranteed amount.....mil. dol.	—	—	—	—	—	33	237	394
Rural telephone bank amount.....mil. dol.	—	—	—	—	319	474	618	768
Route miles of line in service, Dec. 31.....1,000..	21	378	515	575	627	645	701	750
Subscribers, Dec. 31.....1,000..	75	1,467	2,066	2,506	2,935	3,100	3,561	3,907
Telephones in service.....1,000..	(NA)	1,280	2,046	2,989	3,714	4,084	4,355	² 4,796
Total operating revenues.....mil. dol.	(NA)	94	187	363	555	660	753	² 899
Total telephone plant.....mil. dol.	(NA)	635	1,168	2,085	2,964	3,422	3,850	² 4,374
Employees.....1,000..	(NA)	9.7	11.6	15.4	17.4	19.6	20.0	² 21.2

— Represents zero. ¹ Cumulative net loans (recisions deducted). ² Preliminary.Source: U.S. Rural Electrification Administration, *Annual Statistical Report—Rural Telephone Borrowers*.

Telephones in Use

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NO. 952. TELEPHONES IN USE, BY STATES: 1965 TO 1975

[As of December 31]

STATE	1965			1970			1974				Telephones, by type of service	
	Telephones		Percent of households with tele-phones ²	Telephones		Percent of households with tele-phones ²	Telephones			Percent of households with tele-phones ²	Residence (1,000)	Busi-ness (1,000)
	Total (1,000)	Per-cent owned by Bell com-pa-nies ¹		Total (1,000)	Per-cent owned by Bell com-pa-nies ¹		Total (1,000)	Per-cent owned by Bell com-pa-nies ¹	Per 100 popu-lation			
U.S. ...	93,659	84	85	120,155	83	92	149,008	82	70	94	109,510	39,498
Ala.	1,197	86	70	1,563	84	80	2,068	84	57	85	1,579	489
Alaska ..	64	-	(NA)	85	-	(NA)	189	-	53	81	108	81
Ark.	645	98	70	956	97	82	1,444	96	64	91	1,039	405
Calif.	620	74	63	859	73	77	1,193	72	56	84	901	292
.....	10,596	80	89	13,306	79	94	16,454	79	77	96	11,804	4,650
.....	1,023	98	86	1,374	98	93	1,830	98	71	96	1,283	547
.....	1,622	100	94	2,061	99	100	2,368	99	76	101	1,754	614
.....	281	100	89	380	100	97	458	100	79	101	336	122
.....	757	100	91	873	100	100	996	100	140	97	495	501
.....	2,796	68	79	4,142	68	88	6,191	65	73	92	4,551	1,640
.....	1,688	86	73	2,413	86	83	3,325	86	67	89	2,471	854
.....	323	-	(NA)	424	-	(NA)	568	-	65	101	358	210
.....	277	79	79	358	80	87	528	81	63	91	388	140
.....	5,823	84	89	7,110	83	94	8,598	83	77	98	6,331	2,267
.....	2,263	65	88	2,905	66	90	3,558	65	67	91	2,728	830
.....	1,328	69	95	1,625	70	95	1,989	69	69	96	1,523	466
.....	1,040	83	87	1,301	83	93	1,635	84	72	95	1,234	401
.....	1,078	74	70	1,435	73	80	1,912	72	56	87	1,447	465
.....	1,353	95	76	1,781	95	87	2,293	94	60	92	1,731	562
.....	389	91	82	490	90	93	657	89	62	98	506	151
.....	1,805	100	90	2,482	99	93	3,013	99	73	98	2,243	770
.....	2,871	100	95	3,523	99	98	4,086	100	70	97	2,899	1,187
.....	4,065	90	93	5,135	89	95	6,252	88	68	98	4,761	1,491
.....	1,730	81	94	2,248	82	97	2,736	80	69	99	2,045	691
.....	620	96	56	891	95	71	1,257	95	53	81	971	286
.....	2,178	83	85	2,753	83	91	3,296	81	69	94	2,436	860
.....	297	84	80	357	84	89	478	83	64	91	347	131
.....	711	58	88	884	58	96	1,129	59	73	99	851	273
.....	224	41	69	333	35	84	520	32	86	94	340	180
.....	296	95	88	425	95	99	563	95	68	103	430	133
.....	3,750	98	91	4,786	98	99	5,693	98	78	103	4,234	1,459
.....	394	86	68	494	87	80	674	87	58	85	466	208
.....	10,492	93	91	12,416	92	97	13,077	91	72	95	9,214	3,863
.....	1,625	54	69	2,385	52	82	3,241	53	59	89	2,469	772
.....	263	69	86	321	70	94	471	74	74	97	346	125
.....	5,005	78	90	6,201	77	94	7,277	76	67	95	5,486	1,791
.....	1,122	89	79	1,469	88	88	1,905	87	70	92	1,397	508
.....	920	79	87	1,190	78	89	1,555	75	67	91	1,132	423
.....	6,033	84	90	7,476	83	95	8,723	82	74	97	6,619	2,104
.....	432	100	90	531	100	96	637	100	69	100	478	159
.....	796	75	68	1,168	74	80	1,679	73	59	87	1,259	420
.....	273	81	82	335	81	91	430	82	63	92	329	101
.....	1,436	85	75	1,947	84	84	2,624	84	62	90	1,985	639
.....	4,556	84	75	6,329	84	86	8,447	82	68	92	6,098	2,349
.....	468	96	89	596	96	93	829	97	68	97	607	222
.....	169	88	89	235	87	97	299	87	63	101	215	84
.....	1,788	80	77	2,476	80	86	3,218	78	64	94	2,368	850
.....	1,494	79	89	1,996	77	91	2,462	76	69	94	1,808	654
.....	626	88	74	763	87	82	927	87	51	86	705	222
.....	1,890	74	91	2,370	72	95	2,980	71	64	97	2,210	770
.....	162	94	79	196	94	89	273	94	72	93	193	80

- Represents zero. NA Not available.

¹ Includes 456,600 service telephones (non-company telephones for which switching service is provided) in 1965, 463,900 in 1970, and 388,601 in 1975.

² Households with service are sum of residence main, apartment house private branch exchange and residence service main telephones, and other residence private branch exchange systems. There tends to be a slight overstatement of the proportion of households with telephone service.

Source: U.S. Federal Communications Commission, *Statistics of Communications Common Carriers*, annual.

NO. 953. BROADCAST AND NONBROADCAST STATIONS AUTHORIZED AND OPERATORS LICENSED, BY CLASS: 1970 TO 1976

[As of June 30. Includes Puerto Rico and Virgin Islands. See also *Historical Statistics, Colonial Times to 1970*, series R 140-148]

CLASS	1970	1975	1976	CLASS	1970	1975	1976
Safety and special radio services¹.....1,000..	1,844.6	2,602.4	6,763.5	Broadcast services²	25,481	32,172	34,700
Amateur and disaster.....1,000..	283.5	276.8	292.8	Commercial AM.....	4,370	4,488	4,525
Citizens.....1,000..	887.0	1,530.8	5,613.6	Commercial TV.....	823	759	764
Aviation.....1,000..	151.0	184.4	188.5	Educational TV.....	212	256	263
Aircraft.....1,000..	123.5	154.7	158.2	TV translator.....	2,591	3,389	3,545
Aeronautical and fixed				Auxiliary TV.....	2,408	3,032	3,631
1,000.....	6.0	7.4	7.5	Experimental TV.....	7	3	3
Civil air patrol.....1,000..	19.3	19.6	20.0	UHF signal booster.....	(NA)	9	9
Other.....1,000..	2.1	2.7	2.9	Aural, studio-transmitter-			
Industrial.....1,000..	222.5	244.6	277.1	link, intercity relay.....	412	1,008	1,176
Power.....1,000..	18.7	17.5	18.6	Commercial FM.....	2,260	2,847	2,947
Business.....1,000..	137.6	155.2	179.2	Educational FM.....	462	850	913
Petroleum.....1,000..	12.5	11.8	13.1	International.....	3	4	4
Forest products.....1,000..	4.1	4.3	4.5	Remote pickup.....	11,579	14,959	16,283
Special industrial.....1,000..	43.1	40.7	45.4	Instructional TV fixed.....	159	187	182
Other.....1,000..	6.5	15.1	16.2	Other.....	195	381	470
Land transportation.....1,000..	22.3	22.6	23.0	Common carrier services.	15,770	27,304	36,317
Railroad.....1,000..	8.1	8.9	8.7	Point to point microwave.....	6,340	8,133	8,509
Taxicab.....1,000..	5.5	3.7	3.7	Multipoint distribution serv..	(NA)	69	95
Interurban property.....1,000..	3.3	2.2	2.2	Local TV transmission.....	69	64	67
Other.....1,000..	5.4	7.9	8.4	Rural radio.....	754	1,218	1,260
Marine.....1,000..	206.3	250.7	262.6	Developmental.....	172	(NA)	(NA)
Ship.....1,000..	201.7	243.6	254.7	Public land mobile ¹	8,392	17,783	26,345
Alaskan.....1,000..	2.3	2.1	2.1	International control-fixed.....	7	25	25
Coastal and other.....1,000..	2.3	5.0	5.8	Satellite earth stations.....	8	7	9
Public safety.....1,000..	72.2	92.6	105.9	Satellites in orbit.....	4	5	5
Police.....1,000..	23.0	28.8	33.4	Other.....	24	(NA)	6
Fire.....1,000..	13.0	14.0	15.7	Experimental services	1,049	1,349	1,110
Forestry conservation				Cable television relay			
1,000.....	5.8	6.2	6.6	service.....	317	377	343
Highway maintenance				Radio operators.....1,000..	3,688	4,222	4,386
1,000.....	7.6	7.7	8.4	Commercial.....1,000..	3,423	3,965	4,095
Special emergency.....1,000..	9.4	12.4	14.3	Amateur.....1,000..	265	257	290
Other.....1,000..	13.5	23.5	27.5				

NA Not available.

¹ Each license, construction permit, or combination construction permit and license is counted as one station; therefore, a station might include a transmitter and many mobile units.

² Stations licensed or holding construction permits.

³ Estimated.

Source: U.S. Federal Communications Commission, *Annual Report*.

NO. 954. COMMERCIAL BROADCAST STATIONS, NUMBER AND REVENUES: 1950 TO 1975

[Covers only reporting stations. As of Dec. 31. Includes Puerto Rico and Virgin Islands. Total broadcast revenues are total time sales of all networks and stations, less commissions to agencies and plus incidental revenues (e.g., sale of talent and program material). See also *Historical Statistics, Colonial Times to 1970*, series R 111-112 and R 128-129]

STATION	1950	1955	1960	1965	1969	1970	1971	1972	1973	1974	1975
Stations	2,336	3,179	4,218	4,867	5,488	5,584	5,708	5,826	5,936	6,136	6,228
Revenues.....mil. dol..	550	1,198	1,866	2,757	3,882	3,945	4,008	4,586	4,967	5,384	5,819
AM and AM-FM:											
Stations	2,143	2,704	3,470	3,941	4,194	4,209	4,252	4,271	4,267	4,367	4,355
Revenues ¹.....mil. dol..	443	452	592	777	1,040	1,077	1,176	1,292	1,348	1,410	1,480
FM affiliates of AM stations:											
Stations	(NA)	(NA)	(NA)	(NA)	179	225	241	275	361	397	477
Revenues.....mil. dol..	(NA)	(NA)	(NA)	(NA)	12	19	26	38	58	65	102
FM independents:											
Stations	86	38	218	338	442	464	527	590	616	678	703
Revenues.....mil. dol..	1	1	6	16	33	41	55	77	96	128	143
TV:											
Stations	107	437	530	588	673	686	688	690	692	694	693
Revenues ².....mil. dol..	106	745	1,269	1,965	2,796	2,808	2,750	3,179	3,465	3,782	4,094

NA Not available.

¹ Prior to 1960, includes 4 national networks and 3 regional networks; 1960-1965, includes 4 national networks; thereafter, includes 7 national networks (CBS, MBS, NBC, and ABC's 3 AM and 1 FM).

² Includes 4 networks through Sept. 15, 1955; 3 thereafter.

Source: U.S. Federal Communications Commission, *AM-FM Broadcast Financial Data*, annual, and *TV Broadcast Financial Data*, annual.

NO. 955. COMMERCIAL BROADCAST STATIONS—STATES AND OTHER AREAS: 1970 AND 1976

[Represents licenses issued as of Jan. 1]

STATE	1970			1976			STATE	1970			1976		
	AM	FM	TV	AM	FM	TV		AM	FM	TV	AM	FM	TV
Total.....	4,256	2,044	683	4,458	2,848	723	Mont.....	41	7	10	45	19	12
U.S.....	4,209	2,021	672	4,399	2,809	712	Neb.....	47	15	14	48	30	14
Ala.....	134	51	15	137	70	17	Nev.....	20	8	7	22	12	8
Alaska.....	18	3	7	20	7	7	N.H.....	25	10	3	26	16	2
Ariz.....	59	15	11	60	28	11	N.J.....	32	26	4	38	34	5
Ark.....	84	35	7	87	51	8	N.Mex.....	55	19	7	67	28	9
Calif.....	231	145	50	229	185	57	N.Y.....	157	91	27	162	118	30
Colo.....	67	26	11	69	44	11	N.C.....	195	71	19	209	86	18
Conn.....	38	20	5	38	26	5	N.Dak.....	27	11	12	26	13	11
Del.....	10	4	--	10	8	--	Ohio.....	116	108	29	124	132	24
D.C.....	6	6	6	6	9	5	Okla.....	64	35	9	67	49	10
Fla.....	191	88	24	201	113	30	Oreg.....	80	17	12	78	29	12
Ga.....	265	57	15	178	83	18	Pa.....	169	109	23	177	122	25
Hawaii.....	19	4	10	26	8	10	R.I.....	15	7	2	15	7	2
Idaho.....	42	7	7	43	17	8	S.C.....	101	37	11	107	53	12
Ill.....	121	92	24	125	128	22	S.Dak.....	29	6	10	33	16	10
Ind.....	83	72	17	86	98	18	Tenn.....	139	61	16	155	69	18
Iowa.....	73	35	12	74	64	14	Tex.....	285	122	55	288	170	54
Kans.....	57	24	12	59	39	12	Utah.....	31	10	3	35	16	3
Ky.....	102	60	10	117	83	11	Vt.....	18	4	2	19	11	2
La.....	90	41	15	94	55	16	Va.....	123	53	12	136	72	15
Maine.....	36	13	7	36	27	7	Wash.....	96	39	13	95	44	14
Md.....	52	31	5	52	33	6	W.Va.....	58	23	9	62	31	9
Mass.....	62	38	11	66	43	11	Wis.....	97	74	17	98	92	17
Mich.....	124	76	20	128	107	24	Wyo.....	29	1	3	29	9	3
Minn.....	83	39	12	91	68	13	Other areas.....	47	23	11	59	39	11
Miss.....	99	34	9	107	66	10	P.Rico.....	43	21	8	52	35	8
Miss.....	104	41	21	109	71	22	Guam.....	1	1	1	3	2	1
Mo.....	104	41	21	109	71	22	Virgin IS.....	3	1	2	4	2	2

- Represents zero.

Source: U.S. Federal Communications Commission, *AM-FM Broadcast Financial Data*, annual; *TV Broadcast Financial Data*, annual; and unpublished data.

NO. 956. EDUCATIONAL TELEVISION STATIONS: 1961 TO 1976

(General programing is directed at the general community. Instructional programing is directed at students in the classroom or otherwise in the general context of formal education)

ITEM	1961	1964	1966	1968	1970	1972	1974	1976
Stations.....	56	88	115	¹ 153	¹ 190	220	² 238	² 253
Total weekly broadcast hours.....	2,186	3,715	5,688	8,534	12,217	15,587	18,321	22,096
General programs.....	1,431	1,992	3,248	4,671	7,697	7,904	10,868	14,329
Percent of total hours.....	65.5	54.0	57.5	54.7	63.0	50.7	59.3	64.8
Instructional programs.....	755	1,723	2,440	3,863	4,520	7,683	⁴ 7,453	⁵ 7,766
Percent of total hours.....	34.5	46.0	42.5	45.3	37.0	49.3	40.7	35.1
Average weekly broadcast hours per station.....	39.0	42.3	49.5	56.1	65.3	70.9	80.7	90.9
General programing.....	25.6	22.6	28.2	30.7	41.1	36.0	47.9	59.0
Instructional programing.....	13.8	19.6	21.2	25.4	24.2	34.9	⁶ 32.8	⁶ 31.9

¹ 152 stations reported in 1968 and 187 in 1970; details include data for reporting stations only. ² Includes data for 227 stations only, representing 147 primary broadcasters; does not include secondary broadcasters. ³ Includes data for 243 stations only, representing 151 primary broadcasters. ⁴ Includes 3,766 hours of CTW (children's TV workshop) broadcasting, representing 20.6 percent of total weekly broadcasting hours. ⁵ Includes all material from CTW. ⁶ Includes 16.6 hours of CTW broadcasting.

Source: Through 1970, National Instructional Television Center, Bloomington, Ind., *One Week of Educational Television, 1970* (copyright). Beginning 1972, Corporation for Public Broadcasting, Washington, D.C., *One Week of Public TV, April 1972; PTV Program Content: 1974* (advance edition); and unpublished data.

NO. 957. CABLE TELEVISION—SYSTEMS AND SUBSCRIBERS: 1952 TO 1976

YEAR (As of Jan. 1)	Systems	Households subscribing (1,000)	YEAR (As of Jan. 1)	Systems	Households subscribing (1,000)	Subscriber size-group ¹	Systems, 1976 (Sept. 1)
1952.....	70	14	1970.....	2,490	4,500	20,000 and over.....	58
1955.....	400	150	1971.....	2,639	5,300	10,000-19,999.....	181
1960.....	640	650	1972.....	2,841	6,000	5,000-9,999.....	345
1965.....	1,325	1,275	1973.....	2,991	7,300	3,500-4,999.....	243
1966.....	1,570	1,575	1974.....	3,158	8,700	1,000-3,499.....	1,164
1967.....	1,770	2,100	1975.....	3,366	9,800	250-999.....	1,216
1968.....	2,000	2,800	1976.....	3,651	10,800	Less than 249.....	472
1969.....	2,260	3,600					

¹ Excludes 29 systems not available by size-group.

Source: Television Digest, Inc., Washington, D.C., *Television Factbook*, annual. (Copyright.)

No. 958. TELEVISION BROADCAST INDUSTRY FINANCES: 1960 TO 1975

[Includes Puerto Rico and Virgin Islands. See also headnote, table 954, and *Historical Statistics, Colonial Times to 1970*, series R 123-139]

ITEM	1960	1965	1970	1971	1972	1973	1974	1975
Number of networks, Dec. 31.....	3	3	3	3	3	3	3	3
Stations reporting, Dec. 31.....	530	588	686	688	690	692	694	693
VHF.....	454	488	506	506	508	511	514	513
UHF.....	76	100	180	182	182	181	180	180
Broadcast revenues, gross.....mil. dol..	1,504	2,328	3,337	3,264	3,770	4,107	4,479	4,860
Sales to advertisers.....mil. dol..	1,456	2,266	3,243	3,179	3,675	4,002	4,354	4,722
Network sales.....mil. dol..	747	1,142	1,551	1,490	1,688	1,840	2,005	2,157
National non-network sales.....mil. dol..	469	796	1,103	1,023	1,177	1,230	1,336	1,449
Local sales.....mil. dol..	240	328	589	666	810	932	1,012	1,116
Nonadvertising revenues.....mil. dol..	48	62	94	85	95	105	125	138
Broadcast revenues, net.....mil. dol..	1,269	1,965	2,808	2,750	3,179	3,465	3,776	4,094
3 networks.....mil. dol..	641	1,024	1,457	1,379	1,598	1,758	1,921	2,069
Other stations.....mil. dol..	628	941	1,351	1,371	1,581	1,707	1,855	2,025
Broadcast expenses of networks and stations.....mil. dol..	1,025	1,517	2,354	2,361	2,627	2,811	3,039	3,314
3 networks.....mil. dol..	546	862	1,290	1,284	1,385	1,470	1,590	1,755
Other stations.....mil. dol..	479	655	1,065	1,127	1,242	1,341	1,449	1,559
Broadcast income before Federal income tax.....mil. dol..	244	448	454	389	552	653	737	780
3 networks ¹.....mil. dol..	95	162	167	145	213	288	331	314
Other stations.....mil. dol..	149	286	286	244	339	365	406	466

¹ Includes owned and operated stations.

Source: U.S. Federal Communications Commission, *TV Broadcast Financial Data*, annual.

No. 959. RADIO BROADCAST INDUSTRY FINANCES: 1960 TO 1975

[Includes Puerto Rico and Virgin Islands. Minus sign (-) denotes loss. See also headnote, table 954, and *Historical Statistics, Colonial Times to 1970*, series R 106-122]

ITEM	1960	1965	1970	1971	1972	1973	1974	1975
Number of networks, Dec. 31.....	4	4	7	7	7	7	7	7
Number of stations reporting, Dec. 31.....	3,688	4,279	4,898	5,020	5,136	5,244	5,436	5,535
AM and A-M-FM.....	3,470	3,941	4,209	4,252	4,271	4,267	4,361	4,365
FM independents.....	218	338	464	527	590	616	678	703
FM affiliates of A-M stations ¹	(NA)	(NA)	225	241	275	361	397	477
Broadcast revenues, gross.....mil. dol..	665	880	1,272	1,403	1,564	1,664	1,774	1,911
Revenues from sales to advertisers.....mil. dol..	654	868	1,257	1,387	1,547	1,647	1,756	1,890
Network sales.....mil. dol..	45	54	49	55	65	59	60	73
National non-network sales.....mil. dol..	208	261	355	378	384	382	387	416
Local sales.....mil. dol..	401	553	853	954	1,098	1,205	1,309	1,401
Nonadvertising revenues.....mil. dol..	11	12	15	16	17	17	18	21
Broadcast revenues, net.....mil. dol..	598	798	1,137	1,258	1,407	1,502	1,603	1,725
AM and A-M-FM.....mil. dol..	592	777	1,077	1,176	1,292	1,348	1,410	1,480
FM independents.....mil. dol..	6	16	41	55	77	96	128	143
FM affiliates of A-M stations.....mil. dol..	(NA)	(NA)	19	26	38	58	65	102
Networks ².....mil. dol..	63	74	88	100	112	112	116	134
Other stations.....mil. dol..	535	719	1,049	1,158	1,295	1,398	1,487	1,591
Broadcast expenses of networks and stations.....mil. dol..	552	715	1,044	1,155	1,273	1,392	1,519	1,638
AM and A-M-FM.....mil. dol..	544	696	973	1,059	1,145	1,227	1,315	1,384
FM independents.....mil. dol..	8	19	47	64	86	106	141	152
FM affiliates of A-M stations.....mil. dol..	(NA)	(NA)	24	32	41	58	63	102
Networks ².....mil. dol..	66	71	90	97	103	109	116	128
Other stations.....mil. dol..	486	644	955	1,059	1,170	1,283	1,403	1,510
Broadcast income before Federal income tax.....mil. dol..	46	78	93	103	134	110	84	91
AM and A-M-FM.....mil. dol..	48	81	104	118	147	121	95	96
FM independents.....mil. dol..	-2	-3	-6	-9	-9	-11	-13	-9
FM affiliates of A-M stations.....mil. dol..	(NA)	(NA)	-5	-6	-4	-1	2	5
Networks ².....mil. dol..	-3	3	-1	3	9	3	-	6
Other stations.....mil. dol..	49	75	94	99	125	107	84	85

- Represents zero. NA Not available. ¹ Prior to 1970, stations filed combined reports with A-M stations; thereafter, separate reports filed when possible. ² Includes owned and operated stations.

Source: U.S. Federal Communications Commission, *A-M-FM Broadcast Financial Data*, annual.

No. 960. PERCENT OF HOUSEHOLDS WITH TELEVISION SETS: 1955 TO 1974

[For definition of standard metropolitan statistical areas (SMSA's), see Appendix II. 1955 excludes Alaska and Hawaii. For 1955-1965, 212 SMSA's as defined at time of 1960 Census of Population; for 1970 and 1974, 243 SMSA's as defined Feb. 23, 1971. See *Historical Statistics, Colonial Times to 1970*, series R 105, for number of households with TV]

ITEM	1955,	1960,	1965,	1970,	1974,	PERCENT OF HOUSEHOLDS WITH—					
	June	May	Aug.	Apr.	Fall	1955,	1960,	1965,	1970,	1974,	
						June	May	Aug.	Apr.	Fall	
All households.....	100	100	100	100	100	No set.....	33	12	8	4	3
Percent with TV.....	67	88	92	96	97	1 set.....	65	77	73	67	51
						2 sets or more.....	2	11	20	29	45
Inside SMSA's.....	78	91	94	96	97	Color.....	(NA)	(NA)	7	(NA)	43
Outside SMSA's.....	50	82	89	94	96	Black and white.....	(NA)	(NA)	93	(NA)	52

NA Not available.

Source: U.S. Bureau of the Census, *Current Housing Reports*, series H-121; 1970 Census of Housing, *Detailed Housing Characteristics*, HC(1)-B1; and "Selected Data From the 1973 and 1974 Surveys of Purchases and Ownership."

No. 961. BROADCAST STATIONS SOLD—NUMBER AND VALUE OF TRANSACTIONS: 1965 TO 1976

[Includes a very small number of stations exchanged or donated to nonprofit organizations. Value figures represent total considerations reported for all transactions, except minority interest transfers in which control of the station did not change hands. All sales approved by Federal Communications Commission]

ITEM	1965	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Number of stations sold:											
Radio.....	389	316	316	343	268	270	239	352	369	363	413
Combined radio-TV.....	15	9	9	5	3	1	-	2	5	-	1
TV.....	32	30	20	32	19	27	37	25	24	22	32
Value of sale transactions.....mil. dol..	135.1	172.1	152.5	231.7	174.8	393.5	271.3	230.3	307.8	269.5	290.9
Radio.....mil. dol..	55.9	59.7	71.3	108.9	86.3	125.5	114.4	160.9	169.0	131.1	180.7
Combined radio-TV.....mil. dol..	49.8	32.1	47.6	35.0	1.0	8	-	2.8	19.8	-	1.8
TV.....mil. dol..	29.4	80.3	33.6	87.8	87.5	267.3	156.9	66.6	119.0	128.4	108.5

- Represents zero.

Source: Broadcasting Publications, Inc., Washington, D.C., *Broadcasting Magazine*. (Copyright.)

No. 962. COMMERCIAL BROADCAST STATIONS, BY AFFILIATION WITH NEWSPAPERS WITHIN SAME COMMUNITY AND BY EXTENT OF OWNERSHIP: 1967 TO 1971

[As of November. Excludes noncommercial educational and religion stations. "Community" is the political jurisdiction (usually incorporated) to which a station is licensed. "In same community" indicates same city for radio stations, same television market (not necessarily the same city) for television stations]

TYPE OF STATION	1967			1970			1971		
	Radio only	TV only	Both radio and TV	Radio only	TV only	Both radio and TV	Radio only	TV only	Both radio and TV
Number of communities involved.....	155	16	77	142	16	73	132	15	74
Stations not affiliated with newspapers ¹	884	254	(X)	915	289	(X)	890	294	(X)
Stations affiliated with newspapers ¹	245	20	215	239	24	195	219	21	204
By extent of ownership:									
100% ownership, total.....	141	11	146	128	10	129	115	12	136
Only station in same community.....	53	1	5	42	1	7	34	1	7
Percent of total.....	37.6	9.1	3.4	32.8	10.0	5.4	29.6	8.3	5.1
Nonaffiliated stations in same community.....	646	190	(X)	640	200	(X)	628	211	(X)
Majority ² ownership, total.....	89	4	55	87	6	48	79	4	47
Only station in same community.....	51	1	8	49	-	7	43	-	5
Percent of total.....	57.3	25.0	14.5	56.3	-	14.6	54.4	-	10.6
Nonaffiliated stations in same community.....	193	51	(X)	173	58	(X)	170	53	(X)
Minority ³ ownership, total.....	15	5	14	24	8	18	25	5	21
Only station in same community.....	7	1	3	8	1	4	9	1	4
Percent of total.....	46.7	20.0	21.4	33.3	12.5	22.2	36.0	20.0	19.0
Nonaffiliated stations in same community.....	45	13	(X)	102	31	(X)	92	30	(X)
Communities with only one daily newspaper with ownership interest in:									
The only commercial radio station.....	76	(X)	(X)	65	(X)	(X)	53	(X)	(X)
Within metropolitan areas.....	8	(X)	(X)	9	(X)	(X)	9	(X)	(X)
Outside metropolitan areas.....	68	(X)	(X)	56	(X)	(X)	44	(X)	(X)
The only commercial TV station.....	(X)	29	(X)	(X)	12	(X)	(X)	10	(X)

- Represents zero. X Not applicable. ¹ Within same community.

² 50 through 99 percent owned. ³ Less than 50 percent owned.

Source: U.S. Federal Communications Commission, *Statistical Material on Newspaper-Broadcast Joint Interests as of November 1967*, and *Annual Report*. Data compiled by U.S. Bureau of the Census.

NO. 963. RADIO AND TELEVISION STATIONS OWNED BY NEWSPAPERS AND/OR MAGAZINES: 1961 TO 1976

DATE	AM radio	FM radio	TV	DATE	AM radio	FM radio	TV
1961, Sept. 1.....	412	147	161	1971, Feb. 1.....	402	248	191
1965, Oct. 31.....	391	170	174	1971, Dec. 1.....	318	209	178
1966, Nov. 10.....	387	177	172	1972, Dec. 1.....	325	171	178
1967, Nov. 1.....	383	181	177	1973, Dec. 1.....	304	211	179
1968, Dec. 4.....	381	191	183	1974, Dec. 1.....	321	236	183
1969, Dec. 1.....	394	245	189	1975, Dec. 1.....	320	238	197
				1976, Dec. 1.....	322	238	209

Source: Broadcasting Publications Inc., Washington, D.C., *Broadcasting Yearbook*. (Copyright.)

NO. 964. NEWSPAPERS AND PERIODICALS: 1950 TO 1977

[Prior to 1960, excludes Alaska and Hawaii. Data refer to year of compilation of the Directory cited as the source, i.e., generally to year preceding year shown. See also *Historical Statistics, Colonial Times to 1970*, series R 232-243]

FREQUENCY OF PUBLICATION	1950	1955	1960	1965	1970	1971	1973	1974	1975	1976	1977
Newspapers.....	12,115	11,415	11,315	11,383	11,383	11,350	11,324	11,296	11,400	11,298	11,089
Semiweekly.....	337	324	324	357	423	412	459	523	506	511	550
Weekly.....	9,794	9,126	8,979	8,989	8,903	8,888	8,804	8,711	8,824	8,735	8,506
Daily.....	1,894	1,860	1,854	1,843	1,838	1,818	1,792	1,806	1,819	1,813	1,811
Other.....	90	105	158	194	219	232	269	256	251	239	225
Periodicals.....	6,960	7,648	8,422	8,990	9,573	9,657	9,630	9,755	9,657	9,872	9,732
Weekly.....	1,443	1,602	1,680	1,716	1,856	1,873	2,022	2,027	1,918	1,915	1,882
Semi-monthly ¹	416	503	527	550	589	544	606	529	637	557	548
Monthly.....	3,694	3,782	4,113	4,195	4,314	4,277	4,107	4,123	4,087	4,144	4,019
Bimonthly.....	436	608	743	876	957	1,005	925	942	1,009	1,058	1,045
Quarterly.....	604	674	895	1,030	1,108	1,124	1,148	1,164	1,093	1,161	1,149
Other.....	367	479	564	623	749	834	922	970	1,013	1,264	1,130

¹ Includes fortnightly (every two weeks).

Source: Ayer Press, Philadelphia, Pa., *Ayer Directory of Publications*, annual. (Copyright.)

NO. 965. DAILY AND SUNDAY NEWSPAPERS—NUMBER AND CIRCULATION, BY CIRCULATION SIZE-GROUP: 1970 TO 1976

[As of Sept. 30 of year shown. Total number of newspapers and circulation figures have been adjusted to account for double listings]

CIRCULATION SIZE-GROUP	NUMBER OF NEWSPAPERS				CIRCULATION (1,000)				PERCENT OF ALL NEWSPAPERS ²			
	Daily				Daily				Number		Circulation	
	Total	Morn-ing	Even-ing	Sund-ay	Total	Morn-ing	Even-ing	Sund-ay	Total daily	Sund-ay	Total daily	Sund-ay
1970, total.....	1,748	334	1,429	586	62,108	25,934	36,174	49,217	100.0	100.0	100.0	100.0
500,001 and over.....	11	7	4	17	8,780	6,370	2,410	15,081	.6	2.9	14.1	30.6
250,001-500,000.....	27	11	16	34	9,532	4,167	5,365	11,652	1.5	5.8	15.3	23.7
100,001-250,000.....	92	45	47	62	14,687	7,612	7,075	9,799	5.3	10.6	23.6	19.9
50,001-100,000.....	127	57	70	82	8,394	3,736	4,658	5,661	7.3	14.0	13.5	11.5
25,001-50,000.....	243	69	179	104	8,597	2,398	6,199	3,791	13.9	17.7	13.8	7.7
10,001-25,000.....	489	76	422	146	7,850	1,247	6,603	2,385	28.0	24.9	12.6	4.8
Less than 10,000.....	759	69	691	141	4,325	403	3,922	847	43.4	24.1	7.0	1.7
1975, total.....	1,756	339	1,436	639	60,655	25,490	35,165	51,096	100.0	100.0	100.0	100.0
500,001 and over.....	10	7	3	15	7,716	6,018	1,698	13,548	.6	2.3	12.7	26.5
250,001-500,000.....	26	14	13	34	9,135	4,795	4,340	11,674	1.5	5.3	15.1	22.8
100,001-250,000.....	81	40	41	65	12,832	6,476	6,356	10,575	4.6	10.2	21.2	20.7
50,001-100,000.....	135	62	75	89	9,065	3,999	5,066	6,212	7.7	13.9	14.9	12.2
25,001-50,000.....	259	70	196	132	9,197	2,460	6,737	5,465	14.7	20.7	15.2	10.7
10,001-25,000.....	511	77	441	167	8,345	1,330	7,015	2,759	29.1	26.1	13.8	5.4
Less than 10,000.....	734	69	667	137	4,366	412	3,954	863	41.8	21.4	7.2	1.7
1976, total.....	1,762	346	1,435	650	60,976	25,857	35,118	51,565	100.0	100.0	100.0	100.0
500,001 and over.....	9	7	2	17	7,185	6,016	1,168	15,110	.5	2.6	11.8	29.3
250,001-500,000.....	27	14	14	31	9,877	4,886	4,991	10,698	1.6	4.8	16.2	20.8
100,001-250,000.....	83	40	43	67	12,958	6,495	6,463	10,861	4.7	10.3	21.3	21.1
50,001-100,000.....	131	65	68	87	8,848	4,276	4,572	6,046	7.4	13.4	14.5	11.7
25,001-50,000.....	266	71	202	138	9,446	2,481	6,965	5,073	15.1	21.2	15.5	9.8
10,001-25,000.....	518	76	449	175	8,337	1,266	7,071	2,943	29.4	26.9	13.7	5.7
Less than 10,000.....	728	73	657	135	4,325	437	3,888	834	41.3	20.8	7.0	1.6

¹ All-day newspapers are included in circulation size-groups; adjustments for them are made in the total. Totals shown represent effects of downward adjustments to correct for duplications in the detail.

² Percents for circulation were calculated on gross totals.

Source: Editor & Publisher Co., Inc., *Editor & Publisher International Yearbook*, annual. (Copyright.)

No. 966. DAILY AND SUNDAY NEWSPAPERS—NUMBER AND CIRCULATION, 1950 TO 1976, AND BY STATES, 1976

[Prior to 1960, excludes Alaska and Hawaii. For English language newspapers only. See also *Historical Statistics: Colonial Times to 1970*, series R 224-231]

YEAR AND STATE	DAILY NEWSPAPERS						SUNDAY NEWSPAPERS	
	Total		Morning		Evening		Number	Net paid circulation (1,000)
	Number ¹	Net paid circulation (1,000)	Number	Net paid circulation (1,000)	Number	Net paid circulation (1,000)		
1950.....As of Oct. 1.....	1,772	53,829	322	21,266	1,450	32,563	549	46,582
1955.....As of Oct. 1.....	1,760	56,147	316	22,183	1,454	33,964	541	46,445
1960.....As of Oct. 1.....	1,763	58,882	312	24,029	1,459	34,853	563	47,699
1965.....As of Oct. 1.....	1,751	60,368	320	24,107	1,444	36,251	562	48,600
1970.....As of Feb. 1, 1971.....	1,748	62,108	334	25,934	1,429	36,174	586	49,217
1971.....As of Feb. 1, 1972.....	1,749	62,231	339	26,116	1,425	36,115	590	48,665
1972.....As of Feb. 1, 1973.....	1,761	62,510	337	26,078	1,441	36,432	603	49,339
1973.....As of Feb. 1, 1974.....	1,774	63,147	343	26,524	1,451	36,623	634	51,717
1974.....As of Feb. 1, 1975.....	1,768	61,877	340	26,145	1,449	35,732	641	51,679
1975.....As of Feb. 1, 1976.....	1,756	60,655	339	25,490	1,436	35,165	639	51,096
1976, total, Feb. 1, 1977.....	1,762	60,977	346	25,858	1,435	35,119	650	51,565
Alabama.....	24	740	7	208	17	529	17	678
Alaska.....	7	90	1	15	6	75	1	45
Arizona.....	16	540	2	275	14	265	4	451
Arkansas.....	34	466	5	177	30	290	15	456
California.....	122	5,735	22	2,643	101	3,092	43	5,020
Colorado.....	27	804	3	295	24	508	9	810
Connecticut.....	27	850	6	319	21	531	7	615
Delaware.....	3	160	1	48	2	112	2	99
District of Columbia.....	2	915	1	530	1	385	2	1,115
Florida.....	52	2,364	17	1,500	36	870	33	2,334
Georgia.....	37	1,028	7	432	31	596	15	1,004
Hawaii.....	5	231	1	75	4	156	2	206
Idaho.....	15	201	4	90	11	111	6	185
Illinois.....	89	3,530	21	1,697	71	1,834	22	2,686
Indiana.....	80	1,655	9	453	71	1,202	18	1,158
Iowa.....	41	895	4	310	38	576	9	754
Kansas.....	50	645	5	223	46	423	14	434
Kentucky.....	27	769	5	317	22	452	12	595
Louisiana.....	27	839	5	406	22	434	14	765
Maine.....	9	272	5	207	4	66	1	110
Maryland.....	13	706	5	231	8	475	4	661
Massachusetts.....	46	2,023	5	899	41	1,124	8	1,462
Michigan.....	53	2,453	1	621	52	1,832	14	2,225
Minnesota.....	31	1,106	6	406	26	701	10	1,064
Mississippi.....	24	388	5	125	19	264	10	289
Missouri.....	54	1,699	9	733	45	967	16	1,149
Montana.....	11	191	4	146	7	45	7	186
Nebraska.....	19	491	3	172	16	319	4	367
Nevada.....	9	180	3	73	9	107	4	160
New Hampshire.....	9	180	1	32	9	148	2	69
New Jersey.....	28	1,736	7	642	22	1,094	13	1,342
New Mexico.....	20	246	1	75	19	171	12	220
New York.....	78	6,983	20	4,148	59	2,835	25	6,351
North Carolina.....	51	1,305	10	593	41	712	22	1,047
North Dakota.....	10	144	2	22	9	122	3	58
Ohio.....	96	3,354	8	855	88	2,499	23	2,380
Oklahoma.....	55	859	10	430	45	429	45	868
Oregon.....	22	645	3	273	19	372	5	558
Pennsylvania.....	105	3,811	31	1,237	79	2,574	12	2,972
Rhode Island.....	7	310	1	67	6	243	2	219
South Carolina.....	19	566	8	381	11	185	7	451
South Dakota.....	13	177	1	3	12	174	4	124
Tennessee.....	34	1,111	9	471	25	641	14	975
Texas.....	115	3,301	25	1,549	90	1,752	87	3,472
Utah.....	5	258	1	73	4	186	4	257
Vermont.....	8	117	2	67	6	50	2	32
Virginia.....	35	1,062	10	480	24	582	14	806
Washington.....	23	1,048	5	305	19	743	13	1,027
West Virginia.....	29	470	9	202	20	268	9	380
Wisconsin.....	36	1,235	4	280	32	975	6	841
Wyoming.....	10	90	6	62	4	29	3	59

¹ Beginning 1955, figures are adjusted to account for all-day papers listed in morning and evening figures (circulations divided between them). ² Number of newspapers as of Jan. 1.

³ Adjusted downward to allow for duplication of papers in individual State tabulations (circulations divided between States).

No. 967. NEWSPAPERS AND PERIODICALS—CIRCULATION AND RECEIPTS: 1963, 1967, AND 1972

[Receipts in millions of dollars. See also *Historical Statistics, Colonial Times to 1970*, series R 244-257]

TYPE OF PUBLICATION	1963			1967			1972		
	Circulation per issue ¹ (1,000)	Receipts		Circulation per issue ¹ (1,000)	Receipts		Circulation per issue ¹ (1,000)	Receipts	
		Total	Adver-tising		Total	Adver-tising		Total	Adver-tising
Newspapers, total²	(NA)	³ 4,255	³ 0,024	(NA)	⁵ 5,550	³ 8,896	(NA)	⁷ 7,908	⁵ 6,600
Daily and Sunday.....	(NA)	3,792	2,728	(NA)	4,962	3,653	(NA)	6,961	5,214
Morning ⁵		2,602	124		3,442	206		3,770	280
Evening ⁵		13,971	681		14,446	909		12,917	1,021
Morning and Sunday.....		31,663	891		31,623	1,301		31,726	1,806
Evening and Sunday.....		32,424	940		31,552	1,055		30,357	1,641
Morning and evening ⁵		717	37		651	41		765	63
Morning, evening, and Sunday.....		34,002	1,119		36,942	1,443		37,406	2,138
Weekly and other.....	(NA)	379	296	(NA)	321	243	(NA)	493	386
Weekly ⁷	(S)	288	219	(S)	248	182	(S)	377	291
Periodicals, total	(NA)	² 2,036	¹ 2,242	(NA)	² 2,668	¹ 5,547	(NA)	³ 3,197	¹ 1,693
Farm.....		14,305	54		12,115	57		13,103	76
General.....		12,087	43		10,219	41		11,092	49
Specialized.....		2,218	11		1,896	16		2,011	27
Specialized.....	(NA)	³ 535	³ 413	(NA)	³ 675	³ 525	(NA)	³ 910	³ 648
Industrial, engineering, technical.....		12,113	247		12,952	353		17,609	359
Merchandising.....	(S)	127	106	(NA)	145	121	(S)	297	215
Profess'nal, instit'nal, service.....	(S)	121	65		8,303	159		11,924	250
General.....	(NA)	1,167	711	(NA)	1,473	880	(NA)	1,729	896
Comics.....		27,594	11		15,178	9	(Z)	(S)	(D)
Women and home services.....		72,573	316		74,541	362		488	295
General entertainment.....		102,501	659		136,567	847		855	374
General news.....		7,375	141		9,652	204		19,605	323
Business news.....	(S)	28	15		1,409	40		1,489	33
Not specified.....	(NA)	12	5	(NA)	11	6	(NA)	(D)	(D)
Other.....		141,943	230		⁸ 127,215	284		282	88

D Withheld to avoid disclosing figures for individual companies. NA Not available. S Does not meet publication standards. Z Less than \$500,000. ¹ Includes paid, free bulk, etc. "Issue" defined as the sum of all editions published on a given day. Figures are totals of average circulation per issue. ² Includes foreign language newspapers. ³ Includes types not specified. ⁴ Includes amounts not specified by kind. ⁵ No Sunday editions. ⁶ Establishments with less than 10 employees were not required to file reports specifying source of receipts. Thus a substantial portion of "Not specified" is included in "Weekly and other." ⁷ Includes those issued on Sunday only. ⁸ Not shown because not reported by many small newspapers. ⁹ Partially estimated.

Source: U.S. Bureau of the Census, *Census of Manufactures: 1963*, vol. II, part 1; *Census of Manufactures: 1967*, vol. II, part 2; and *Census of Manufactures: 1972*, Industry series, Bulletin No. MC 72(2)-27A.

No. 968. NEWSPAPERS, PERIODICALS, BOOK PUBLISHING AND PRINTING—NUMBER OF COMPANIES, AND SHARE OF TOTAL SHIPMENTS BY LARGEST FIRMS: 1947 TO 1972

[Prior to 1967, excludes Alaska and Hawaii. Largest companies are ranked by value added by manufacture]

ITEM	NEWSPAPERS					PERIODICALS				
	1947	1958	1963	1967	1972	1947	1958	1963	1967	1972
Number of companies.....	1,000									
Value of shipments.....	bil. dol.									
Percent accounted for by:										
4 largest companies.....	21	17	15	16	17	34	31	28	24	26
8 largest companies.....	26	24	22	25	28	43	41	42	37	38
20 largest companies.....	36	35	36	40	43	58	55	59	56	54
50 largest companies.....	(NA)	51	52	56	60	(NA)	69	73	72	69
	BOOK PUBLISHING					BOOK PRINTING				
Number of companies.....	1,000									
Value of shipments.....	bil. dol.									
Percent accounted for by:										
4 largest companies.....	18	16	20	20	19	(NA)	24	19	21	24
8 largest companies.....	20	29	33	32	31	(NA)	34	30	30	36
20 largest companies.....	48	48	56	57	56	(NA)	51	48	48	53
50 largest companies.....	(NA)	69	76	77	77	(NA)	68	66	64	68

NA Not available.

Source: U.S. Bureau of the Census, *Census of Manufactures, 1972*, special report, *Concentration Ratios in Manufacturing*, MC72-SR-2.

NO. 969. NEWSPRINT CONSUMPTION AND NEWSPAPER PAGES: 1960 TO 1976

[As reported, which consists primarily of 30-lb. weight basis. See also *Historical Statistics, Colonial Times to 1970*, series R 218-223]

ITEM	1960	1965	1970	1972	1973	1974	1975	1976
Newsprint consumption,								
total ¹.....mil. sh. tons	7.4	8.6	9.7	10.5	10.7	10.2	9.2	9.6
Per capita ².....lb.	82.5	88.2	95.2	101.1	102.3	96.6	86.2	89.0
By newspapers ³.....mil. sh. tons	6.9	8.0	9.0	9.8	10.0	9.5	8.5	8.9
Advertising content ⁴.....percent	59.4	60.5	61.5	64.4	65.5	65.6	63.7	63.5
Other content ⁴.....percent	40.6	39.5	38.5	35.6	34.5	34.4	36.3	36.5
Newspaper pages per issue:⁵								
Daily.....	43	50	47	56	59	60	57	(NA)
Sunday.....	142	167	145	176	182	188	180	(NA)

NA Not available. ¹ Apparent consumption: Production plus imports minus exports adjusted for year-end changes in newspaper publishers' inventories and domestic mill stocks. ² Based on U.S. Bureau of the Census estimated resident population as of July 1. ³ Estimated. Source: U.S. Bureau of Domestic Commerce unpublished data. ⁴ Based on data from Media Records, Inc. ⁵ Source: Editor and Publisher Co., Inc., *Editor and Publisher*, weekly (copyright).

Source: Except as noted, American Newspaper Publisher's Association, Reston, Va., *Newsprint Statistics, 1976*, annual, and *Facts About Newspapers, 1977*, annual.

NO. 970. REGISTRATION OF COPYRIGHTS, BY SUBJECT MATTER: 1960 TO 1976

[In thousands. For years ending June 30. Comprises copyrights issued to citizens of the United States and residents of foreign countries. See also *Historical Statistics, Colonial Times to 1970*, series W 82-95]

SUBJECT MATTER OF COPYRIGHT	1960	1965	1970	1971	1972	1973	1974	1975	1976
Total.....	243.9	293.6	316.5	329.7	344.6	353.6	372.8	401.3	411.0
Books.....	60.0	76.1	88.4	96.1	103.2	104.5	104.8	111.9	113.2
Periodicals (issues).....	64.2	78.3	83.9	84.5	84.7	88.6	92.2	95.1	96.0
Contrib. to newspapers, periodicals.....	3.3	2.1	1.9	1.9	2.0	2.1	2.2	2.6	3.1
Lectures, sermons, addresses.....	.8	.8	1.7	1.9	1.9	1.7	1.6	1.9	1.8
Dramatic or dramatico-musical comp.....	2.4	3.3	3.4	3.6	3.8	4.0	4.0	4.9	4.9
Musical compositions.....	65.6	80.9	88.9	95.2	97.5	95.3	104.5	114.8	118.5
Maps.....	1.8	3.3	1.9	1.7	1.6	1.9	1.5	1.8	1.6
Works of art, models, or designs.....	5.3	5.7	6.8	7.9	7.9	8.6	8.5	11.0	12.2
Reproductions of works of art.....	2.5	3.2	3.0	3.0	3.4	3.2	3.6	5.0	5.6
Scientific or technical drawings ¹.....	.8	1.2	.8	.9	1.1	1.1	.8	.9	.9
Photographs, prints and illustrations.....	4.2	3.8	4.5	5.4	5.7	5.8	6.1	6.6	7.6
Commercial prints and labels.....	8.1	7.5	5.3	4.4	4.1	4.2	5.0	4.7	4.5
Motion picture photoplays.....	2.8	2.5	1.2	1.2	1.8	1.4	1.3	1.0	1.9
Motion pictures not photoplays.....	.7	1.2	1.3	1.2	1.4	1.4	1.7	2.0	2.3
Sound recordings ²	(X)	(X)	(X)	(X)	1.1	6.7	9.4	8.9	9.0
Renewals of all classes.....	21.4	23.5	23.3	20.8	23.2	23.1	25.5	28.2	27.7

X Not applicable. ¹ Includes plastic works. ² Registration began in 1972.
Source: The Library of Congress, *Annual Report*.

NO. 971. BOOKS—IMPORTS AND TRANSLATIONS INTO ENGLISH: 1973 TO 1975

[Imports cover all books printed abroad and distributed in U.S. on exclusive basis. See also headnote, table 972]

SUBJECT	IMPORTS				IMPORTS			LANGUAGE	TRANSLATIONS		
	1973	1974	1975		1973	1974	1975		1973	1974	1975
Total.....	3,283	3,478	4,159					Total.....	1,428	1,611	1,546
Agriculture.....	41	40	65	Law.....	42	58	52	French.....	303	393	362
Art.....	153	113	142	Literature.....	173	155	210	German.....	286	333	357
Biography.....	80	100	96	Medicine.....	255	340	421	Italian.....	54	68	74
Business.....	81	79	66	Musical.....	18	19	17				
Education.....	104	112	123	Philosophy, psychology.....	112	114	122	Oriental.....	89	76	70
Fiction.....	52	36	37	Poetry, drama.....	133	77	145	Russian.....	177	184	191
General works.....	89	111	119	Religion.....	74	70	83	Scandinavian.....	55	63	62
History.....	122	98	188	Science.....	595	747	817	Spanish.....	71	72	75
Home econom- ics.....	37	22	27	Sociology, economics.....	680	671	909	Other.....	393	422	365
Juvenile.....	18	27	13	Sports, recreation.....	34	49	70				
Language.....	87	69	125	Technical books.....	151	173	211				
				Travel.....	152	198	101				

Source: R. R. Bowker Co., New York, N.Y., *Publishers' Weekly*. (Copyright by Xerox Corporation.)

NO. 972. NEW BOOKS AND NEW EDITIONS PUBLISHED, BY SUBJECT: 1960 TO 1976

(Comprises new books (those published for the first time) and new editions (published with changes in text or format). Excludes government publications; subscription books, except encyclopedias; dissertations; periodicals and quarterlies; and pamphlets of under 49 pages. Beginning 1965, data not strictly comparable with earlier years due to changes in classifications. See also *Historical Statistics, Colonial Times to 1970*, series R 191-216]

SUBJECT	1960	1965	1970	1974	1975	1976		
						Total	New books	New editions
Total	15,012	28,595	36,071	40,846	39,372	35,141	26,983	8,158
Agriculture.....	156	270	265	391	456	477	373	104
Art.....	470	971	1,169	1,525	1,561	1,369	1,101	268
Biography.....	879	685	1,536	2,197	1,968	1,714	1,244	470
Business.....	305	537	797	925	820	843	661	182
Education.....	348	954	1,178	1,161	1,038	899	760	139
Fiction.....	2,440	3,241	3,137	3,562	3,805	3,458	2,067	1,391
General reference.....	282	634	846	1,191	1,113	1,034	857	177
History.....	865	1,682	1,995	1,292	1,823	1,934	1,343	591
Home economics.....	197	300	321	828	728	690	564	126
Juvenile.....	1,725	2,895	2,640	2,592	2,292	2,210	2,039	171
Language.....	228	527	472	441	438	409	307	102
Law.....	394	436	604	1,031	915	698	540	158
Literature.....	736	1,686	3,085	2,285	1,904	1,405	945	460
Medicine.....	520	1,218	1,476	2,281	2,282	2,128	1,638	490
Music.....	98	300	404	273	305	302	188	114
Philosophy, psychology.....	480	979	1,280	1,368	1,374	1,192	886	306
Poetry, drama.....	492	894	1,474	1,626	1,501	1,307	1,042	265
Religion.....	1,104	1,855	1,788	1,851	1,778	1,748	1,382	366
Science.....	1,089	2,562	2,358	3,049	2,942	2,342	1,827	415
Sociology, economics.....	754	3,242	5,912	6,640	6,590	5,960	4,735	1,225
Sports, recreation.....	286	591	799	1,132	1,225	1,034	841	193
Technology.....	698	1,153	1,141	1,593	1,720	1,489	1,191	298
Travel.....	466	833	1,394	1,612	794	499	352	147

Source: R. R. Bowker Co., New York, N.Y., *Publishers' Weekly*. (Copyright by Xerox Corporation.)

NO. 973. BOOKS AND PERIODICALS—AVERAGE RETAIL PRICES: 1970 TO 1976

SUBJECT	AVERAGE PRICES OF BOOKS (per vol.)				SUBJECT	AVERAGE PRICES OF PERIODICALS ⁴			
	1970	1974	1975	1976		1970	1974	1975	1976
Hard cover books¹	\$11.66	\$14.09	\$16.19	\$16.32	Total	\$10.41	\$17.71	\$19.94	\$22.52
Agriculture.....	10.42	13.21	13.72	14.01	Agriculture.....	5.17	8.12	9.70	10.75
Art.....	16.16	14.46	17.90	19.91	Business and economics.....	9.03	13.90	15.26	16.98
Biography.....	11.49	12.65	14.09	14.81	Chemistry and physics.....	33.45	65.47	76.84	86.72
Business.....	12.45	14.97	16.54	16.22	Children's periodicals.....	2.65	3.72	4.69	5.32
Economics ²	12.38	17.47	21.65	20.03	Education.....	7.09	12.64	14.72	16.00
Education.....	10.75	10.33	10.81	12.95	Engineering.....	12.07	24.38	26.64	31.87
Gen. reference.....	(NA)	23.02	21.60	21.89	Fine and applied arts.....	7.50	9.84	11.09	12.42
History.....	14.75	15.69	15.85	16.63	History.....	6.90	9.57	11.14	11.94
Home economics.....	7.30	8.82	10.27	10.23	Home economics.....	7.56	12.31	14.24	17.86
Juveniles.....	4.05	5.01	5.82	5.87	Industrial arts.....	7.59	9.63	10.59	12.61
Law.....	16.41	18.24	23.22	19.19	Journalism, communications.....	6.36	13.13	14.70	15.90
Literature.....	11.05	12.63	14.89	14.65	Labor and industrial relations.....	3.59	6.71	7.40	10.33
Fiction.....	5.51	7.43	8.31	9.87	Law.....	9.84	14.56	15.00	16.21
Poetry and drama.....	9.35	9.93	10.76	12.41	Library science.....	7.88	12.53	14.18	15.96
Medicine.....	13.05	18.92	22.15	23.43	Literature and languages.....	6.15	9.16	10.41	11.60
Music.....	11.44	14.43	14.83	15.73	Mathematics, botany, geology, and general science.....	18.11	30.27	35.95	42.51
Religion.....	8.51	9.70	11.16	12.47	Medicine.....	23.44	36.31	42.38	47.47
Science.....	14.95	20.83	22.81	23.95	Philosophy and religion.....	5.84	8.84	9.05	9.94
Sports ³	9.96	9.70	10.97	11.40	Physical ed. and recreation.....	5.34	7.17	7.80	9.27
Technology.....	14.91	17.74	19.66	20.47	Political science.....	6.72	10.79	12.79	13.09
Travel.....	(NA)	13.57	15.43	16.73	Psychology.....	17.12	25.79	27.51	29.39
Paperbacks:					Sociology and anthropology.....	7.31	13.03	14.85	17.11
Mass market.....	.95	1.28	1.46	1.60	Zoology.....	16.86	24.78	27.37	31.34
Trade or higher.....	4.81	4.38	5.24	5.53	General interest periodicals.....	8.47	11.43	14.36	15.24

NA Not available. ¹ Excludes government documents, subscription books, and dissertations.

² Includes sociology.

³ Includes recreation.

⁴ Average annual subscription prices.

Source: R. R. Bowker Co., New York, N.Y., average prices of books, *Publishers' Weekly* and average prices of periodicals, *Bowker Annual of Library and Book Trade Information*. (Copyright by Xerox Corporation.)

No. 974. BOOKS AND PAMPHLETS—QUANTITY SOLD AND VALUE OF RECEIPTS: 1963 TO 1972

[Includes number of copies sold and dollar receipts reported by establishments classified in the "Books, publishing and printing" industry and by establishments reporting these receipts as "secondary" activities in other industries]

TYPE OF PUBLICATION	1963		1967		1972	
	Copies sold (mil.)	Receipts (mil. dol.)	Copies sold (mil.)	Receipts (mil. dol.)	Copies sold (mil.)	Receipts (mil. dol.)
Total	(NA)	1,547.8	(NA)	2,255.3	(NA)	2,915.4
All books	(NA)	1,484.3	(NA)	2,081.2	(NA)	2,711.2
Textbooks	(NA)	¹ 471.1	(NA)	¹ 733.6	(NA)	¹ 809.6
Elementary, grades 1-8:						
Hardbound.....	54.9	112.7	85.1	180.6	65.8	162.4
Paperbound.....	38.5	21.7	30.0	24.3	44.5	57.5
High school, grades 9-12:						
Hardbound.....	32.9	97.8	36.3	122.7	40.5	132.4
Paperbound.....	9.4	8.8	11.6	14.9	7.3	12.8
College, grades 13 and over: ²						
Hardbound.....	24.2	131.7	41.2	226.6	57.1	277.3
Paperbound.....	9.3	14.9	16.7	32.7	(S)	45.1
Workbooks, paperbound.....	106.3	61.1	124.3	88.6	97.1	88.7
Standardized tests, paperbound ³	137.3	19.3	188.0	28.5	24.1	14.2
General reference books	(NA)	(NA)	(NA)	(NA)	(NA)	¹ 235.3
Subscription ⁴	35.7	207.3	33.1	216.3	(S)	198.5
Other.....	(NA)	(NA)	(NA)	(NA)	(S)	33.4
Technical, scientific, and professional books	(NA)	¹ 156.3	(NA)	¹ 240.2	(NA)	¹ 403.0
Law, designed for the profession.....	6.5	57.4	8.4	74.0	28.2	146.9
Medical, designed for the profession ⁵	4.1	24.1	8.5	41.0	(S)	59.1
Business, nonfiction, for adults.....	1.2	5.6	3.7	20.1	5.3	42.0
Other.....	29.6	63.0	15.5	93.5	(S)	135.1
Religious books	(NA)	¹ 81.1	(NA)	¹ 110.4	(NA)	¹ 131.2
Hardbound and paperbound:						
Bibles, complete editions; testaments.....	15.3	26.4	10.5	36.7	29.3	52.6
Hymnals and devotionals ⁶	4.7	8.2	7.8	15.4	6.6	9.0
Other, fiction or nonfiction: ⁷						
Hardbound.....	16.9	31.3	14.7	29.7	18.3	30.0
Paperbound.....	22.5	12.6	24.1	15.7	39.7	28.3
General books, trade, etc.	(NA)	¹ 458.2	(NA)	¹ 657.7	(NA)	¹ 1,006.7
Book club books, hardbound and paperbound.....	75.7	143.4	147.2	201.5	112.2	131.3
Wholesale paperbound books, digest size ⁸	241.4	60.5	201.1	67.7	159.8	90.3
Adult trade books, fiction or nonfiction: ⁹						
Hardbound.....	40.2	108.5	52.7	148.9	(S)	232.1
Paperbound.....	48.9	34.5	148.6	82.7	385.8	220.5
Juvenile, fiction and nonfiction: ⁹						
\$1.00 and over retail.....	55.1	72.7	65.3	107.5	63.8	88.2
Under \$1.00 retail.....	120.5	31.3	144.3	35.1	(D)	(D)
Other books, excluding pamphlets	(NA)	110.3	(NA)	(NA)	(NA)	¹ 125.4
Hardbound.....	(S)	84.4	29.5	108.1	(S)	71.0
Paperbound.....	41.4	25.9	(S)	(S)	25.6	29.2
Pamphlets	(NA)	(S)	(S)	(S)	(X)	48.7
Religious.....	(S)	(S)	69.9	2.1	(NA)	(NA)
Other.....	(S)	32.9	(S)	(S)	(NA)	(NA)
Books and pamphlets, not specified by kind	(NA)	18.9	(X)	97.0	(X)	155.5

D Withheld to avoid disclosing figures for individual companies. NA Not available.

S Does not meet publication standards.

¹ Includes receipts not specified by kind, as follows (in millions of dollars): Textbooks, 1963, 3.1; 1967, 14.7; and 1972, 19.2; general reference, 1972, 3.4; technical, scientific, and professional, 1963, 6.2; 1967, 11.6; and 1972, 19.9; religious, 1963, 2.6; 1967, 12.9; and 1972, 11.3; general, 1963, 7.3; 1967, 14.3; and 1972, withheld; other, excluding pamphlets, 1972, 25.2.

² Includes private business and secretarial school, post-high vocational schools, and institutes and training courses of college grade. ³ Objective tests, manuals, etc.; includes answer sheets.

⁴ Represents books sold direct to the consumer through agents or distributors, usually on installment plan of payment. Includes multivolume encyclopedias, children's literature, biblical sets, etc. Copies sold represent number of volumes rather than sets. ⁵ Includes nursing and dental subjects.

⁶ Includes missals and prayer books.

⁷ For adults and juveniles.

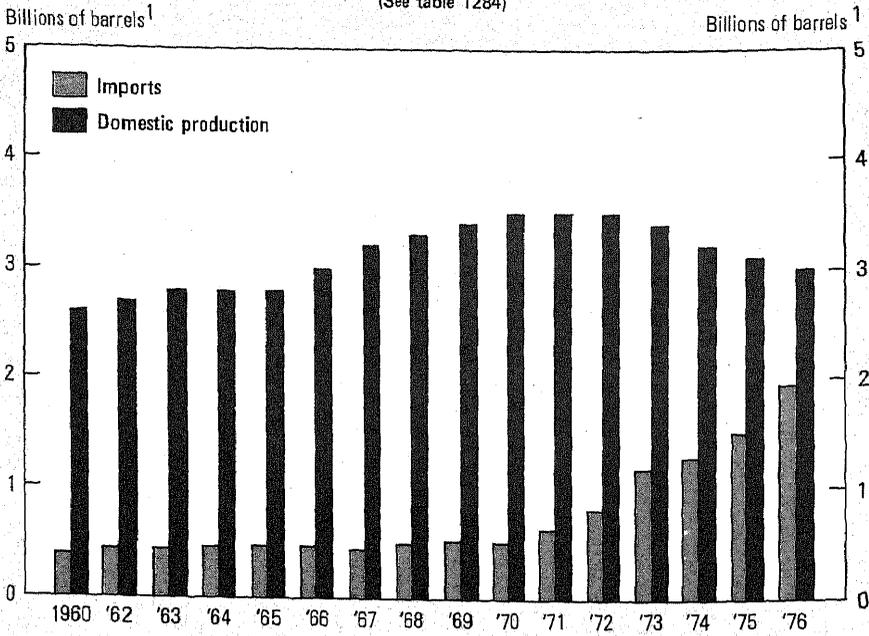
⁸ Digest size 4 1/4" x 6 1/4"; distributed 75 percent or more through magazine wholesalers in 1963, and 50 percent or more in 1967 and 1972.

⁹ Sold primarily through booksellers or book dealers (retail and wholesale) at trade discounts. Juvenile books represent hardbound and paperbound books, excluding toy books.

Source: U.S. Bureau of the Census, *Census of Manufactures: 1963*, vol. II, part 1; *Census of Manufactures: 1967*, vol. II, part 2; and *Census of Manufactures: 1972*, MC72(2)-27A.

Fig. 20-1. PETROLEUM SUPPLY — DOMESTIC PRODUCTION AND IMPORTS: 1960 TO 1976

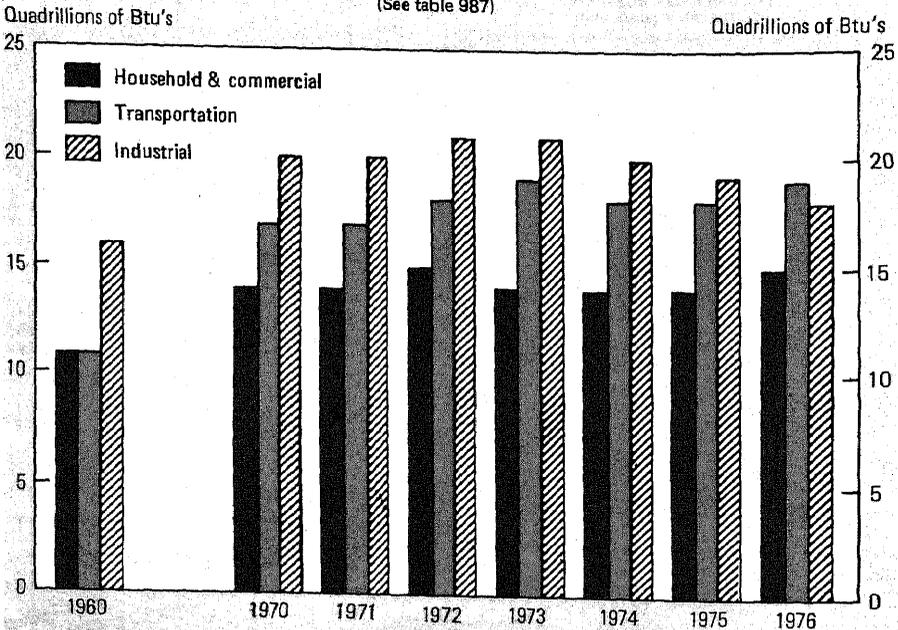
(See table 1284)



¹ 42-gallon barrels.

Fig. 20-2. FUEL RESOURCES — CONSUMPTION BY MAJOR CONSUMER GROUP: 1960 TO 1976

(See table 987)



Source of Figs. 20-1 and 20-2: Charts prepared by U.S. Bureau of the Census. Data from U.S. Bureau of Mines.

Section 20

Energy

This section presents statistics on fuel resources, energy production and consumption, electric energy, hydropower, nuclear power, and the electric and gas utility industries. The principal sources are the Federal Power Commission, the U.S. Bureau of Mines, the U.S. Energy Research and Development Administration, the Edison Electric Institute, New York, and the American Gas Association, Arlington, Va.

The Federal Power Commission, in its *Annual Report* and in periodic publications and surveys, issues information on the electric power and natural gas industries, and on water power. Among its annual reports are *Statistics of Privately Owned Electric Utilities in the United States*; *Statistics of Publicly Owned Electric Utilities in the United States*; *Sales of Firm Electric Power for Resale*; *Steam-Electric Plant Construction Cost and Annual Production Expenses*; *Hydroelectric Plant Construction Cost and Annual Production Expenses*; *Statistics for Interstate Natural Gas Pipeline Companies*; *Sales by Producers of Natural Gas to Natural Gas Pipeline Companies*; and *World Power Data*. Monthly reports include *Electric Power Statistics* and *Statistics of Major Interstate Natural Gas Pipeline Companies*. These various publications contain national and State data on production of electricity, capacity of generating plants, fuels used in energy production, energy sales and consumption, hydroelectric power, construction costs and production expenses of power plants, and depreciation practices.

The Commission also issues data on electric utility charges in its annual *All-Electric Homes and Typical Electric Bills*; projections for the future in its periodic *Electric Power Requirements and Supply of the United States, by Regions, Present and Future*; and maps showing principal natural gas pipelines and electric facilities.

United States Energy Through the Year 2000 and *Energy Perspectives 2*, prepared by the U.S. Bureau of Mines, present indicators of current and projected energy consumption; the Bureau of Mines' *Minerals Yearbook* and *Mineral Industry Surveys* contain data on coal, oil, and natural gas production and utilization. *Energy Facts*, prepared for the Subcommittee on Energy of the House Committee on Science and Astronautics by the Library of Congress, has a comprehensive selection of U.S. and foreign energy statistics obtained from primary sources.

The Edison Electric Institute's monthly bulletin and annual *Statistical Year Book of the Electric Utility Industry for the Year* contain data on the distribution of electric energy by public utilities; information on the electric power supply, expansion of electric generating facilities, and the manufacture of heavy electric power equipment in the annual *Year End Summary of the Electric Power Situation in the United States*. The American Gas Association, in its monthly and quarterly bulletins and its yearbook, *Gas Facts*, presents data on gas utilities, including sales, revenues, customers, prices, and other financial and operating statistics.

Other sources include the Rural Electrification Administration's *Annual Statistical Report—Rural Electric Borrowers* and the *Annual Report of the Energy Research and Development Administration*, containing data on atomic energy, equipment, finances, and licenses.

Historical statistics.—Tabular headnotes provide cross-references, where applicable, to *Historical Statistics of the United States, Colonial Times to 1970*. See Appendix I.

No. 975. TOTAL HORSEPOWER OF ALL PRIME MOVERS: 1940 TO 1976

[In millions. As of January, except as noted. Prior to 1960, excludes Alaska and Hawaii, except as noted. Prime movers are mechanical engines and turbines, and work animals, which originally convert fuels or force (as wind or falling water) into work and power. Electric motors, which obtain their power from prime movers, are excluded to avoid duplication. See also *Historical Statistics, Colonial Times to 1970*, series S 1-14]

ITEM	1940	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976, prel.
Total horsepower-----	2,773	4,868	7,158	11,008	15,096	20,408	22,913	24,262	24,516	25,100	25,732
Automotive ^{1,2} -----	2,511	4,404	6,632	10,367	14,306	19,325	21,736	23,029	23,224	23,752	24,339
Nonautomotive-----	262	464	526	641	790	1,083	1,175	1,233	1,292	1,348	1,393
Factories ³ -----	22	33	36	42	48	54	57	58	59	60	61
Mines ³ -----	7	22	31	35	40	45	46	46	46	47	47
Railroads ⁴ -----	92	111	60	47	44	54	57	57	61	62	64
Merchant ships and sailing vessels-----	5 ⁹	23 ⁵	24 ⁵	24	24	22	21	20	21	22	22
Farms-----	70	165	212	240	272	290	305	308	315	318	324
Electric central stations ⁵ -----	54	88	138	217	307	435	508	562	605	654	692
Aircraft ^{6,7} -----	5 ⁷	22 ⁵	26 ⁵	37	55	183	181	182	185	185	184

¹ Includes passenger cars, trucks, buses, and motorcycles. ² As of July 1. ³ Beginning 1965, data are projections. ⁴ Beginning 1965, not strictly comparable with earlier years. ⁵ Includes Alaska and Hawaii. ⁶ Includes estimates of about 1.4 million hp in work animals and 15,000 in windmills. ⁷ Includes private planes and commercial airlines.

Source: 1940-1965, The Twentieth Century Fund, J. F. Dewhurst and Associates, *America's Needs and Resources, A New Survey*; and John A. Waring, *Transactions of Canadian Sectional Meeting, World Power Conference, 1958*. Beginning 1960, John A. Waring, Washington, D.C., unpublished estimates.

No. 976. MINERAL FUEL RESOURCES AND ELECTRICITY—PRODUCTION AND CONSUMPTION, BY MAJOR SOURCE: 1940 TO 1976

[A British thermal unit (Btu) is the quantity of heat required to raise the temperature of 1 pound of water 1° F at or near its point of maximum density. Prior to 1960, excludes Alaska and Hawaii, except data for bituminous coal include Alaska for all years. Unit heat values used are, Btu per pound: Anthracite, 12,700; bituminous coal and lignite through 1950, 13,100; bituminous coal and lignite production; 1960, 12,830; 1965, 12,710; 1968, 12,530; 1969, 12,450; 1970, 12,290; 1971, 12,180; 1972, 12,025; 1973, 12,005; 1974, 11,865; 1975 and 1976, 11,750; bituminous coal and lignite consumption: 1960, 12,740; 1965, 12,610; 1968, 12,430; 1969, 12,330; 1970, 12,110; 1971, 12,010; 1972, 11,875; 1973, 11,825; 1974, 11,635; and 1975 and 1976, 11,400. Crude petroleum, in Btu per barrel: 5,800,000 through 1950; 1960, 5,695,000; 1965, 5,592,300; 1968, 5,585,010; and 1969-76, 5,800,000. Natural gas: total production multiplied by 1,075 Btu minus repressuring vent and waste gas multiplied by 1,035 through 1960; thereafter, dry natural gas production, which excludes gas used for repressuring, vented, or flared multiplied by 1,032 Btu per cubic foot for 1965; 1,031 in 1969-71; 1,027 in 1972; 1,021 in 1973; 1,024 in 1974; and 1,021 in 1975 and 1976, to which is added the computed energy equivalent of the heat value of natural gas liquids production for each year. For electricity series, hydropower and nuclear power converted to theoretical energy inputs calculated from national average heat rates for fossil fueled steam-electric plants using 10,760 Btu per net kilowatthour in 1960; 10,453 in 1965; 10,398 in 1968; 10,447 in 1969; 10,494 in 1970. Energy inputs for hydropower converted at an average heat rate of 10,478 Btu for 1971; 10,379 for 1972; 10,389 for 1973; 10,442 for 1974; and 10,363 for 1975 and 1976 per net kilowatthour generated; for nuclear power at an average heat rate of 10,660 Btu per net kilowatthour based on information from the Energy Research and Development Administration. See also *Historical Statistics, Colonial Times to 1970*, series M 76-92]

YEAR	Total production (tril. Btu)	PERCENT OF PRODUCTION				YEAR	Total consumption (tril. Btu)	PERCENT OF CONSUMPTION			
		Coal	Crude petroleum ¹	Natural gas ²	Electricity ³			Coal	Crude petroleum ¹	Natural gas ²	Electricity ³
1940-----	25,088	53.3	31.3	11.9	3.5	1940-----	23,908	52.4	31.4	12.4	3.8
1950-----	34,352	44.6	33.3	19.9	4.2	1950-----	33,992	38.0	37.4	20.4	4.2
1960-----	41,532	26.8	35.3	34.0	3.9	1960-----	44,569	22.8	41.8	31.7	3.7
1965-----	49,074	27.3	32.4	36.0	4.3	1965-----	53,343	22.3	40.1	33.7	3.9
1968-----	56,575	24.7	32.9	38.1	4.4	1968-----	61,763	20.5	39.8	35.7	4.0
1969-----	59,411	23.9	32.9	38.5	4.7	1969-----	64,979	19.6	40.0	36.1	4.3
1970-----	62,481	24.1	32.6	38.7	4.6	1970-----	66,909	19.0	40.4	36.3	4.3
1971-----	61,674	22.1	32.5	40.2	5.2	1971-----	68,348	17.6	41.0	36.6	4.8
1972-----	62,775	23.1	31.9	39.5	5.5	1972-----	71,609	17.3	42.3	35.5	4.9
1973-----	62,387	23.1	31.2	39.7	6.0	1973-----	74,555	17.8	43.2	33.3	5.2
1974-----	61,139	23.7	30.4	38.7	7.2	1974-----	72,668	17.8	42.5	33.4	6.3
1975-----	60,145	25.6	29.5	36.6	8.3	1975-----	70,580	18.2	42.8	31.5	7.2
1976, prel.-----	59,768	26.4	28.9	36.4	8.3	1976, prel.-----	73,999	18.6	43.9	30.6	6.9

¹ Includes commingled condensate. Beginning 1950, consumption includes net imports of petroleum products.

² Marketed production; represents natural gas, wet (unprocessed), and includes amount stored and lost in transmission. Consumption includes dry and liquid gas. Beginning 1965, on pressure base of 14.73 pounds per square inch absolute; formerly, on base of 14.65. ³ From hydropower and nuclear power.

Source: U.S. Bureau of Mines, *Minerals Yearbook*. Current data in *Mineral Industry Surveys*.

No. 977. PRODUCTION OF ENERGY RESOURCES, BY MAJOR SOURCES: 1950 TO 1976
[In trillions of British thermal units, except percent. See headnote, table 976. Minus sign (-) denotes decrease]

YEAR	Total production	FOSSIL FUELS				Hydro power ¹	Nuclear power
		Total ¹	Petroleum ¹	Natural gas ¹	Coal		
PRODUCTION							
1950	34,352	32,937	11,449	6,841	14,647	1,415	-
1955	39,082	37,722	14,445	10,592	12,745	1,360	-
1960	41,553	39,939	14,604	14,135	11,140	1,608	6
1965	49,074	46,977	15,930	17,652	13,395	2,059	38
1966	51,864	49,745	16,925	18,984	13,836	2,062	57
1967	54,829	52,402	18,100	20,087	14,215	2,347	80
1968	56,575	54,096	18,593	21,548	13,955	2,349	130
1969	59,411	56,617	19,556	22,838	14,223	2,648	146
1970	62,481	59,622	20,401	24,154	15,067	2,630	229
1971	61,674	58,445	20,033	24,805	13,607	2,825	404
1972	62,775	59,333	20,041	24,792	14,500	2,866	576
1973	62,387	58,639	19,493	24,764	14,382	2,860	888
1974	61,139	56,751	18,575	23,689	14,487	3,177	1,211
1975	60,145	55,147	17,729	22,022	15,396	3,165	1,833
1976, prel.	59,768	54,788	17,260	21,752	15,786	2,948	2,032
AVG. ANNUAL PERCENT CHANGE							
1950-1955	2.6	2.7	4.7	9.0	-2.7	-8	(X)
1955-1960	1.2	1.1	3	6.1	-2.3	3.4	(X)
1960-1964	3.5	3.4	1.7	4.9	3.6	4.1	55.2
1965	3.1	2.8	1.5	3.0	4.2	9.2	8.6
1966	5.7	5.9	6.2	7.5	3.3	.2	50.0
1967	5.7	5.3	6.9	5.8	2.7	13.8	40.4
1968	3.2	3.2	2.7	7.3	-1.8	.1	62.5
1969	5.0	4.7	5.2	6.0	1.9	12.7	12.3
1970	5.2	5.3	4.3	5.9	7.2	-7	56.8
1971	-1.3	-2.0	-1.8	2.7	-9.7	7.4	76.4
1972	1.8	1.5	(2)	(-2)	6.6	1.5	42.6
1973	-6	-1.2	-2.7	-1	-8	-2	54.2
1974	-2.0	-3.2	-4.7	-4.3	.7	11.1	36.4
1975	-1.6	-2.8	-4.6	-7.0	6.3	-4	51.4
1976, prel.	-6	-7	-2.7	-1.2	2.5	-6.9	10.9

- Represents zero. Z Less than .05 percent. X Not applicable.

¹ Beginning 1960, includes Alaska and Hawaii.

Source: 1950-1971, U.S. Library of Congress, *Energy Facts*, November 1973; thereafter, U.S. Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*.

No. 978. ENERGY CONSUMPTION INDICATORS: 1947 TO 1976

[Btu = British thermal unit. For definition, see headnote, table 976. Btu's were converted to coal equivalent on the basis of the 1972 average heat value of 24,050,000 Btu per ton]

YEAR	GROSS ENERGY INPUT (quadrillion Btu)			NET ENERGY INPUT (Btu)			NET ENERGY INPUT (coal equivalent)			Conversion efficiency ² (percent)
	Total	Fuel uses	Nonfuel uses	Total (quad- rillion)	Per capita (mil.)	Per dollar GNP ¹ (1,000)	Total (mil. tons)	Per capita (tons)	Per dollar GNP ¹ (lb.)	
1947	33.0	31.6	1.4	29.2	202.8	62.4	1,214	8.4	5.19	88.5
1950	34.0	32.6	1.4	29.7	194.8	55.2	1,235	8.1	4.59	87.3
1955	39.7	38.0	1.7	34.3	206.7	52.4	1,426	8.6	4.36	86.4
1960	44.6	42.4	2.2	38.2	211.5	51.8	1,588	8.8	4.31	85.7
1965	53.3	50.7	2.6	45.3	232.1	48.9	1,834	9.7	4.07	85.0
1966	56.4	53.0	2.8	47.4	242.1	48.5	1,979	10.1	4.03	86.4
1967	58.3	55.2	3.1	49.4	248.6	49.0	2,054	10.3	4.07	83.8
1968	61.7	58.4	3.4	52.2	260.1	49.6	2,170	10.8	4.12	83.7
1969	65.0	61.2	3.8	54.4	268.5	50.4	2,262	11.2	4.19	83.7
1970	66.9	63.0	3.9	55.9	273.1	52.0	2,325	11.4	4.32	83.6
1971	68.3	64.4	3.9	56.6	273.7	51.1	2,355	11.4	4.25	82.9
1972	71.6	67.4	4.2	59.1	283.6	50.4	2,455	11.8	4.19	82.5
1973	74.6	70.1	4.5	61.1	292.0	49.6	2,541	12.1	4.12	82.0
1974	72.7	68.3	4.4	59.1	279.5	48.7	2,457	11.6	4.05	81.3
1975	70.6	66.8	3.8	56.9	267.0	47.8	2,366	11.1	3.97	80.6
1976	74.0	69.8	4.2	59.6	277.7	47.1	2,478	11.5	3.92	80.5

¹ In constant 1972 dollars. ² Difference between total gross energy inputs and net energy inputs, representing losses from conversion of primary fuels to electrical energy.

Source: U.S. Bureau of Mines, *United States Energy Through the Year 2000*; *Minerals Yearbook*; and *Mineral Industry Surveys*.

No. 979. ENERGY CONSUMPTION—TOTAL AND PER CAPITA: 1920 TO 1976

[Btu=British thermal units. See headnote, table 978]

YEAR	ALL ENERGY ¹		NATURAL GAS ²		COAL ³		CRUDE PETROLEUM ⁴	
	Total (tril. Btu)	Per capita (mil. Btu)	Total (tril. Btu)	Per capita (mil. Btu)	Total (tril. Btu)	Per capita (mil. Btu)	Total (tril. Btu)	Per capita (mil. Btu)
1920.....	19,782	186	827	8	15,504	146	2,634	25
1925.....	20,899	180	1,212	10	14,706	127	4,156	36
1930.....	22,288	181	1,969	16	13,639	111	5,652	46
1935.....	19,107	150	1,974	16	10,634	84	5,499	43
1940.....	23,908	181	2,726	21	12,535	95	7,487	57
1945.....	31,541	238	3,973	30	15,972	121	9,619	73
1950.....	33,992	223	6,150	40	12,913	85	13,489	88
1955.....	39,703	239	9,232	56	11,540	70	17,524	106
1960.....	44,569	247	12,699	70	10,140	56	20,067	111
1965.....	53,343	274	16,098	83	11,908	61	23,241	120
1970.....	66,909	327	21,795	106	12,698	62	29,537	144
1971.....	68,348	330	22,469	109	12,043	58	30,570	148
1972.....	71,609	344	22,698	109	12,423	60	32,966	158
1973.....	74,555	356	22,512	108	13,294	64	34,852	107
1974.....	72,668	344	21,733	103	12,889	61	33,467	158
1975.....	70,580	331	19,948	93	12,828	60	32,742	153
1976, est.....	73,999	344	20,216	94	13,749	64	34,938	102

¹ Includes electricity, not shown separately. ² Dry gas only. Marketed production minus shrinkage caused by liquids extraction (34 cubic feet per gallon produced). ³ Includes bituminous coal, lignite, and anthracite coal. ⁴ Includes petroleum products and, beginning 1950, natural gas liquids.

Source: 1920-1972, U.S. Library of Congress, *Energy Facts*, November 1973; thereafter, U.S. Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*.

No. 980. ENERGY INPUT TO THE U.S. ECONOMY, 1970 TO 1976, AND PROJECTIONS, 1980 TO 2000, BY CONSUMING SECTOR AND ENERGY SOURCE

[In quadrillions of British thermal units, except percent. For definition, see headnote, table 976]

ITEM	1970	1971	1972	1973	1974	1975	1976, est.	PROJECTIONS		
								1980	1985	2000
Total gross energy input.....	66.9	68.3	71.6	74.6	72.7	70.6	74.0	87.1	103.5	163.4
By consuming sector:										
Net energy consumption.....	55.9	56.6	59.1	61.1	59.1	56.9	59.6	68.9	77.5	110.2
Residential and commercial.....	17.3	17.8	18.4	18.3	17.6	17.6	18.8	21.6	24.6	34.0
Percent of total.....	26	26	26	25	24	25	25	25	24	21
Industrial.....	22.1	21.8	22.6	23.8	23.0	20.8	21.4	25.9	28.8	43.5
Percent of total.....	33	32	32	32	32	29	29	30	28	27
Transportation.....	16.5	17.1	18.1	19.0	18.4	18.5	19.3	21.4	24.1	32.2
Percent of total.....	25	25	25	25	25	26	26	24	23	20
Non-fuel uses ¹	3.9	3.9	4.2	4.5	4.4	3.8	4.2	5.3	5.9	8.3
Percent of total.....	6	6	6	6	6	5	6	6	6	5
Conversion losses ²	11.0	11.7	12.5	13.4	13.6	13.7	14.4	18.2	26.0	53.2
Percent of total.....	16	17	17	18	19	19	19	21	25	32
By energy source:										
Petroleum.....	29.5	30.6	33.0	34.9	33.5	32.7	34.9	41.0	46.4	56.9
Domestic supply.....	22.1	22.2	21.9	21.4	21.2	20.3	19.9	24.0	30.1	33.1
Supplemental supply ³	7.4	8.4	11.1	13.5	12.4	12.4	15.0	17.0	16.3	23.8
Percent of total.....	25	27	34	39	37	38	43	41	35	42
Natural gas.....	21.8	22.5	22.7	22.5	21.7	19.9	20.2	20.6	20.1	19.6
Domestic supply.....	21.0	21.5	21.7	21.5	20.7	18.9	19.2	19.5	18.8	17.0
Gas imports.....	.8	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.3	2.6
Percent of total gas.....	4	4	4	4	5	5	5	5	6	13
Coal.....	12.7	12.0	12.4	13.3	12.9	12.8	13.7	17.2	21.3	34.8
Nuclear power.....	.2	.4	.6	.9	1.2	1.8	2.0	4.5	11.8	46.1
Hydropower ⁴	2.6	2.9	2.9	3.0	3.3	3.2	3.1	3.8	3.9	6.0

¹ Primarily asphalt and road oil in the residential and commercial sector, chemical feedstocks in the industrial sector, and lubes and greases in the transportation sector. ² Losses caused by converting a primary energy source to a secondary energy source. ³ From imports, shale oil, coal liquefaction, etc. ⁴ Includes geothermal.

Source: U.S. Bureau of Mines, *United States Energy Through the Year 2000*; *Minerals Yearbook*; and *Mineral Industry Surveys*.

Energy Consumption and Production

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No. 981. WORLD ENERGY CONSUMPTION, 1960 TO 1973, AND PROJECTIONS, 1985 AND 1990, BY REGION AND ENERGY SOURCE

[In quadrillions of British thermal units, except percent. For definition of Btu, see headnote, table 976. One quadrillion Btu equals 500,000 barrels of petroleum per day for a year or 40 million tons of bituminous coal or one trillion cubic feet of natural gas or 100 billion kWh]

REGION AND ENERGY SOURCE					PROJECTIONS		PERCENT DISTRIBUTION			
	1960	1965	1970	1973	1985	1990	1960	1965	1970	1973
	World total	131.7	163.4	216.9	250.3	346.5	406.1	100.0	100.0	100.0	100.0
United States.....	44.6	53.3	67.0	74.6	102.9	117.1	33.9	32.6	30.9	29.8
Western Europe.....	26.4	34.4	46.0	52.2	75.2	87.2	20.0	21.1	21.2	20.8
Japan.....	3.7	6.2	12.0	14.5	25.5	31.8	2.8	3.8	5.5	5.8
Sino-Soviet bloc.....	39.0	45.2	58.3	68.2	94.0	113.0	29.6	27.7	26.9	27.2
Rest of world.....	18.0	24.3	33.6	40.7	48.9	57.0	13.7	14.9	15.5	16.3
Energy source:										
Coal.....	61.5	62.6	66.8	69.1	84.1	89.9	46.7	38.3	30.8	27.6
Petroleum.....	45.3	64.4	96.9	118.5	151.0	187.9	34.4	39.4	44.7	47.3
Natural gas.....	18.0	26.6	40.6	47.8	62.7	70.4	13.7	16.3	18.7	19.1
Hydropower and geothermal.....	6.9	9.6	11.8	13.2	16.2	17.7	5.2	5.9	5.4	5.3
Nuclear.....	-	.2	.8	1.8	32.5	60.2	-	.1	.3	.7

- Represents zero.

Source: U.S. Bureau of Mines, *Energy Perspectives 2*, June 1976.

No. 982. CRUDE OIL, NATURAL GAS, AND COAL—WORLD PRODUCTION, BY REGION: 1960 TO 1975

FUEL AND REGION	PRODUCTION							PERCENT DISTRIBUTION		
	1960	1965	1970	1972	1973	1974	1975	1960	1970	1975
CRUDE OIL (mil. bbl.)										
World	7,674	11,063	16,711	18,598	20,368	20,539	19,498	100.0	100.0	100.0
United States.....	2,575	2,849	3,517	3,465	3,361	3,203	3,052	33.6	21.0	15.7
Other W. Hemisphere.....	1,555	1,979	2,377	2,348	2,542	2,405	2,123	20.3	14.2	10.9
Western Europe.....	99	131	116	114	114	116	200	1.3	.7	1.0
Africa.....	105	812	2,207	2,086	2,161	1,990	1,825	1.4	13.2	9.4
Middle East.....	1,923	3,054	5,096	6,031	7,745	7,987	7,161	25.1	30.5	36.7
Far East and Oceania.....	202	246	503	691	816	816	806	2.6	3.0	4.1
Sino-Soviet bloc.....	1,215	1,993	2,896	3,275	3,629	4,022	4,329	15.8	17.2	22.2
NATURAL GAS (bil. cu. ft.)										
World	16,917	24,537	37,664	43,514	46,128	47,171	47,207	100.0	100.0	100.0
United States.....	12,771	16,040	21,921	22,532	22,648	21,601	20,109	75.5	58.2	42.6
Other W. Hemisphere.....	1,299	2,268	3,554	4,370	4,735	4,705	4,811	7.7	9.4	10.2
Western Europe.....	432	671	2,751	4,501	5,148	5,837	5,967	2.6	7.3	12.6
Africa.....	6	70	122	472	586	608	670	(Z)	.3	1.4
Middle East.....	57	171	460	906	1,277	1,423	1,436	.3	1.2	3.0
Far East and Oceania.....	168	166	525	606	776	881	938	.9	1.4	2.0
Sino-Soviet bloc.....	2,194	5,152	8,331	10,127	10,957	12,117	13,276	13.0	22.1	28.1
COAL (mil. sh. tons)										
World	2,899	3,079	3,317	3,339	3,404	3,459	3,615	100.0	100.0	100.0
United States.....	434	527	613	602	599	607	646	15.0	18.5	17.9
Other W. Hemisphere.....	21	22	28	33	35	35	39	.7	.8	1.1
Western Europe.....	618	601	500	458	466	439	459	21.3	15.1	12.7
Africa.....	48	59	66	70	75	77	78	1.7	2.0	2.2
Middle East.....	11	10	10	11	12	19	19	.4	.3	.5
Far East and Oceania.....	189	237	240	234	233	250	271	6.5	7.2	7.5
Sino-Soviet Bloc.....	1,578	1,622	1,861	1,930	1,984	2,032	2,103	54.4	56.1	58.2

Z Less than .05 percent. 1 Includes Cuba.

Source: U.S. Bureau of Mines, *Energy Perspectives 2*, June 1976, and unpublished data.

No. 985. CRUDE OIL IMPORTS INTO THE U.S., BY COUNTRY OF ORIGIN: 1965 TO 1976
 [In millions of 42-gallon barrels]

COUNTRY	1965	1970	1971	1972	1973	1974	1975	1976	PERCENT DISTRIBUTION					
									1965	1970	1973	1974	1975	1976
Total imports....	452	483	613	811	1,184	1,269	1,498	1,935	100.0	100.0	100.0	100.0	100.0	100.0
Algeria.....	3	2	5	32	44	66	96	149	.7	.4	3.7	5.2	6.4	7.7
Angola.....	-	-	1	6	18	18	26	2	-	-	1.5	1.4	1.8	.1
Canada.....	108	245	263	312	365	289	219	136	23.9	50.7	30.8	22.8	14.6	7.0
Ecuador.....	-	-	-	5	17	15	21	19	-	-	1.4	1.2	1.4	1.0
Egypt.....	1	8	7	3	5	3	2	6	.2	1.7	.4	.2	.1	.3
Indonesia.....	22	26	40	60	73	103	138	196	4.9	5.4	6.2	8.1	9.2	10.1
Iran.....	29	12	39	50	79	169	102	109	6.4	2.5	6.7	13.3	6.8	5.6
Kuwait.....	20	12	11	13	15	2	(Z)	4.4	2.5	1.3	.2	.1	(Z)	
Libya.....	15	17	19	40	49	1	81	162	3.3	3.5	4.1	.1	5.4	8.4
Mexico.....	-	-	-	-	(Z)	1	26	32	-	-	(Z)	.1	1.7	1.7
Nigeria.....	5	17	35	89	164	254	272	371	1.1	3.5	13.9	20.0	18.2	19.2
Norway.....	-	-	-	-	(Z)	13	5	13	-	-	-	-	.3	.7
Saudi Arabia.....	48	15	42	64	169	160	256	447	10.6	3.1	14.3	12.6	17.1	23.1
Trinidad.....	-	(Z)	-	9	22	23	42	38	-	(Z)	1.9	1.8	2.8	2.0
United Arab Emirates.....	5	23	29	27	26	25	43	93	1.1	4.8	2.2	2.0	2.9	4.8
United Kingdom.....	-	-	-	-	-	-	(Z)	5	-	-	-	(Z)	(Z)	.3
Venezuela.....	158	98	111	93	126	116	144	88	35.0	20.3	10.6	9.1	9.6	4.5
Other.....	38	8	11	8	12	24	24	69	8.4	1.6	1.0	1.9	1.6	3.5

- Represents zero. Z Less than 500,000 or less than .05 percent. ¹ Abu Dhabi prior to 1972.

Source: 1965-1972, American Petroleum Institute, *Annual Statistical Review*; U.S. Petroleum Industry Statistics, 1966-1972; thereafter, U.S. Bureau of Mines, *Minerals Yearbook* and *Mineral Industry Surveys*.

No. 986. PETROLEUM AND COAL PRODUCTS—SALES, NET PROFIT, AND PROFIT PER DOLLAR OF SALES: 1960 TO 1976

[Profit rates are averages of quarterly figures at annual rates]

ITEM	1960	1965	1970	1971	1972	1973	1974 ¹	1974 ²	1975 ²	1976 ²
Sales.....	bil. dol.. 30.0	41.4	64.1	71.6	78.1	97.8	180.4	113.5	121.8	135.8
Net profits before Federal income taxes.....	bil. dol.. 3.3	5.3	7.0	7.0	6.5	9.5	15.6	17.7	13.3	16.6
Net profits after taxes.....	bil. dol.. 2.9	4.5	5.9	6.1	5.2	7.4	12.3	14.5	9.3	11.6
Depreciation and depletion ³	bil. dol.. 2.3	2.9	4.5	4.7	5.0	5.7	(NA)	5.1	5.6	5.8
Profits per dollar of sales:										
Before Federal income taxes.....	cents.. 11.0	12.7	11.0	9.8	8.4	9.8	8.6	15.6	10.9	12.3
After taxes.....	cents.. 9.7	10.9	9.2	8.5	6.7	7.6	6.8	12.8	7.6	8.5
Profits on stockholders equity:										
Before Federal income taxes.....	percent.. 11.4	13.9	13.0	12.4	11.0	14.9	(NA)	25.8	17.9	20.6
After taxes.....	percent.. 10.1	11.8	11.0	11.0	8.7	11.6	(NA)	21.1	12.5	14.4

NA Not available. ¹ Estimates based on FTC reporting requirements in use prior to 1974.

² Estimates based on new FTC reporting requirements.

³ Includes accelerated amortization of emergency facilities.

Source: U.S. Federal Trade Commission, *Quarterly Financial Report for Manufacturing Corporations*.

No. 987. CONSUMPTION OF FUEL RESOURCES, BY MAJOR CONSUMER GROUP: 1970 TO 1976

[For definition of Btu, see headnote, table 976. See also *Historical Statistics, Colonial Times to 1970*, series S 25-31]

CONSUMER GROUP	FUEL INPUTS (quadrillion Btu)						PERCENT DISTRIBUTION			
	1970	1972	1973	1974	1975	1976	1970	1974	1975	1976
Total.....	66.9	71.6	74.6	72.7	70.6	74.0	100.0	100.0	100.0	100.0
Household and commercial.....	14.3	14.9	14.6	13.9	13.6	14.7	21.4	19.1	19.3	19.9
Industrial.....	19.7	19.8	20.9	20.1	18.0	18.4	29.4	27.7	25.5	24.9
Transportation ¹	16.5	18.1	18.9	18.4	18.5	19.3	24.7	25.3	26.2	26.1
Electrical generation, utilities ²	16.2	18.5	19.8	20.0	20.2	21.4	24.2	27.5	28.6	28.9
Miscellaneous.....	.2	.2	.3	.3	.3	.2	.3	.4	.4	.2
Utility electricity purchased ³	5.2	6.0	6.4	6.4	6.6	7.0	(X)	(X)	(X)	(X)

X Not applicable. ¹ Includes bunkers and military transportation.

² Includes outputs of hydropower and nuclear power converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants provided by the Federal Power Commission.

³ Utility electricity generated and imported, distributed to the other consuming sectors as energy resource input. Converted at 3,412 Btu per kilowatt-hour.

Source: U.S. Bureau of Mines, *Minerals Yearbook*. Current data in *Mineral Industry Surveys*.

No. 988. UTILITY ELECTRIC ENERGY USE, 1960 TO 1976, AND PROJECTED REQUIREMENTS, 1980 TO 1990

[Excludes generation by industrial facilities and railways having generating facilities of their own. Minus sign (-) denotes decrease]

ITEM	1960	1965	1970	1973	1974	1975 ¹	1976 ¹	1980	1985	1990
Energy use.....bil. kWh.....	764	1,060	1,534	1,873	1,867	1,918	2,037	2,618	3,487	4,552
Average annual percent change ²	6.9	6.8	7.7	6.9	- 3	2.7	6.2	6.5	5.9	5.5
Kilowatthour per capita ³	4,229	5,457	7,487	8,902	8,811	8,982	9,469	11,784	14,973	18,693
Peak load.....mil. kW.....	138	189	276	335	327	345	355	492	657	866
Average annual percent change ²	7.1	6.5	7.9	6.7	-2.4	5.5	2.9	8.5	6.0	5.7

¹ Preliminary. ² Change from prior year shown; for 1960, change from 1955.

³ Based on U.S. Bureau of the Census population data including Armed Forces abroad for July 1, except 1970. Projection figures used are for series II (see table 3, p. 6) based on 1976 estimates of the population.

Source: U.S. Federal Power Commission, unpublished data.

No. 989. ELECTRIC UTILITY INDUSTRY—CAPABILITY, PEAK LOAD, AND CAPABILITY MARGIN: 1970 TO 1976

[Excludes Alaska and Hawaii. Minus sign (-) denotes decrease]

YEAR	CAPABILITY			PEAK LOAD		CAPABILITY MARGIN	
	Total (mil. kW)	Annual increase		Total (mil. kW)	Annual percent change	Total (mil. kW)	Percent of capability
		Total (mil. kW)	Percent				
1970: Summer.....	326.9	26.6	8.9	274.7	6.6	52.3	16.0
December.....	339.1	27.6	8.9	248.6	5.1	90.5	20.7
1972: Summer.....	381.7	28.5	8.1	319.2	9.3	62.6	10.4
December.....	394.1	27.4	7.5	291.0	11.2	103.1	20.2
1973: Summer.....	415.5	33.8	8.9	343.9	7.8	71.6	17.2
December.....	432.5	38.4	9.8	289.4	- 5	143.1	33.1
1974: Summer.....	444.4	28.9	7.0	349.3	1.6	95.2	21.4
December.....	466.5	34.0	7.9	296.5	2.5	170.0	36.4
1975: Summer.....	479.3	34.9	7.9	356.8	2.2	122.5	25.6
December.....	494.8	28.3	6.1	324.6	9.5	170.2	34.4
1976: Summer, prel.....	500.7	21.4	4.5	370.6	3.9	130.1	26.0
December, prel.....	508.9	14.2	2.9	339.0	4.5	169.9	33.4

Source: Edison Electric Institute, New York, N.Y., 1976 Year-End Summary of the Electric Power Situation in the United States.

No. 990. FEDERAL ELECTRIC UTILITY PROJECTS—INSTALLED CAPACITY AND INVESTMENT ALLOCATED TO ELECTRIC PLANT: 1960 TO 1975

[As of June 30. Comprises only electricity-generating plant of these projects; excludes projects not primarily manufacturing electricity (e.g., West Point, Annapolis). Investments represent allocation to power projects for capital equipment and improvements. Reserves for depreciation not deducted]

PROJECT GROUP OR SYSTEM	INSTALLED CAPACITY (1,000 kW)					INVESTMENT ALLOCATED ¹ (mil. dol.)				
	1960	1970	1973	1974	1975	1960	1970	1973	1974	1975
Total.....	22,616	36,650	41,297	42,910	47,394	5,398	10,121	12,888	13,440	15,043
Percent capacity of all electric utilities.....	13.5	10.7	9.4	9.0	10.7	(X)	(X)	(X)	(X)	(X)
Central Valley:										
Bureau of Reclamation.....	630	1,322	1,334	1,334	1,331	138	213	492	544	332
Columbia Basin:										
Bonneville Power Admin. ²	-	-	-	-	-	480	1,118	1,394	1,492	1,620
Bureau of Reclamation.....	2,282	2,464	2,564	2,599	2,733	277	359	503	562	621
Corps of Engineers.....	3,781	6,522	8,248	8,435	8,177	850	1,603	1,986	2,010	2,315
Hoover and Parker-Davis:										
Bureau of Reclamation.....	1,595	1,690	1,690	1,690	1,690	209	225	228	229	230
Missouri Basin:										
Bureau of Reclamation.....	397	693	693	691	691	304	508	527	535	552
Corps of Engineers.....	745	2,048	2,048	2,048	2,048	357	714	719	721	721
Southeastern Power Administration:										
Corps of Engineers.....	1,271	1,910	1,910	2,010	2,083	410	644	648	699	740
Southwestern Power Admin.:										
Southwestern Power Admin. ²	-	-	-	-	-	27	56	60	61	61
Corps of Engineers.....	601	1,533	1,777	1,923	1,847	203	438	573	609	611
Tennessee Valley Authority.....	11,032	17,256	19,736	20,836	25,450	2,054	3,703	5,224	5,430	6,671
Other projects.....	282	1,212	1,297	1,344	1,344	88	54	534	548	557

- Represents zero. X Not applicable. ¹ Includes estimates. ² Transmission.

Source: U.S. Federal Power Commission, *Statistics of Publicly Owned Electric Utilities in the United States*, annual, and annual summaries.

No. 991. ELECTRIC ENERGY PRODUCTION AND INSTALLED GENERATING CAPACITY, BY CLASS OF OWNERSHIP AND TYPE OF PRIME MOVER: 1955 to 1976

[Production for calendar years; other data as of December 31. Prior to 1965, excludes Alaska and Hawaii. See also *Historical Statistics, Colonial Times to 1970*, series S 32-52, S 78-82, and S 86-94]

ITEM	1955	1960	1965	1970	1972	1973	1974	1975	1976
PRODUCTION									
Total.....bil. kWh..	629	842	1,158	1,636	1,855	1,965	1,968	2,003	2,123
Average annual percent change ¹	10.1	6.0	6.6	7.2	6.5	5.9	.1	1.8	6.0
Production, kWh per kW of capacity.....	4,805	4,529	4,548	4,438	4,448	4,262	3,960	3,801	3,855
Industrial plants ².....bil. kWh..	82	88	102	104	105	105	101	85	87
Electric utilities ³.....bil. kWh..	547	753	1,055	1,532	1,750	1,860	1,867	1,918	2,037
Privately owned.....bil. kWh..	421	579	809	1,183	1,359	1,452	1,442	1,487	1,582
Percent of total utilities.....	76.9	76.8	76.7	77.2	77.7	78.1	77.2	77.5	77.7
Publicly owned.....bil. kWh..	126	175	246	349	391	408	425	431	455
Municipal.....bil. kWh..	26	37	50	71	79	81	79	82	78
Federal.....bil. kWh..	89	112	145	186	207	212	220	221	236
Cooperatives and other.....bil. kWh..	11	26	51	91	105	115	126	128	141
Source of energy (percent):									
Coal ⁴	} 55.1	} 53.6	} 54.5	} 46.1	} 44.3	} 45.8	} 44.6	} 44.6	} 46.5
Nuclear.....									
Oil.....									
Gas.....									
Hydro.....									
Coal ⁴	6.8	6.1	6.1	11.9	15.6	16.8	16.0	15.1	15.7
Oil.....	17.4	21.0	21.0	24.3	21.5	18.3	17.1	15.6	14.4
Gas.....	20.7	19.3	18.4	16.2	15.8	14.8	16.3	15.8	14.1
Hydro.....									
INSTALLED CAPACITY									
Total.....mil. kWh..	131	186	255	360	417	461	497	527	550
Average annual percent change ¹	9.6	7.3	6.5	7.2	7.5	10.6	7.8	6.0	4.6
Industrial plants ².....mil. kWh..	16	18	18	19	19	19	19	19	19
Electric utilities ³.....mil. kWh..	114	168	236	342	398	442	478	508	532
Privately owned.....mil. kWh..	87	128	178	263	314	348	377	399	416
Percent of total utilities.....	75.9	76.5	75.2	76.9	78.9	78.7	78.9	78.5	78.2
Publicly owned.....mil. kWh..	28	40	59	79	84	94	101	109	116
Municipal.....mil. kWh..	8	11	15	21	23	25	27	29	31
Federal.....mil. kWh..	17	22	32	39	40	45	46	50	52
Cooperatives and other.....mil. kWh..	3	6	11	19	21	24	28	30	33
TYPE OF PRIME MOVER									
Electric utilities: ³									
Number of plants, total ⁵	3,587	3,435	3,290	3,533	3,614	3,081	3,691	3,674	3,676
Hydro.....	1,381	1,331	1,231	1,188	1,175	1,161	1,159	1,156	1,156
Steam conventional.....	} 1,045	} 1,055	} 1,059	} 998	} 996	} 992	} 994	} 984	} 981
Gas turbine.....									
Steam nuclear.....	-	5	9	16	26	30	38	45	48
Internal combustion.....	1,161	1,044	991	1,008	1,005	1,038	1,006	978	971
Production.....bil. kWh..	547	753	1,055	1,492	1,750	1,861	1,867	1,918	2,037
Hydro.....bil. kWh..	113	146	194	249	273	272	301	300	284
Steam conventional.....bil. kWh..	} 430	} 602	} 852	} 1,201	} 1,387	} 1,469	} 1,414	} 1,417	} 1,533
Gas turbine.....bil. kWh..									
Steam nuclear.....bil. kWh..	-	1	4	22	54	33	114	173	191
Internal combustion.....bil. kWh..	4	4	5	5	7	7	6	6	5
Installed capacity.....mil. kWh..	114	168	236	340	398	442	479	508	532
Hydro.....mil. kWh..	25	32	44	55	56	62	64	66	68
Steam conventional.....mil. kWh..	} 87	} 133	} 188	} 260	} 294	} 321	} 338	} 353	} 369
Gas turbine.....mil. kWh..									
Steam nuclear.....mil. kWh..	-	(2)	1	6	15	23	40	44	47
Internal combustion.....mil. kWh..	2	3	3	4	5	5	5	5	5

- Represents zero. Z Less than .5 million. ¹ Change from prior year shown; for 1955, change from 1950. ² Plants of 100 kilowatts and over, including stationary powerplants of railroads. ³ For public use. ⁴ Includes small percentage from wood and waste and geothermal sources. ⁵ Each prime mover type in combination plants counted separately.

Source: U.S. Federal Power Commission, *Electric Power Statistics*, and press releases.

No. 992. ELECTRIC ENERGY—PRODUCTION AND INSTALLED GENERATING CAPACITY, 1970 TO 1976, AND PERCENT PRIVATELY-OWNED, 1976, BY STATES

[Capacity as of Dec. 31. Covers utilities for public use and industrial plants. Minus sign (-) denotes decrease]

STATE AND GEO-GRAPHIC DIVISION	PRODUCTION (bil. kWh)				INSTALLED CAPACITY (mil. kW)				ANNUAL PER-CENT CHANGE, 1970-1976		PERCENT PRIVATELY OWNED, 1976	
	1970	1974	1975	1976	1970	1974	1975	1976	Pro-duction	Capac-ity	Pro-duction	Capac-ity
U.S.....	1,636.4	1,968.4	2,003.0	2,123.4	360.3	496.9	527.3	550.4	4.4	7.3	77.7	75.5
N.E.	65.3	73.8	73.9	80.0	14.5	19.9	21.6	22.3	3.4	7.4	99.0	92.3
Maine.....	7.1	10.5	10.5	11.8	1.4	2.4	2.3	2.3	8.7	8.5	99.7	73.0
N.H.....	5.4	4.9	5.0	5.2	1.2	1.6	1.6	1.6	- .6	4.7	100.0	95.8
Vt.....	1.0	3.7	4.6	4.4	.3	.9	.9	.9	28.0	19.2	98.2	90.8
Mass.....	30.2	29.6	31.3	33.7	6.6	9.3	9.8	10.4	1.8	7.9	98.4	92.6
R.I.....	1.6	1.3	.8	.5	.4	.3	.3	.3	-16.9	-4.0	99.4	96.2
Conn.....	20.0	23.7	21.7	24.5	4.6	5.3	6.6	6.8	3.4	6.6	99.6	97.5
M.A.	221.3	243.7	245.5	256.5	52.3	67.7	69.3	73.6	2.5	5.9	87.2	89.4
N.Y.....	97.7	106.2	109.5	111.4	22.7	27.9	28.9	31.0	2.2	5.3	70.9	79.1
N.J.....	38.2	35.8	24.0	26.0	8.9	11.4	11.6	11.6	-6.2	4.4	99.3	97.3
Pa.....	85.3	103.7	112.0	119.0	20.7	28.4	28.8	31.1	5.7	7.0	100.0	96.6
E.N.C.	312.2	359.9	373.3	390.4	67.8	90.8	95.6	97.7	2.9	6.3	96.1	91.1
Ohio.....	85.6	102.1	105.7	111.8	18.2	24.3	25.7	25.7	4.5	5.9	99.0	93.3
Ind.....	59.1	63.4	65.4	68.2	12.2	14.3	14.6	15.8	2.4	4.4	96.4	88.6
Ill.....	76.6	93.5	94.7	100.1	18.3	25.3	26.0	26.8	4.5	6.6	97.5	94.9
Mich.....	61.1	66.1	72.3	73.3	12.2	18.1	20.0	20.0	3.1	8.7	93.1	87.7
Wis.....	29.7	34.7	35.4	37.0	6.9	8.8	9.3	9.4	2.2	5.3	89.0	85.2
W.N.C.	102.8	125.6	136.6	145.1	24.7	36.0	37.7	39.3	5.9	8.1	67.0	63.9
Minn.....	20.4	25.1	28.3	31.4	4.5	7.2	7.3	7.9	7.4	9.7	94.7	81.9
Iowa.....	15.1	16.5	16.4	18.2	3.7	4.9	5.5	5.4	3.1	6.6	84.4	74.3
Mo.....	29.4	38.4	40.8	42.5	7.7	11.2	11.2	12.1	6.3	7.8	80.6	76.8
N. Dak.....	6.7	8.6	8.4	10.4	1.4	1.3	1.7	1.7	7.5	4.0	6.0	9.2
S. Dak.....	7.3	6.4	10.1	10.0	1.7	1.7	2.1	2.1	5.3	3.8	29.5	33.8
Nebr.....	8.0	12.3	13.3	13.3	2.0	3.8	3.8	3.9	8.9	11.7	-	-
Kans.....	15.9	18.3	19.2	19.4	3.7	5.9	6.0	6.1	3.4	8.9	79.3	72.8
S.A.	263.3	351.3	355.5	383.2	56.6	88.9	95.2	99.8	6.5	9.9	93.5	89.2
Del.....	5.8	6.9	6.2	6.5	1.0	1.6	1.6	1.5	1.9	6.9	93.0	95.0
Md.....	24.9	30.1	28.1	32.3	5.3	7.0	7.8	8.4	4.4	7.9	99.8	96.7
D.C.....	3.1	2.4	1.2	1.3	1.1	1.3	1.3	1.3	-13.9	1.8	100.0	98.7
Va.....	31.0	35.8	37.3	39.2	6.8	9.5	10.2	10.2	4.0	6.9	98.4	92.6
W. Va.....	39.1	64.3	63.5	68.9	7.2	12.8	12.5	12.4	9.9	9.6	100.0	95.6
N.C.....	53.1	59.9	54.6	62.5	10.0	13.3	15.2	15.2	2.7	7.3	97.7	95.6
S.C.....	19.0	33.1	40.3	39.7	4.6	10.4	11.1	11.2	13.0	16.1	84.8	83.1
Ge.....	29.4	40.4	44.2	49.3	6.7	11.3	13.4	14.4	9.0	13.4	92.3	86.8
Fla.....	57.8	78.4	80.1	83.5	13.9	21.7	22.1	25.3	6.3	10.5	85.1	81.8
E.S.C.	151.6	180.6	176.2	190.6	31.8	43.5	47.0	47.1	3.9	6.7	35.9	36.7
Ky.....	45.2	53.6	51.1	57.4	9.4	12.1	12.1	12.1	4.1	4.4	39.0	42.9
Tenn.....	45.0	54.3	55.9	61.9	9.8	13.2	14.6	14.6	5.5	7.0	1.5	1.2
Ala.....	49.9	60.6	57.1	65.9	10.2	14.4	15.6	15.6	2.1	7.4	55.7	48.9
Miss.....	11.6	12.2	12.1	14.8	2.5	3.9	4.7	4.7	4.1	11.0	93.9	90.2
W.S.C.	210.1	264.3	261.9	276.1	46.1	66.9	71.4	74.9	4.7	8.4	88.0	77.2
Ark.....	15.4	14.4	15.2	14.0	3.6	5.0	5.2	5.2	-1.6	6.2	74.9	68.1
La.....	46.1	52.2	50.1	56.4	9.2	12.7	13.3	14.4	3.4	7.8	91.6	78.8
Okla.....	23.6	33.3	33.4	35.2	4.8	7.2	7.9	8.5	6.9	9.9	88.8	80.7
Tex.....	125.0	164.4	165.2	170.5	28.4	42.1	44.9	46.7	5.3	8.7	87.8	77.0
Mt.	76.7	110.5	115.8	128.5	17.7	25.8	28.6	31.7	9.0	10.1	66.6	62.6
Mont.....	10.0	11.1	11.9	16.1	1.8	1.9	2.4	3.0	8.2	8.3	59.0	60.2
Idaho.....	7.2	9.8	10.4	10.5	1.3	1.7	1.7	1.7	6.5	5.0	65.6	61.4
Wyo.....	6.6	11.0	12.2	16.1	1.2	2.3	2.8	3.4	15.7	19.2	93.4	91.2
N. Mex.....	15.5	20.8	20.2	20.3	2.9	3.8	4.4	4.7	7.0	8.2	71.4	64.1
Ariz.....	14.4	21.9	23.0	27.3	4.3	6.7	7.9	9.1	11.2	13.3	16.2	28.7
Utah.....	4.7	5.9	7.4	5.7	1.0	1.5	1.5	1.5	3.1	6.3	78.6	71.4
Nev.....	5.9	14.0	13.8	14.2	1.6	3.6	3.6	3.7	15.7	15.0	89.3	79.9
Pac.	233.1	258.7	264.4	273.0	48.8	57.4	61.1	64.0	2.7	4.6	45.7	48.9
Wash.....	73.0	91.2	93.5	103.3	13.0	15.8	17.1	18.5	3.2	6.1	10.0	13.6
Oreg.....	30.4	36.4	35.0	37.9	5.7	6.7	7.8	7.9	3.7	5.6	28.5	43.7
Calif.....	123.7	123.0	127.2	122.5	28.6	32.9	34.0	35.3	- .2	3.6	79.8	68.3
Alaska.....	1.5	2.2	2.5	2.8	.4	.7	.7	1.0	11.0	15.0	3.2	4.7
Hawaii.....	4.4	5.9	6.2	6.5	1.1	1.4	1.4	1.4	6.7	4.3	100.0	86.7

- Represents zero.

Source: U.S. Federal Power Commission, *Electric Power Statistics*, monthly.

No. 993. CONSUMPTION OF FUELS BY ELECTRIC UTILITIES: 1950 TO 1976

[Prior to 1965, excludes Alaska and Hawaii. Includes use of fuels for stand-by purposes. See also *Historical Statistics, Colonial Times to 1970*, series S 95-107]

ITEM	1950	1955	1960	1965	1970	1973	1974	1975	1976
Net generation by fuel ¹.....bil. kWh.....	233	434	607	861	1,244	1,588	1,566	1,618	1,753
Annual percent change ²	10.3	13.3	6.9	7.2	7.6	8.5	-1.4	3.3	8.3
Coal.....bil. kWh.....	(NA)	301	403	571	675	849	830	853	944
Percent of total.....	(NA)	69.4	66.4	66.3	54.3	53.5	53.0	52.7	53.9
Fuel oil.....bil. kWh.....	(NA)	37	46	65	179	313	299	289	320
Gas.....bil. kWh.....	(NA)	95	158	221	367	341	320	300	294
Nuclear.....bil. kWh.....	(NA)	(NA)	1	4	22	83	114	173	191
Fuel consumed:									
Total coal equivalent.....mil. sh. tons.....	138	207	266	369	592	729	740	770	832
Coal, including lignite.....mil. sh. tons.....	92	144	177	245	321	390	392	406	448
Oil.....mil. (42-gal.) bbl.....	75	75	85	115	336	560	536	506	555
Gas.....bil. cu. ft.....	629	1,153	1,724	2,321	3,932	3,659	3,443	3,158	3,078

NA Not available. ¹ Beginning 1965, includes limited output of wood, waste, and geothermal power. ² Represents average for period of intervals shown here; for 1950, change from 1945.

Source: U.S. Federal Power Commission, *Electric Power Statistics*, and press releases.

No. 994. PRIVATELY-OWNED ELECTRIC UTILITY GENERATING PLANTS—NUMBER AND CAPACITY, BY TYPE AND SIZE OF PLANT: 1970 TO 1975

[Capacity as of Dec. 31. See also *Historical Statistics, Colonial Times to 1970*, series S 58-73]

TYPE AND SIZE OF PLANT	NUMBER					CAPACITY (mil. kilowatts)				
	1970	1972	1973	1974	1975	1970	1972	1973	1974	1975
Total	1,923	1,984	2,044	2,030	1,978	259.7	312.1	345.5	375.3	394.0
Steam plants.....	661	661	676	647	631	220.5	256.1	276.8	292.0	306.5
Under 100,000 kW.....	219	203	197	175	154	8.4	7.5	7.4	6.8	6.3
100,000-500,000 kW.....	287	273	276	267	255	74.3	71.2	71.1	71.9	67.6
Over 500,000 kW.....	155	185	203	205	222	137.9	177.3	198.3	213.3	232.7
Nuclear plants.....	13	21	25	32	35	5.6	13.1	19.7	28.6	31.6
Hydraulic plants.....	702	695	700	695	653	18.6	18.9	21.5	22.6	21.8
Under 25,001 kW.....	539	529	531	525	498	3.1	3.0	3.0	3.0	2.8
25,001 kW and over.....	163	166	169	170	155	15.6	15.9	18.5	19.6	18.9
Gas turbine plants.....	235	295	324	344	369	12.4	21.6	24.3	29.0	31.1
Internal combustion.....	312	312	319	312	290	2.4	2.3	3.1	3.1	3.0
5,000 kW and over.....	89	105	112	109	111	2.0	1.9	2.7	2.7	2.7

Source: U.S. Federal Power Commission, *Statistics of Privately Owned Electric Utilities in the United States*, annual.

No. 995. PUBLICLY-OWNED ELECTRIC UTILITY PLANTS—NUMBER AND INSTALLED GENERATING CAPACITY, BY TYPE AND SIZE OF PLANT: 1970 TO 1976

[Capacity as of Dec. 31]

TYPE AND SIZE OF PLANT	NUMBER						CAPACITY (mil. kilowatts)					
	1970	1972	1973	1974	1975	1976	1970	1972	1973	1974	1975	1976
Total	1,496	1,506	1,580	1,554	1,551	1,547	78.8	84.4	94.0	100.3	109.3	115.6
Steam, conventional.....	326	325	328	323	326	319	37.7	40.3	44.8	47.6	49.6	52.0
Under 100,000 kW.....	254	246	244	234	234	222	6.9	7.0	7.3	7.0	6.9	6.7
100,000-500,000 kW.....	58	62	65	65	67	70	12.3	13.0	14.0	14.1	14.8	15.7
Over 500,000 kW.....	14	17	19	24	25	27	18.5	20.2	23.5	26.5	27.9	29.6
Steam, nuclear.....	1	2	3	7	10	11	.8	.9	1.3	3.4	6.2	7.5
Over 500,000 kW.....	1	1	1	3	4	6	.8	.8	.8	2.8	4.9	6.6
Hydro.....	434	427	430	425	426	422	36.3	37.3	40.2	40.9	42.8	44.7
Over 25,000 kW.....	164	169	178	179	184	184	35.1	36.1	39.1	39.7	41.7	43.5
Gas turbine.....	58	80	100	107	114	126	1.1	2.8	4.1	4.8	7.1	7.7
Over 25,000 kW.....	12	27	35	41	46	54	.4	2.0	3.1	3.8	6.0	6.6
Internal combustion.....	677	672	719	692	675	669	3.0	3.2	3.6	3.6	3.6	3.6
Under 5,000 kW.....	471	445	457	435	416	412	1.0	1.0	.9	.9	.8	.8
Over 5,000 kW.....	206	227	262	257	259	257	2.0	2.3	2.7	2.7	2.8	2.8

Source: U.S. Federal Power Commission, *Electric Power Statistics*, annual, and press releases.

No. 996. ELECTRIC UTILITIES—BALANCE SHEET AND INCOME ACCOUNT OF PRIVATELY-OWNED COMPANIES: 1960 TO 1975

[In millions of dollars. As of Dec. 31. On the basis of both assets and revenues, these classes (A and B utilities) comprise nearly 100 percent of the privately-owned sector of the electric light and power industry. See also *Historical Statistics, Colonial Times to 1970*, series S 133-146 and V 197-212]

ITEM	1960	1965	1970	1971	1972	1973	1974	1975
COMPOSITE BALANCE SHEET								
Assets and other debits	44,742	56,395	87,417	98,174	110,601	124,849	142,990	157,104
Electric utility plant ¹	45,456	59,703	93,303	104,300	116,644	130,840	146,007	160,711
Depreciation and amortization.....	8,889	13,631	20,253	22,000	23,864	26,227	28,370	31,891
Net electric utility plant.....	36,567	46,072	73,050	82,294	92,780	104,613	117,137	128,820
Other utility plant.....	4,852	6,613	8,974	9,536	10,234	10,799	11,281	11,673
Depreciation and amortization.....	963	1,418	2,095	2,268	2,445	2,620	2,865	3,107
Net other utility plant.....	3,889	5,195	6,879	7,268	7,789	8,179	8,416	8,566
Total utility plant.....	50,308	66,315	102,277	113,836	126,878	141,639	157,288	172,384
Depreciation and amortization.....	9,852	15,048	22,348	24,274	26,309	28,847	31,795	34,998
Net total utility plant.....	40,456	51,267	79,929	89,562	100,569	112,792	125,553	137,386
Other property and investments.....	1,004	1,247	1,742	2,245	2,507	3,412	4,014	4,498
Current and accrued assets.....	3,066	3,639	5,321	5,887	6,936	7,705	11,873	13,530
Deferred debits.....	216	242	425	480	589	940	1,500	1,691
Liabilities and other credits	44,742	56,395	87,417	98,174	110,601	124,849	142,990	157,104
Capital stock.....	13,322	15,668	20,782	23,919	27,463	30,836	33,984	37,773
Other paid-in capital.....	1,747	2,622	4,400	5,422	6,769	8,048	9,419	11,531
Retained earnings.....	3,736	5,712	9,363	10,129	11,295	12,396	13,299	14,668
Subsidiary earnings ²	(NA)	(NA)	(NA)	(NA)	(NA)	394	485	602
Long-term debt.....	21,035	25,502	41,937	46,708	51,553	56,673	64,499	70,820
Current and accrued liabilities.....	3,112	4,222	7,309	7,918	8,752	10,963	15,240	13,655
Deferred credits and operating reserves.....	277	540	945	1,096	1,349	1,540	1,855	2,689
Contributions in aid of construction.....	188	294	483	557	626	652	(X)	(X)
Accumulated deferred income taxes.....	1,325	1,829	2,198	2,424	2,794	3,347	4,209	5,368
COMPOSITE INCOME ACCOUNTS								
Electric operating revenues.....	10,116	13,400	19,791	22,322	25,354	29,104	37,225	44,598
Electric operating expenses.....	7,917	10,296	15,310	17,353	19,715	22,677	30,134	36,075
Net electric operating revenues.....	2,199	3,104	4,481	4,969	5,639	6,427	7,091	8,523
Electric utility operating income.....	2,201	3,107	4,481	4,969	5,639	6,427	7,091	8,523
Other utility operating income.....	193	304	404	433	460	433	495	522
Total utility operating income.....	2,397	3,409	4,885	5,402	6,099	6,860	7,586	9,045
Other income.....	178	191	774	1,001	1,303	1,571	1,992	2,208
Total income.....	2,875	3,600	5,659	6,403	7,403	8,431	9,578	11,253
Income deductions.....	792	1,019	2,251	2,608	2,987	3,500	4,454	5,091
Net income ³	1,783	2,581	3,408	3,852	4,422	5,041	5,470	6,234

NA Not available. X Not applicable. ¹ Includes construction work in progress.

² Unappropriated undistributed. ³ Beginning 1971, includes net extraordinary income.

Source: U.S. Federal Power Commission, *Statistics of Privately Owned Electric Utilities in the United States*.

No. 997. LARGEST PUBLIC UTILITY COMPANIES—ASSETS, REVENUES, INCOME, AND STOCKHOLDERS' EQUITY, BY RANK OF ASSETS: 1970 AND 1976

[In millions of dollars, except percent. Excludes telephone and telegraph companies. As of Dec. 31 or calendar year, as applicable]

ASSET GROUP	1970				1976			
	Assets ¹	Operating revenues ²	Net income	Stockholders' equity ³	Assets ¹	Operating revenues ²	Net income	Stockholders' equity ³
40 largest.....	73,787	21,349	2,640	26,244	137,259	49,327	5,260	50,720
Lowest ten.....	11,135	3,445	432	4,110	20,372	9,330	900	7,301
Second ten.....	13,944	4,489	505	4,911	24,383	8,898	954	9,036
Third ten.....	18,066	5,687	628	5,832	35,269	12,430	1,259	12,358
Highest ten.....	30,642	7,728	1,075	11,391	57,235	18,669	2,147	22,025
Percent of total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lowest ten.....	15.1	16.1	16.4	15.7	14.8	18.9	17.1	14.4
Second ten.....	18.9	21.0	19.1	18.7	17.8	18.0	18.1	17.8
Third ten.....	24.5	26.6	23.8	22.2	25.7	25.2	23.9	24.3
Highest ten.....	41.5	36.2	40.7	43.4	46.7	37.8	40.8	43.4

¹ Total assets employed in business, net of depreciation; includes consolidated subsidiaries. ² Gross receipts from operations during year; includes nonutility revenues from manufacturing, transportation, etc.

³ Capital stock, surplus, and retained earnings (i.e., net worth).

Source: Fortune, New York, N.Y., adapted from *The Fortune Directory*. (Copyright by Time, Inc.)

NO. 998. ELECTRIC LIGHT AND POWER INDUSTRY—ENERGY GENERATED, SALES, REVENUE, AND CUSTOMERS: 1950 TO 1976

[Prior to 1960, excludes Alaska and Hawaii]

CLASS	1950	1955	1960	1965	1970	1972	1973	1974	1975	1976
Energy generated ¹ bil. kWh.....	329	547	753	1,055	1,532	1,747	1,856	1,867	1,918	2,037
Sales to ultimate customers ² bil. kWh.....	281	481	683	953	1,391	1,578	1,703	1,701	1,733	1,850
Residential or domestic..... bil. kWh.....	70	125	196	281	448	511	554	555	586	613
Percent of total.....	25.0	26.1	28.7	29.5	32.2	32.4	32.5	32.6	33.8	33.2
Commercial and industrial:										
Small light and power..... bil. kWh.....	52	78	115	202	313	362	397	393	418	441
Large light and power..... bil. kWh.....	142	258	345	433	573	639	687	689	662	725
Revenue from ultimate customers ² bil. dol.....	5.1	8.0	11.5	15.2	22.1	27.9	31.7	39.1	46.9	53.5
Residential or domestic..... bil. dol.....	2.0	3.3	4.9	6.3	9.4	11.7	13.2	15.7	18.8	21.1
Percent of total.....	39.7	41.4	42.2	41.8	42.7	42.0	41.6	40.1	40.1	39.6
Commercial and industrial:										
Small light and power..... bil. dol.....	1.4	1.9	2.8	4.3	6.3	8.0	9.1	11.2	13.5	15.2
Large light and power..... bil. dol.....	1.4	2.4	3.3	3.9	5.4	7.0	8.1	10.7	12.7	15.0
Ultimate customers, Dec. 31 ² millions.....	45.0	52.6	58.9	65.6	72.5	76.2	78.5	80.1	81.8	83.6
Residential or domestic..... millions.....	38.9	45.8	51.4	57.6	64.0	67.3	69.4	71.0	72.6	74.2
Commercial and industrial:										
Small light and power..... millions.....	5.6	6.2	6.8	7.4	7.9	8.2	8.4	8.5	8.6	8.8
Large light and power..... millions.....	.3	.4	.5	.7	.4	.4	.4	.4	.4	.4
Avg. kWh used per customer..... 1,000.....	6.4	9.3	11.7	14.7	19.4	21.0	22.0	21.4	21.4	22.4
Residential..... 1,000.....	1.8	2.8	3.9	4.9	7.1	7.7	8.1	7.9	8.2	8.4
Commercial, small light and power..... 1,000.....	9.3	12.7	17.0	27.4	40.0	44.5	47.6	46.0	49.0	60.7
Avg. annual bill per customer..... dol.....	115	155	198	234	308	371	408	493	578	646
Residential..... dol.....	53	73	95	111	148	170	192	224	262	288
Commercial, small light and power..... dol.....	245	316	418	584	803	988	1,094	1,327	1,582	1,755
Avg. revenue per kWh sold..... cents.....	1.81	1.67	1.69	1.59	1.59	1.77	1.86	2.30	2.70	2.89
Residential..... cents.....	2.88	2.65	2.47	2.25	2.10	2.29	2.38	2.83	3.21	3.45
Commercial and industrial:										
Small light and power..... cents.....	2.63	2.50	2.46	2.13	2.01	2.22	2.30	2.85	3.23	3.46
Large light and power..... cents.....	1.02	.94	.97	.90	.95	1.09	1.17	1.55	1.92	2.07

¹ Source: U.S. Federal Power Commission. ² Includes other types not shown separately.

Source: Except as noted, Edison Electric Institute, New York, N.Y., *Statistical Year Book*.

NO. 999. ELECTRIC ENERGY SALES, BY CLASS OF SERVICE, AND BY STATES: 1975

[In billions of kilowatthours]

STATE	Total ¹	Residential	Commercial	Industrial	STATE	Total ¹	Residential	Commercial	Industrial
Total.....	1,736.2	611.1	408.7	655.6	S.A.—Con.				
N.E.....	67.2	26.6	20.4	18.7	W. Va.....	17.4	5.0	2.9	9.3
Maine.....	6.5	2.5	1.1	2.6	N. C.....	51.3	19.4	12.0	18.6
N. H.....	4.8	2.1	.8	1.8	S. C.....	29.6	9.8	5.5	13.8
Vt.....	3.2	1.5	.6	.9	Ga.....	39.7	15.5	10.7	13.1
Mass.....	29.6	11.2	10.6	7.3	Fla.....	72.1	35.5	23.3	10.8
R. I.....	4.5	1.7	1.4	1.2	E. S. C.....	167.2	55.1	21.4	86.5
Conn.....	18.6	7.6	5.9	4.9	Ky.....	43.0	9.2	4.3	27.9
M.A.....	227.4	72.0	59.3	84.6	Tenn.....	62.2	20.7	7.3	33.1
N. Y.....	96.1	29.0	30.4	27.5	Ala.....	42.4	15.5	6.3	19.8
N. J.....	43.7	14.6	13.8	14.8	Miss.....	19.6	9.7	3.5	5.7
Pa.....	87.6	28.4	15.1	42.3	W. S. C.....	212.0	77.3	48.1	79.6
E.N. C.....	338.7	109.8	71.0	145.3	Ark.....	15.5	6.7	3.3	5.1
Ohio.....	105.3	29.3	18.8	53.9	La.....	40.8	13.0	9.2	15.7
Ind.....	48.9	18.0	9.0	21.9	Oka.....	24.7	11.4	5.4	6.9
Ill.....	88.7	29.3	22.3	31.2	Tex.....	131.0	46.2	30.2	51.9
Mich.....	65.0	21.0	13.2	28.2	Mt.....	85.6	27.6	24.3	30.2
Wis.....	30.8	12.2	7.7	10.1	Mont.....	8.6	2.0	1.3	5.1
W.N. C.....	115.4	48.7	24.5	38.6	Idaho.....	13.0	3.8	2.9	6.3
Minn.....	25.5	10.7	3.7	10.8	Wyo.....	4.5	.9	.8	2.8
Iowa.....	20.7	8.6	4.4	7.2	Colo.....	15.9	5.8	6.0	3.5
Mo.....	31.8	13.1	6.4	11.0	N. Mex.....	7.3	2.2	2.5	2.1
N. Dak.....	4.0	1.9	.7	1.2	Ariz.....	20.8	7.3	6.0	6.3
S. Dak.....	3.7	2.1	1.1	.4	Utah.....	7.8	2.7	2.2	2.5
Neb.....	11.9	5.0	3.3	2.7	Nev.....	7.7	2.9	2.6	1.8
Kans.....	17.8	7.3	4.9	5.3	Pac.....	235.4	80.8	63.9	83.6
S.A.....	287.3	113.2	75.8	88.5	Wash.....	60.4	20.9	9.1	28.6
Del.....	5.0	1.4	1.1	2.5	Oreg.....	32.1	12.5	9.0	10.3
Md. ²	32.6	10.8	9.6	11.7	Calif.....	135.3	44.6	43.9	42.0
Va.....	39.6	15.8	10.7	8.7	Alaska.....	2.2	1.1	.8	.2
					Hawaii.....	5.4	1.7	1.1	2.5

¹ Includes "Other" service, not shown separately. ² Includes District of Columbia.

Source: U.S. Federal Power Commission, *Annual Report*, and unpublished data.

NO. 1000. RURAL ELECTRIFICATION ADMINISTRATION—ELECTRIC PROGRAM, SUMMARY OF OPERATIONS: 1950 TO 1976

[Includes Virgin Islands and Puerto Rico. See also *Historical Statistics, Colonial Times to 1970*, series S 147-159]

ITEM	1950	1955	1960	1965	1970	1973	1974	1975	1976 ¹
Loans and guarantees approved, Dec. 31:²									
Borrowers ³	1,076	1,077	1,087	1,103	1,096	1,091	1,094	1,095	1,093
RE-A amount.....mil. dol.	2,312	3,125	4,266	5,793	7,496	8,945	9,674	10,440	11,180
Guaranteed amount.....mil. dol.	-	-	-	-	-	-	1,075	2,450	6,124
Non-RE-A amount.....mil. dol.	-	-	-	-	-	660	917	1,086	1,290
Systems in operation, Dec. 31:⁴									
Systems ⁵	1,007	1,026	1,038	1,052	1,050	1,046	1,047	1,050	1,048
Miles energized ⁶.....1,000.....	1,089	1,362	1,465	1,567	1,676	1,767	1,798	1,828	1,857
Consumers served.....1,000.....	3,413	4,251	4,826	5,541	6,442	7,457	7,768	8,018	8,312
Borrowers' operations during year:⁷									
Energy generated.....mil. kWh.....	1,077	3,255	4,922	8,834	23,814	32,045	32,795	33,463	38,660
Energy purchased.....mil. kWh.....	7,270	14,996	26,057	39,104	60,478	79,235	84,520	91,875	100,140
Energy sold.....mil. kWh.....	6,884	15,739	27,269	42,668	76,009	100,688	105,691	112,670	123,199
Revenue.....mil. dol.	229	420	615	847	1,309	1,913	2,316	2,972	3,556
Average monthly consumption per consumer, all consumers									
kWh.....	180	306	466	654	948	1,120	1,149	1,191	1,254
Residential consumers ⁸.....kWh.....	147	242	357	479	687	793	803	840	866
Total utility plant.....mil. dol.									
Employees.....	(NA)	2,706	3,697	4,979	7,175	9,043	10,109	11,845	14,031
	(NA)	(NA)	(NA)	31,702	37,013	41,422	42,908	43,629	44,655

- Represents zero. NA Not available. ¹ Preliminary, except loans approved. ² Cumulative net (excludes loans rescinded). ³ Organizations, mainly cooperatives, to which loans for extending central station electric service in rural areas are made. ⁴ Includes data at time of repayment of loan for borrowers whose loans have been repaid in full. As of Dec. 31, 1976, there were 66 such borrowers, with 25,498 miles energized and 144,206 consumers served. ⁵ Rural electric distribution, generation, and transmission systems operated by REA borrowers. ⁶ Pole miles of electric distribution and transmission line in service. ⁷ Excludes energy sales and revenues of power sold by one REA borrower to another. ⁸ Includes rural-nonfarm and farm consumers.

Source: U.S. Rural Electrification Administration, *Annual Statistical Report—Rural Electric Borrowers*.

NO. 1001. PRIVATELY-OWNED GAS UTILITY INDUSTRY—BALANCE SHEET AND INCOME ACCOUNT: 1960 TO 1976

[In millions of dollars. Excludes Alaska for 1960. The gas utility industry consists of pipeline and distribution companies. Excludes operations of companies distributing gas in bottles or tanks. See also *Historical Statistics, Colonial Times to 1970*, series S 205-218]

ITEM	1960	1965	1970	1972	1973	1974	1975	1976
COMPOSITE BALANCE SHEET								
Assets, total¹	20,000	25,640	34,929	39,909	43,867	46,607	50,286	55,261
Total utility plant.....	20,835	28,205	38,541	43,192	45,616	47,484	49,384	52,066
Depreciation and amortization.....	4,570	7,205	10,696	12,852	13,883	15,358	16,779	18,693
Utility plant (net).....	16,265	21,000	27,845	30,339	31,733	32,126	32,605	33,373
Investment and fund accounts ¹	1,380	1,885	3,024	4,654	6,696	7,539	9,198	10,870
Current and accrued assets.....	2,185	2,545	3,674	4,387	4,769	6,060	7,543	9,707
Deferred debits ²	170	210	386	629	670	882	940	1,305
Liabilities, total¹	20,000	25,640	34,929	39,909	43,867	46,607	50,286	55,261
Capitalization, total ¹	16,940	21,520	28,646	32,946	35,290	36,360	39,044	42,379
Capital stock ¹	7,810	10,005	12,965	15,121	17,123	17,942	19,600	21,593
Long-term debts.....	9,130	11,515	15,681	17,825	18,167	18,418	19,544	20,786
Current and accrued liabilities.....	2,420	3,035	4,332	5,063	6,162	7,765	8,158	9,063
Deferred income taxes ³	350	660	788	1,106	1,392	1,665	2,052	2,525
Other liabilities and credits.....	290	425	663	793	1,023	817	1,032	1,294
COMPOSITE INCOME ACCOUNT								
Operating revenues, total.....	8,696	11,525	16,380	19,739	20,585	24,195	30,550	37,818
Operating expenses ⁴	7,587	10,063	14,306	17,248	18,006	21,329	27,480	34,217
Operation and maintenance.....	5,951	7,973	11,636	14,582	14,582	17,450	22,957	28,949
Federal, State, and local taxes.....	1,058	1,292	1,569	2,034	2,043	2,291	2,763	3,363
Operating income.....	1,109	1,462	2,074	2,490	2,579	2,865	3,070	3,401
Utility operating income.....	1,137	1,593	2,159	2,598	2,708	3,012	3,221	3,542
Income before interest charges ¹	1,247	1,660	2,457	2,953	3,315	3,856	4,137	4,645
Net income ¹	830	1,107	1,427	1,792	1,977	2,303	2,502	2,877
Dividends.....	581	781	1,006	1,132	1,335	1,363	1,509	1,733

¹ Beginning 1973, not comparable with earlier years due to Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.

² Includes capital stock discount and expense and reacquired securities. Beginning 1960, reacquired securities are deducted from the appropriate capital account. ³ Includes reserves for deferred income taxes and accumulated deferred income taxes. ⁴ Includes expenses not shown separately.

Source: American Gas Association, Arlington, Va., *Gas Facts*, annual. (Copyright.)

No. 1002. GAS UTILITY INDUSTRY—SUMMARY: 1950 TO 1976

[Excludes Hawaii through 1955 and Alaska through 1960. Covers natural, manufactured, mixed, and liquid petroleum gas. Based on questionnaire mailed to all privately owned gas utilities and municipally owned gas departments in the United States, except those with annual revenues less than \$25,000, which, in the aggregate, account for only a negligible portion of the industry. See also *Historical Statistics, Colonial Times to 1970*, series S 190-204]

ITEM	1950	1955	1960	1965	1970	1973	1974	1975	1976
Customers (annual avg.)—1,000—	24,001	28,479	33,054	37,338	41,482	43,711	44,267	44,555	44,931
Residential.....	22,146	26,283	30,418	34,341	38,097	40,116	40,628	40,950	41,328
Commercial.....	1,739	2,048	2,458	2,790	3,131	3,331	3,392	3,367	3,370
Other ¹	116	149	178	207	254	264	249	237	232
Sales².....trillion Btu³	4,209	6,659	9,288	11,980	16,044	16,480	16,000	14,863	14,813
Residential.....	1,384	2,239	3,188	3,999	4,923	4,994	4,865	4,991	5,012
Percent of total.....	32.9	33.6	34.3	33.4	30.7	30.3	30.4	33.6	33.8
Commercial.....	410	603	920	1,345	2,007	2,281	2,293	2,387	2,422
Industrial.....	2,289	3,535	4,710	6,146	8,439	8,371	8,153	6,837	7,109
Other.....	126	282	470	490	674	835	689	648	270
Revenues².....mil. dol.	1,948	3,450	5,617	7,407	10,283	12,987	15,242	19,101	23,696
Residential.....	1,177	2,007	3,177	4,030	5,207	6,247	6,890	8,445	9,938
Percent of total.....	60.4	58.2	56.6	54.4	50.6	48.1	44.9	44.2	41.9
Commercial.....	266	424	723	1,054	1,620	2,172	2,539	3,302	4,074
Industrial.....	480	938	1,563	2,148	3,181	4,197	5,391	6,745	9,374
Other.....	26	81	153	176	274	371	413	608	310
Gas mains mileage.....1,000—	387	497	631	768	913	963	974	980	987
Field and gathering.....	33	46	56	62	66	66	66	68	70
Transmission.....	113	146	184	211	252	263	262	263	258
Distribution.....	242	305	391	495	595	634	646	649	659
Construction expend.....mil. dol.	1,198	1,345	1,845	1,935	2,506	2,966	2,965	2,466	4,425
Transmission.....	716	593	848	770	1,019	1,746	632	590	4,531
Distribution.....	299	500	696	824	913	1,094	1,097	910	4,926
Production and storage.....	144	198	216	225	370	972	1,060	831	4,828
General.....	39	54	85	116	205	155	176	136	4,140

¹ Includes industrial. ² Excludes sales for resale. ³ For definition, see headnote, table 976. ⁴ Preliminary.

No. 1003. GAS UTILITY INDUSTRY—PRICES, BY CLASS OF SERVICE, AND STATES: 1970 TO 1976

[In dollars per million Btu. For definition of Btu, see headnote, table 976. Excludes sales for resale]

REGION AND STATE	1970	1975	1976				REGION AND STATE	1970	1975	1976				
			Total ¹	Residential	Commercial	Industrial				Total ¹	Residential	Commercial	Industrial	
U.S.....	.64	1.29	1.60	1.98	1.68	1.32	S.A.—Con.							
							W. Va.....	.64	1.24	1.49	1.70	1.52	1.31	1.63
N.E.....	1.60	2.87	3.31	3.70	3.16	2.48	N.C.....	.70	1.58	1.92	2.23	2.11	1.63	
Maine.....	2.23	3.04	3.34	4.58	3.25	2.45	S.C.....	.62	1.10	1.38	2.30	1.57	1.10	
N.H.....	1.54	2.21	2.53	2.76	2.52	2.20	Ga.....	.57	1.12	1.40	1.96	1.35	1.06	
N.J.....	2.22	2.06	2.38	3.35	2.99	1.28	Fla.....	.55	1.15	1.45	2.79	1.67	1.05	
Vt.....	1.64	2.91	3.32	3.66	3.15	2.49	E.S.C.....	.51	1.03	1.26	1.61	1.39	1.03	
Mass.....	1.36	2.82	3.34	3.77	3.44	2.39	Ky.....	.67	1.11	1.32	1.49	1.36	1.06	
R.I.....	1.36	2.82	3.34	3.77	3.44	2.39	Tenn.....	.53	1.00	1.23	1.49	1.44	1.06	
Conn.....	1.60	2.93	3.40	3.89	3.20	2.63	Ala.....	.52	1.04	1.25	1.88	1.40	.98	
M.A.....	1.06	1.97	2.30	2.64	2.30	1.69	Miss.....	.38	.95	1.24	1.64	1.34	1.07	
N.Y.....	1.21	2.14	2.47	2.81	2.28	1.78	W.S.C.....	.35	.99	1.39	1.77	1.50	1.33	
N.J.....	1.28	2.31	2.89	3.16	2.91	2.11	Ark.....	.37	.80	.95	1.24	1.04	.82	
Pa.....	.87	1.68	1.93	2.19	2.01	1.57	La.....	.30	.85	1.13	1.54	1.19	1.05	
E.N.C.....	.74	1.34	1.63	1.83	1.65	1.39	Okla.....	.46	.79	1.09	1.42	1.14	1.01	
Ohio.....	.73	1.35	1.64	1.79	1.63	1.43	Tex.....	.35	1.10	1.57	2.04	1.78	1.52	
Ind.....	.71	1.16	1.38	1.71	1.50	1.09	Mt.....	.49	.99	1.21	1.57	1.28	.98	
Ill.....	.73	1.35	1.61	1.82	1.55	1.39	Mont.....	.54	1.03	1.34	1.50	1.30	1.24	
Mich.....	.78	1.43	1.74	1.88	1.80	1.54	Idaho.....	.67	1.48	1.88	2.69	2.13	1.54	
Wis.....	.80	1.31	1.70	2.08	1.78	1.40	Wyo.....	.34	.70	.96	1.27	1.05	.80	
W.N.C.....	.56	1.00	1.21	1.56	1.29	.93	Colo.....	.48	.90	1.07	1.32	1.16	.79	
Minn.....	.67	1.19	1.39	1.73	1.51	1.08	N. Mex.....	.42	.88	1.09	1.59	1.29	.92	
Iowa.....	.62	1.04	1.26	1.60	1.33	1.01	Ariz.....	.57	1.19	1.33	2.14	1.44	.95	
Mo.....	.54	1.18	1.37	1.68	1.38	.92	Utah.....	.46	.85	1.11	1.45	.87	.91	
N. Dak.....	.82	1.26	1.53	1.79	1.30	1.54	Nev.....	.58	1.30	1.55	1.78	1.77	1.40	
S. Dak.....	.71	1.05	1.22	1.53	1.18	.87	Pac.....	.58	1.31	1.63	1.78	1.63	1.54	
Nebr.....	.51	.90	1.13	1.45	1.23	.87	Wash.....	.65	1.55	1.99	2.59	2.16	1.67	
Kans.....	.39	.69	.94	1.21	.94	.84	Oreg.....	.74	1.80	2.21	2.90	2.58	1.81	
S.A.....	.72	1.39	1.69	2.25	1.78	1.25	Calif.....	.56	1.26	1.57	1.68	1.46	1.51	
Del.....	.93	1.73	2.08	2.66	2.27	1.53	Alaska.....	.70	.81	.94	1.72	1.27	.59	
Md.....	1.13	1.97	2.20	2.56	2.23	1.62	Hawaii.....	2.76	6.78	6.78	8.08	6.39	6.34	
D.C.....	1.28	2.21	2.40	2.62	2.18	1.68								
Va.....	.95	1.78	2.05	2.53	2.07	1.46								

¹ Includes "other" service, not shown separately.
Source of tables 1002 and 1003: American Gas Association, Arlington, Va., *Gas Facts*, annual. (Copyright.)

No. 1004. GAS UTILITY INDUSTRY—CUSTOMERS, SALES, AND REVENUES, BY CLASS OF SERVICE, AND STATES: 1976

[See headnote, table 1002]

REGION AND STATE	CUSTOMERS ¹ (1,000)				SALES ² (trillion Btu ⁴)				REVENUES ³ (mil. dol.)			
	Total ²	Residential	Commercial	Industrial	Total ²	Residential	Commercial	Industrial	Total ²	Residential	Commercial	Industrial
U.S.-----	44,931	41,328	3,370	180	14,813	5,012	2,422	7,109	23,696	9,939	4,074	9,374
N.E.-----	1,684	1,557	112	11	264	143	64	55	874	528	201	136
Maine-----	18	16	1	(2)	2	1	1	1	7	3	2	2
N.H.-----	46	42	4	(2)	8	4	2	2	21	11	5	5
Vt.-----	17	15	1	(2)	4	1	1	1	81	51	14	15
Mass.-----	1,052	977	66	7	160	90	40	28	532	330	125	70
R.I.-----	161	150	10	2	24	14	4	6	9	5	2	2
Conn.-----	390	358	30	2	66	33	17	17	225	128	53	43
M.A.-----	8,147	7,559	550	25	1,563	810	295	427	3,599	2,141	678	722
N.Y.-----	3,996	3,745	227	13	608	350	117	120	1,500	985	264	212
N.J.-----	1,824	1,638	180	6	266	150	61	54	768	475	178	114
Pa.-----	2,327	2,176	143	6	689	310	117	253	1,330	681	235	396
E.N.C.-----	10,314	9,506	757	47	3,851	1,603	779	1,456	6,274	2,940	1,285	2,027
Ohio-----	2,756	2,551	196	6	973	448	180	336	1,593	804	294	482
Ind.-----	1,196	1,091	100	4	455	167	70	217	628	285	105	236
Ill.-----	3,153	2,917	223	18	1,138	494	245	399	1,831	896	380	555
Mich.-----	2,244	2,070	165	9	926	367	223	336	1,612	690	401	519
Wis.-----	959	877	73	9	359	128	60	168	609	265	105	235
W.N.C.-----	3,856	3,487	349	18	1,507	513	288	690	1,829	802	371	643
Minn.-----	727	661	59	7	274	105	46	120	382	182	69	130
Iowa.-----	703	625	75	2	288	94	58	131	363	150	77	132
Mo.-----	1,167	1,080	85	1	330	150	80	98	451	249	111	90
N. Dak.-----	75	66	9	(2)	24	10	11	2	37	18	15	3
S. Dak.-----	95	84	10	1	30	12	8	10	36	18	10	8
Nebr.-----	411	355	54	2	167	53	38	76	189	77	47	66
Kans.-----	679	616	57	5	395	90	46	254	371	109	43	215
S.A.-----	3,897	3,563	306	17	1,055	356	199	474	1,783	799	356	591
Del.-----	82	77	5	(2)	20	8	3	8	41	21	7	12
Md.-----	774	719	48	5	148	74	25	45	326	190	57	73
D.C.-----	153	136	10	(2)	27	14	11	11	65	37	24	(2)
Va.-----	526	480	42	2	123	50	29	39	253	128	60	57
W. Va.-----	396	363	32	(2)	150	55	25	68	224	95	38	89
N.C.-----	342	298	37	2	96	30	19	45	184	68	40	73
S.C.-----	286	258	26	1	113	21	16	71	156	48	25	78
Ga.-----	927	854	63	5	265	86	42	134	372	169	57	143
Fla.-----	410	378	31	1	112	16	28	64	163	45	47	67
E.S.C.-----	2,149	1,945	188	7	743	216	112	399	933	348	156	412
Ky.-----	627	573	52	1	180	81	35	87	237	121	47	61
Tenn.-----	494	430	56	3	201	47	36	116	247	70	52	122
Ala.-----	644	598	43	2	225	56	25	144	281	105	35	140
Miss.-----	383	345	36	1	137	32	16	82	169	52	22	88
W.S.C.-----	5,193	4,725	433	29	3,033	451	245	2,206	4,219	797	368	2,934
Ark.-----	466	413	51	2	210	47	31	130	199	59	32	106
La.-----	943	877	64	2	461	76	29	341	521	117	34	357
Okla.-----	754	690	70	4	437	74	44	317	476	105	50	319
Tex.-----	3,029	2,756	249	21	1,925	253	141	1,417	3,023	516	251	2,151
Mt.-----	2,394	2,158	222	10	899	256	171	449	1,087	402	220	442
Mont.-----	176	157	19	1	71	24	16	28	95	36	21	35
Idaho.-----	109	95	14	(2)	49	10	10	29	92	26	21	45
Wyo.-----	103	91	12	(2)	55	14	11	30	53	17	11	24
Colo.-----	727	646	79	2	258	89	66	102	275	117	76	80
N. Mex.-----	289	254	28	4	153	30	16	93	166	47	21	88
Ariz.-----	561	515	43	3	142	35	23	80	188	74	34	78
Utah.-----	310	287	22	1	114	44	18	52	127	64	16	47
Nev.-----	119	113	5	(2)	59	11	12	35	91	20	21	49
Pac.-----	7,297	6,827	454	16	1,897	665	271	953	3,097	1,181	440	1,466
Wash.-----	349	307	41	1	159	37	35	86	316	95	78	145
Oreg.-----	251	221	29	1	87	22	15	50	192	63	37	91
Calif.-----	6,632	6,243	377	12	1,613	600	214	802	2,536	1,006	313	1,212
Alaska.-----	31	27	4	(2)	31	6	7	13	29	10	8	8
Hawaii.-----	34	30	3	2	4	1	1	2	24	7	6	11

Z Less than 500.

¹ Averages for the year. ² Includes "other" service, not shown separately.

³ Excludes sales for resale. ⁴ For definition, see headnote, table 976.

Source: American Gas Association, Arlington, Va., *Gas Facts*, annual. (Copyright.)

No. 1005. WATER POWER—DEVELOPED AND ESTIMATED UNDEVELOPED, BY GEOGRAPHIC DIVISION: 1950 TO 1975

[In millions of kilowatts. As of Dec. 31, 1950, excludes Alaska and Hawaii. For composition of divisions, see fig. I, inside front cover. See also *Historical Statistics, Colonial Times to 1970*, series S 160-175]

DIVISION	DEVELOPED ¹						UNDEVELOPED					
	1950	1960	1965	1970	1974	1975	1950	1960	1965	1970	1974	1975
United States....	18.7	33.2	44.5	52.0	55.4	57.0	87.6	114.2	124.1	128.0	118.5	113.7
New England.....	1.2	1.5	1.5	1.5	1.5	1.5	3.3	2.9	3.2	3.3	3.2	3.3
Middle Atlantic....	1.7	2.5	4.8	4.3	4.2	4.2	6.6	7.6	5.0	4.5	4.3	4.3
E. No. Central.....	.9	.9	.9	.9	.9	.9	2.3	3.0	1.4	1.6	1.4	1.4
W. No. Central.....	.6	1.6	3.0	2.7	2.8	2.8	5.8	6.4	4.1	4.4	6.0	2.1
South Atlantic....	2.8	3.8	5.2	5.3	5.7	5.8	8.2	8.4	10.0	9.6	9.3	8.4
E. So. Central....	2.7	3.8	4.5	5.2	5.4	5.5	4.7	4.6	4.3	3.8	3.2	3.1
W. So. Central....	.5	.9	1.7	1.9	2.3	2.3	3.6	3.9	3.1	3.3	2.8	2.7
Mountain.....	2.3	4.6	5.6	6.2	6.7	6.9	23.4	23.6	26.5	26.7	21.8	19.6
Pacific.....	6.0	13.6	17.4	23.9	26.0	27.2	29.8	53.8	66.5	70.9	66.4	68.8

¹ Capacity as shown by nameplate ratings at existing plants of electric utilities and industries as of Dec. 31. Excludes installed capacity at pumped storage projects, which totaled 9,736 megawatts in 1975.

Source: U.S. Federal Power Commission, *Hydroelectric Power Resources of the United States, Developed and Undeveloped, January 1, 1976*.

No. 1006. NUCLEAR POWER PLANT CAPACITY, 1965 TO 1977, AND PROJECTIONS, 1980 AND 1985

[In net megawatts, except percent]

ITEM	1965	1970	1972	1973	1974	1975	1976	1977	1980, est.	1985, est.
Existing capacity, yearend	926	6,493	15,300	21,118	31,662	38,943	42,919	47,000	61,000	(NA)
Percent of total electric utility capacity.....	.4	1.9	3.8	4.8	6.6	7.7	8.1	8.6	10.2	(NA)
Nuclear capacity added and ordered during year.....	5,153	24,812	47,855	59,902	68,088	20,482	16,567	(NA)	(NA)	(NA)
In commercial operation	87	1,726	5,546	5,277	10,360	9,336	2,627	8,702	12,441	15,041
Construction initiated..	625	8,814	6,578	15,126	22,097	7,046	10,220	(NA)	(NA)	(NA)
On order ¹	4,441	14,272	35,731	39,499	35,631	4,100	3,720	(NA)	(NA)	(NA)

NA Not available. ¹ From manufacturers.

Source: U.S. Energy Research and Development Administration, *Status of Central Station Nuclear Power Reactors—Significant Milestones (ERDA-80)*.

No. 1007. COMMERCIAL NUCLEAR POWER GENERATION, BY COUNTRY: 1970 TO 1976

[Generation for calendar years; other data as of December. Excludes Communist countries]

COUNTRY	NUMBER OF REACTORS		GROSS ELECTRICITY GENERATED (bil. kWh)						GROSS CAPACITY (1,000 kW)				
	1970	1976	1970	1973	1974	1975	1976	1970	1973	1974	1975	1976	
	64	154	73.9	183.3	214.4	329.0	388.8	15,186	40,603	58,897	69,196	81,052	
United States....	15	60	23.2	82.2	98.0	181.8	201.6	5,211	20,887	33,659	39,399	44,083	
Argentina.....	—	1	—	—	1.0	2.5	2.6	—	—	340	340	340	
Belgium.....	1	3	.3	—	.1	6.8	10.0	11	—	410	1,744	1,744	
Canada.....	1	6	.9	19.0	15.4	13.2	18.0	220	2,380	2,380	2,380	3,130	
Great Britain....	27	31	26.5	28.0	33.0	30.5	36.8	4,783	6,168	6,168	6,135	7,455	
France.....	4	10	5.7	11.2	14.8	18.3	15.8	1,606	2,773	3,023	3,066	3,066	
Germany.....	4	10	5.3	12.6	11.2	21.7	24.5	907	2,239	2,240	3,452	6,413	
India.....	2	3	2.2	1.9	2.5	2.5	3.2	400	400	620	620	620	
Italy.....	3	3	3.3	3.1	3.4	3.8	3.8	631	635	626	639	630	
Japan.....	3	13	3.3	9.4	15.1	16.7	36.7	828	1,823	3,893	5,278	7,428	
Netherlands....	1	2	.4	1.0	3.3	3.3	3.9	55	535	535	523	523	
Pakistan.....	—	1	—	.5	.6	.5	.5	—	137	137	137	137	
Spain.....	1	3	.9	6.5	6.9	7.5	7.5	160	1,100	1,100	1,117	1,117	
Sweden.....	1	5	(2)	1.7	2.1	12.0	16.0	12	472	2,712	3,312	3,312	
Switzerland....	1	3	1.9	6.2	7.0	7.7	7.9	364	1,054	1,054	1,054	1,054	

— Represents zero. Z Less than 50,000,000 kWh.

Source: McGraw-Hill, Inc., New York, N.Y., *Nucleonics Week*, December issues. (Copyright.)

No. 1008. ENERGY RESEARCH AND DEVELOPMENT ADMINISTRATION—NUCLEAR REACTORS, URANIUM, RADIOISOTOPES, AND HEAVY WATER: 1965 TO 1976

[For years ending June 30, except as noted]

ITEM	1965	1969	1970	1971	1972	1973	1974	1975	1976
NUCLEAR REACTORS									
Electrical generation: ¹									
Capacity....net electrical megawatts...	926	3,980	6,493	8,687	15,300	21,118	31,662	38,943	42,919
Gross output...1,000 megawatt hours...	3,657	13,928	21,797	37,899	54,031	83,334	113,727	171,923	191,108
URANIUM									
Est. ore reserves ²									
1,000 tons of contained U ₃ O ₈ ...	145	204	243	275	273	277	200	³ 430	(NA)
Rated ore milling capacity ²									
1,000 tons per day...	12	26	28	28	32	30	28	32	34
RADIOISOTOPES									
Sales by ERDA.....\$1,000	1,601	1,122	1,266	1,211	998	871	800	767	925
Exports (domestic) ^{1,4}.....\$1,000	3,026	5,395	4,817	6,719	8,733	12,303	16,571	20,088	24,322
Imports ⁴.....\$1,000	2,818	4,697	3,471	5,671	4,443	5,537	7,565	8,297	12,208
HEAVY WATER									
Sales by ERDA.....tons	82	348	620	770	276	426	61 ¹	4 ¹	2
Value.....\$1,000	4,067	17,234	34,633	43,002	14,517	34,833	5,194	515	653
ENRICHED URANIUM									
Sales.....mil. dol.	(NA)	30.0	83.8	185.6	154.1	246.2	541.4	351.6	634.1

NA Not available. ¹ Calendar year data. ² As of December. ³ Reserves, at \$3/lb. through 1974, because of inflatable reserve is shown at \$15/lb. in 1975. ⁴ Source: U.S. Bureau of the Census, 1965, U.S. Exports of Radioactive and Stable Isotopes, FT 9523, and U.S. Imports of Radioactive Substances, FT 9066; thereafter, U.S. Exports, Schedule B Commodity and Country, FT 410, and U.S. Imports for Consumption and General Imports, TSUSA Commodity and Country, FT 246. Export figures include shipments made by ERDA and by commercial firms.

Source: Except as noted, Energy Research and Development Administration, *Financial Report*, annual, and unpublished data.

No. 1009. FEDERAL RESEARCH AND DEVELOPMENT OBLIGATIONS FOR ENERGY DEVELOPMENT AND CONVERSION, BY FUNCTION: 1969 TO 1977

[In millions of dollars, except as indicated. Through 1976, for years ending June 30; 1977, year ending Sept. 30. Excludes research and development plant. See table 1012 for Federal obligations for R and D. Minus sign (-) denotes decrease.]

FUNCTION	1969	1970	1971	1972	1973	1974	1975	1976	1977, est.
Total	327.9	317.3	323.6	382.7	441.6	605.1	1,109.7	1,387.6	2,390.4
Annual percent change.....	(NA)	-3.2	2.0	18.3	15.4	37.0	83.4	25.0	72.3
Nuclear	305.9	295.9	285.8	334.9	376.5	469.7	674.3	825.2	1,316.4
Percent of total.....	93.3	93.3	88.3	87.5	85.3	77.6	60.8	59.5	55.1
Liquid metal fast breeder reactor.....	209.0	194.3	195.6	234.0	256.7	289.6	399.0	347.9	541.9
Nuclear research applications.....								103.9	137.4
Magnetic fusion.....	26.5	27.7	28.3	31.0	37.0	53.0	97.9	130.2	183.0
Fuel cycle R and D.....	26.1	27.9	26.0	30.7	35.0	45.4	34.0	50.6	168.5
Uranium enrichment process.....	24.5	26.0	21.7	26.4	33.9	41.7	33.3	48.2	68.2
Reactor safety research.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	60.4	78.2	91.1
Laser fusion ²	(NA)	(NA)	(NA)	(NA)	(NA)	36.9	45.6	60.7	80.0
Fossil ¹	19.9	17.7	31.5	35.9	46.6	81.4	269.1	324.0	549.1
Coal utilization.....	15.2	12.6	25.6	29.7	49.1	70.2	229.7	284.6	464.0
Petroleum and natural gas.....	2.5	2.7	3.0	3.4	3.7	8.1	27.0	23.9	46.3
In situ technology ³	2.2	2.4	2.8	2.9	2.9	3.0	10.8	14.5	35.7
Solar, geothermal, and advance energy systems ¹	-	-	-	2.4	5.2	19.1	82.8	126.6	313.9
Solar energy development.....	-	-	-	1.7	4.0	12.0	54.7	95.9	260.6
Geothermal energy development.....	-	-	-	.7	1.1	7.1	28.0	30.7	53.3
Conservation ¹	2.1	2.4	4.3	8.0	10.3	24.2	64.4	85.8	179.6
End use conservation ⁴	-	.5	2.2	5.1	5.9	14.6	34.3	31.8	55.4
Electrical systems and storage.....	-	-	-	-	-	-	11.6	33.7	91.8
Other	-	1.3	2.0	1.4	3.0	10.8	19.1	26.0	31.3

- Represents zero. NA Not available.

¹ Includes other functions, not shown separately.

² Prior to 1974, included under national defense R and D and not shown separately.

³ Covers oil shale technology and coal gasification.

⁴ Includes technologies to improve efficiency.

Source: U.S. National Science Foundation, *An Analysis of Federal R & D Funding by Function, 1969-1978*.

Section 21

Science

This section presents statistics on scientific and technological resources, with emphasis on patterns of research and development funding and on scientific and technical manpower and education. Also included are statistics on space program outlays and accomplishments. Principal sources of these data are the National Science Foundation and the National Aeronautics and Space Administration.

The National Science Foundation gathers data chiefly through recurring statistical surveys. Some current Foundation publications containing data on funds for research and development and on scientific and engineering personnel include the occasional bulletin series, *Reviews of Data on Science Resources* and *Science Resources Studies Highlights*; and annual, biennial, and periodic reports such as *Federal Funds for Research, Development, and Other Scientific Activities*; *Research and Development in Industry*; *National Patterns of R & D Resources*; *Manpower Resources for Scientific Activities at Universities and Colleges*; *Expenditures for Scientific Activities at Universities and Colleges*; *An Analysis of Federal R & D Funding by Function*; *Scientists, Engineers, and Physicians From Abroad*; *Federal Scientific, Technical, and Health Personnel*; *Graduate Science Education: Student Support and Postdoctorals*; *Federal Support to Universities, Colleges, and Selected Nonprofit Institutions*; *Characteristics of Doctoral Scientists and Engineers in the U.S.*; *Characteristics of the National Sample of Scientists and Engineers*; and policy reports relating to national allocation of manpower and funds to science and technology. Statistical surveys in these areas pose particularly difficult problems of concept and definition and the data should, therefore, be regarded as broad estimates rather than precise quantitative statements. Detailed discussions of the scope and limitations of the data appear in the source publications.

The National Aeronautics and Space Administration's bimonthly *Satellite Situation Report* presents information on artificial satellites, including both objects in orbit and decayed objects.

Another source of statistics on scientific and technical activities is *The Budget of the United States Government*, which contains summary financial data on all Federal research and development programs.

Research and development outlays.—The National Science Foundation defines research as a "systematic and intensive study directed toward a fuller knowledge of the subject studied" and development as "the systematic use of scientific knowledge directed toward the production of useful materials, devices, systems, methods, or processes." National data on outlays of funds are composed of four sectors: (1) *Government*, made up primarily of Federal executive agencies; (2) *industry*, consisting of manufacturing and nonmanufacturing firms and the Federally Funded Research and Development Centers they administer; (3) *colleges and universities*, composed of colleges, universities and their affiliated institutions, agricultural experiment stations and associated schools of agriculture, and Federally Funded Research and Development Centers administered by educational institutions; and (4) *other nonprofit institutions*, consisting of such organizations as private philanthropic foundations, nonprofit research institutes, voluntary health agencies, and Federally Funded Research and Development Centers administered by nonprofit organizations. These centers are exclusively or substantially financed by the Federal government and, in most instances, were originally established to meet a particular research and development need of the Government. They are administered on a contractual basis, by companies, educational institutions, or other nonprofit organizations. The research and development funds reported consist of current operating

costs, including those for planning and administration, except as otherwise noted. They exclude funds for routine testing, mapping and surveying, collection of general-purpose data, dissemination of scientific information, and training of scientific manpower.

Scientists, engineers, and technicians.—Scientists and engineers are defined as persons engaged in scientific and engineering work at a level requiring a knowledge of sciences equivalent at least to that acquired through completion of a 4-year college course. They are generally classified according to the fields of their employment rather than the discipline in which they received their major training. Technicians are defined as persons engaged in technical work at a level requiring knowledge acquired through a technical institute, junior college, or other type of training less extensive than 4-year college training. Craftsmen and skilled workers are excluded.

Historical statistics.—Tabular headnotes provide cross-references, where applicable, to *Historical Statistics of the United States, Colonial Times to 1970*. See Appendix I.

**NO. 1010. RESEARCH AND DEVELOPMENT—DEFENSE, SPACE, AND OTHER OUTLAYS:
1955 TO 1977**

[Includes basic research, applied research, and development. Defense-related outlays comprise all research and development spending by Dept. of Defense including space activities, and a portion of Energy Research and Development Administration funds. Space related outlays are those of the National Aeronautics and Space Administration; they exclude space activities of other Federal agencies, estimated at less than 5 percent of all space research and development spending]

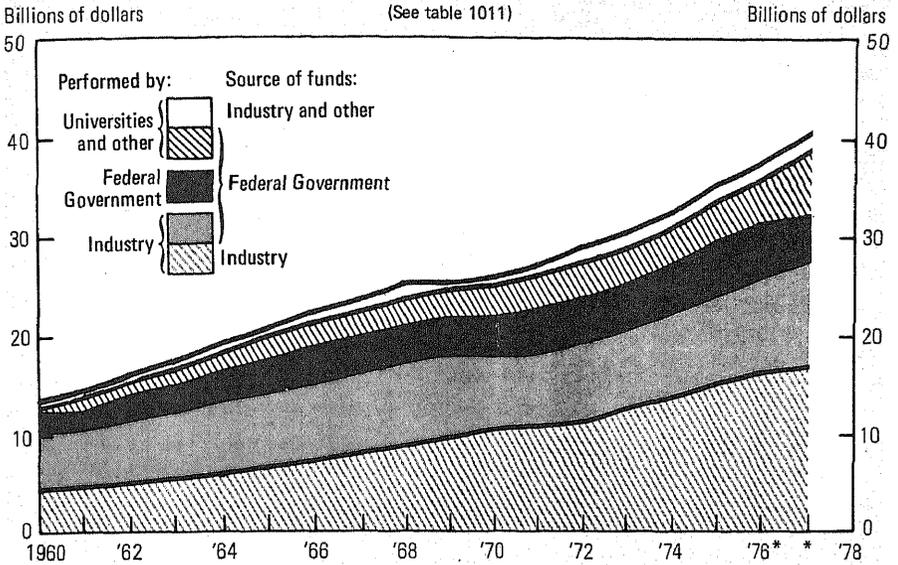
YEAR	RESEARCH AND DEVELOPMENT OUTLAYS				PERCENT OF TOTAL RESEARCH AND DEVELOPMENT					
	Total ¹ (mil. dol.)	Annual percent change	Defense-space related (mil. dol.)	Other (mil. dol.)	Federally-funded defense-space related			Other outlays		
					Total	De- fense	Space	Total	Non- federal	Fed- eral
1955.....	6,172	² 9.4	3,042	3,140	49	48	1	51	43	8
1956.....	8,363	35.5	4,204	4,171	50	49	1	50	42	8
1957.....	9,775	16.9	5,268	4,523	54	53	1	47	38	9
1958.....	10,711	9.6	5,764	4,970	54	53	1	47	37	10
1959.....	12,358	15.4	7,009	5,375	57	54	3	43	35	8
1960.....	13,523	9.4	7,507	6,044	55	52	3	44	35	9
1961.....	14,316	5.9	7,962	6,384	56	50	6	44	35	9
1962.....	15,394	7.5	8,423	7,003	55	48	7	46	36	10
1963.....	17,059	10.8	9,418	7,675	55	41	14	44	34	10
1964.....	18,854	10.5	10,486	8,408	56	37	19	45	34	11
1965.....	20,044	6.3	10,769	9,322	54	33	21	46	35	11
1966.....	21,846	9.0	11,341	10,553	51	32	19	48	36	12
1967.....	23,146	6.0	11,394	11,811	49	35	14	51	38	13
1968.....	24,604	6.3	11,816	12,853	47	34	13	52	39	13
1969.....	25,626	4.2	11,661	14,025	45	34	11	55	42	13
1970.....	25,905	1.1	11,226	14,821	43	33	10	57	43	14
1971.....	26,595	2.7	10,939	15,806	41	32	9	59	44	15
1972.....	28,257	6.2	11,565	16,850	41	33	8	59	44	15
1973.....	30,303	7.2	11,771	18,646	39	32	7	61	46	15
1974.....	32,260	6.5	11,668	20,654	36	29	7	64	48	16
1975.....	34,558	7.1	12,253	22,956	35	27	8	65	47	18
1976, est.....	37,363	8.1	13,636	24,454	34	26	8	65	47	18
1977, est.....	40,800	9.2	(NA)	(NA)	35	27	8	65	47	18

NA Not available.

¹ Includes revisions not shown in detail. ² Change from 1964.

Source: U.S. National Science Foundation, *National Patterns of R & D Resources—Funds and Manpower in the United States, 1955-77*, annual; and unpublished data.

Fig. 21-1. RESEARCH AND DEVELOPMENT FUNDS, BY PERFORMANCE SECTOR AND SOURCE: 1960 to 1977

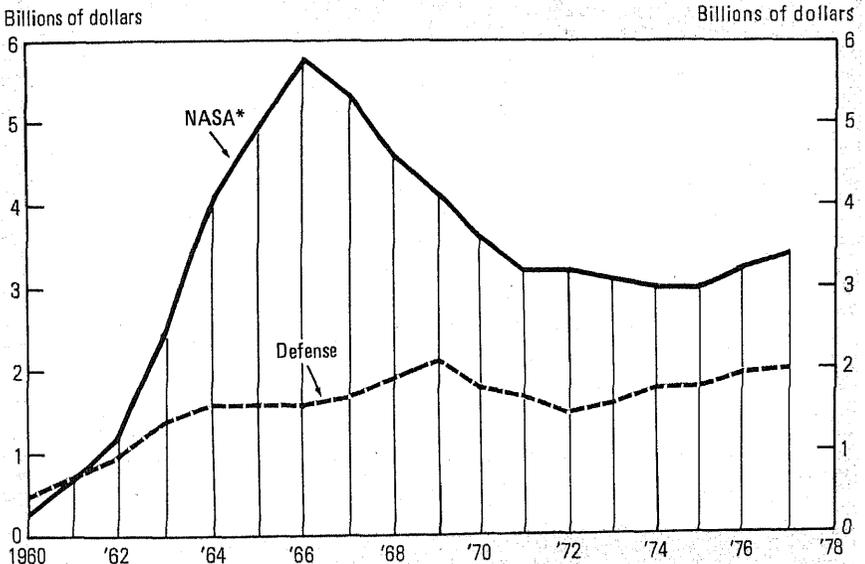


*Preliminary

Source: Chart prepared by U.S. Bureau of the Census. Data from U.S. National Science Foundation.

Fig. 21-2. OUTLAYS FOR FEDERAL SPACE PROGRAM: 1960 TO 1977

(See table 1035)



*National Aeronautics and Space Administration

Source: Chart prepared by U.S. Bureau of the Census. Data from U.S. Office of Management and Budget.

No. 1011. FUNDS FOR PERFORMANCE OF RESEARCH AND DEVELOPMENT AND BASIC RESEARCH, BY SECTOR, DISTRIBUTED BY SOURCE: 1960 TO 1977

[In millions of dollars. Data primarily on calendar year basis—calendar year data for industry and other nonprofit institutions combined with Federal and university fiscal year data. Data refer, in general, to natural sciences including engineering and to social sciences in all but industry sector. Excludes capital expenditures data. Expenditures at associated Federally Funded Research and Development Centers administered by industry and other nonprofit institutions included in totals of respective sectors. See also *Historical Statistics, Colonial Times to 1970*, series W 109-125]

PERFORMANCE SECTOR AND SOURCE OF FUNDS	1960	1965	1970	1971	1972	1973	1974	1975	1976, est.	1977, est.
Total research and development¹	13,523	20,044	25,905	26,595	28,257	30,303	32,260	34,558	37,363	40,800
In 1972 dollars	19,693	26,970	28,355	27,697	28,257	28,642	27,712	27,158	27,927	28,879
Percent Federal as source	64.6	64.9	56.6	56.0	55.9	54.1	52.3	53.0	52.9	53.4
Federal Government	1,726	3,093	3,855	4,156	4,482	4,619	4,815	5,395	5,800	6,600
Industry	10,509	14,185	18,062	18,311	19,383	20,921	22,399	23,540	25,500	27,750
Federal funds	6,051	7,740	7,779	7,666	8,057	8,225	8,340	8,765	9,500	10,600
Industry funds	4,428	6,445	10,283	10,645	11,326	12,696	14,059	14,775	16,000	17,250
Universities and colleges	646	1,474	2,335	2,500	2,676	2,940	3,017	3,393	3,660	3,956
Federal funds	405	1,073	1,648	1,724	1,839	2,041	2,032	2,285	2,454	2,634
Industry funds	40	41	61	70	75	86	96	112	123	134
University and college funds ²	149	267	461	529	576	613	671	741	808	883
Other nonprofit institutions funds ²	52	93	165	177	186	200	218	255	279	305
Univ. and colleges, associated Federally Funded R and D Centers	360	629	737	716	764	817	865	937	1,080	1,177
Other nonprofit institutions	282	663	916	912	952	1,006	1,164	1,243	1,323	1,417
Federal funds	166	477	649	630	653	690	822	875	925	987
Industry funds	48	62	95	98	101	105	111	115	120	124
Other ³	68	124	172	184	198	211	231	253	278	306
Total research, basic and applied	4,217	6,894	9,277	9,411	9,784	10,452	11,302	12,271	13,080	14,188
In 1972 dollars	6,141	9,276	10,154	10,001	9,784	19,879	9,708	9,643	9,776	10,042
Percent Federal as source	57.0	62.9	60.1	58.9	58.8	58.3	57.5	58.2	58.1	58.4
Federal Government	755	1,354	1,913	1,899	1,982	2,096	2,210	2,413	2,530	2,800
Industry	2,405	3,250	4,028	3,994	4,050	4,351	4,837	5,113	5,415	5,840
Federal funds	912	1,224	1,207	1,099	1,068	1,102	1,233	1,321	1,385	1,525
Industry funds	1,493	2,026	2,821	2,895	2,982	3,249	3,604	3,792	4,030	4,315
Universities and colleges	612	1,417	2,223	2,388	2,566	2,772	2,884	3,245	3,499	3,782
Federal funds	387	1,036	1,564	1,641	1,759	1,918	1,961	2,207	2,367	2,544
Industry funds	37	39	56	65	72	81	90	105	115	125
University and college funds ²	138	252	448	515	555	582	629	694	756	827
Other nonprofit institutions funds ²	50	90	155	167	180	191	204	239	261	286
Univ. and colleges, associated Federally Funded R and D Centers	219	412	485	470	476	523	567	654	716	780
Other nonprofit institutions	226	461	628	660	710	710	804	846	920	980
Federal funds	130	307	409	430	465	452	525	545	595	635
Industry funds	38	50	77	79	82	85	90	93	97	100
Other ³	58	104	142	151	163	173	189	208	228	251
Total basic research	1,197	2,555	3,572	3,568	3,757	3,858	4,105	4,455	4,779	5,178
In 1972 dollars	1,743	3,438	3,910	3,916	3,757	3,647	3,526	3,501	3,572	3,665
Percent of total research and development	8.9	12.7	13.8	13.4	13.3	12.7	12.7	12.9	12.8	12.7
Percent Federal as source	59.7	70.8	70.3	68.0	68.5	68.3	68.5	68.3	68.1	68.2
Federal Government	160	364	600	491	561	537	585	645	680	750
Industry	376	592	802	581	579	612	677	702	740	790
Federal funds	79	186	158	125	127	127	159	154	160	176
Industry funds	297	406	444	456	452	485	518	548	580	616
Universities and colleges	433	1,138	1,796	1,914	2,022	2,055	2,147	2,394	2,584	2,793
Federal funds	299	879	1,296	1,349	1,421	1,456	1,622	1,691	1,813	1,949
Industry funds	24	26	40	46	53	57	61	71	78	86
University and college funds ²	72	164	350	400	414	408	426	470	515	564
Other nonprofit institutions funds ²	38	69	110	119	134	134	138	162	178	195
Univ. and colleges, associated Federally Funded R and D Centers	97	208	269	260	250	297	300	307	336	366
Other nonprofit institutions	131	253	305	322	345	357	396	407	439	479
Federal funds	80	172	189	200	214	218	245	245	265	290
Industry funds	21	29	44	45	47	49	52	54	56	58
Other ³	30	52	72	77	84	90	99	108	118	131

¹ Basic research, applied research, and development.

² Includes State and local government funds received by these institutions and used for research and development.

³ Includes estimates for independent nonprofit hospitals and voluntary health agencies.

Source: U.S. National Science Foundation, *National Patterns of R & D Resources—Funds and Manpower in the United States, 1965-77*.

NO. 1012. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT, BY FUNCTION: 1969 TO 1978

[In millions of dollars. For years ending June 30 through 1976, Sept. 30 thereafter. Excludes research and development plant... See *Historical Statistics, Colonial Times to 1970*, series W 126, for total obligations]

FUNCTION	1969	1970	1973	1974	1975	1976	1977, est.	1978, est.
Total	15,641	15,340	16,800	17,415	19,013	20,758	24,465	26,317
National defense.....	8,354	7,976	8,998	8,975	9,621	10,346	11,917	12,907
Space.....	3,732	3,510	2,601	2,478	2,511	2,863	2,972	3,140
Health.....	1,127	1,126	1,624	2,096	2,177	2,366	2,622	2,683
Energy development and conversion.....	328	317	442	605	1,110	1,388	2,390	2,798
Science and technology base.....	513	525	605	695	782	839	953	1,060
Environment.....	315	354	652	693	837	899	1,101	1,098
Transportation and communications.....	458	590	630	703	641	636	769	806
Natural resources.....	201	238	341	341	445	489	547	610
Food, fiber, and other agricultural products.....	225	241	297	291	349	388	444	488
Education.....	155	147	214	174	149	142	284	269
Income security and social services.....	97	106	157	134	149	133	156	148
Area and community development, housing, and public services.....	49	91	97	96	102	104	111	99
Economic growth and productivity.....	56	80	75	72	67	84	98	97
Crime prevention and control.....	5	9	35	36	46	36	49	44
International cooperation and development.....	27	32	33	27	30	45	53	71

Source: U.S. National Science Foundation, *An Analysis of Federal R & D Funding by Function, 1969-77*, and unpublished data.

NO. 1013. FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT: 1960 TO 1977

[In millions of dollars. For years ending June 30, except 1977, ending Sept. 30. Excludes research and development plant. For any given year, obligations differ from expenditures (see table 1014) because not all funds are expended during year obligated. See *Historical Statistics, Colonial Times to 1970*, series W 126, for total obligations]

ITEM	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977, est.
Total R and D	7,552	14,614	15,340	15,564	16,512	16,821	17,438	19,044	20,694	24,461
Basic research.....	610	1,690	2,042	2,132	2,411	2,420	2,465	2,146	2,462	2,785
Applied research.....	1,331	3,164	3,555	3,942	4,146	4,080	4,708	4,783	4,961	5,709
Development.....	5,611	9,760	9,743	9,490	9,955	10,321	10,265	12,115	13,271	15,967
Total research	1,941	4,854	5,597	6,074	6,557	6,500	7,173	6,929	7,873	8,853
Life sciences.....	511	1,167	1,533	1,673	1,982	2,059	2,389	2,450	2,646	2,983
Engineering sciences.....	690	1,576	1,980	2,040	1,965	1,760	2,003	2,401	2,878	2,602
Physical sciences.....	608	1,029	1,012	1,042	1,139	1,126	1,183	1,025	1,221	1,406
Environmental sciences.....		676	575	677	783	791	876	653	770	852
Math. and comp. sciences.....	25	105	102	120	136	126	127	136	153	166
Social sciences.....	35	127	209	304	310	296	292	303	390	457
Psychological sciences.....	38	103	114	116	126	116	143	134	140	164
Other sciences.....	33	70	72	103	116	226	161	187	175	224

NO. 1014. FEDERAL EXPENDITURES FOR RESEARCH AND DEVELOPMENT BY AGENCY: 1965 TO 1977

[In millions of dollars. For years ending June 30, except 1977, ending Sept. 30. Includes social science research. See *Historical Statistics, Colonial Times to 1970*, series W 142, for total R & D expenditures]

AGENCY	1965	1970	1972	1973	1974	1975	1976	1977, est.
Total	13,811	15,157	16,179	16,872	17,621	19,590	20,233	22,574
Departments:								
Agriculture.....	200	285	348	348	376	426	460	544
Commerce.....	58	123	164	180	176	225	224	243
Defense ¹	6,628	7,447	8,139	8,441	8,815	9,364	9,329	10,391
Army.....	1,409	1,753	1,859	1,996	2,277	2,083	(NA)	(NA)
Navy.....	1,397	2,151	2,462	2,466	2,668	3,126	(NA)	(NA)
Air Force.....	3,360	3,089	3,363	3,533	3,374	3,568	(NA)	(NA)
Health, Education, and Welfare.....	681	1,218	1,517	1,816	1,927	2,178	2,566	2,532
National Institutes of Health.....	555	877	1,087	1,333	1,408	1,684	2,006	2,215
Interior.....	109	162	210	238	198	245	315	342
Transportation.....	-	259	274	312	328	339	303	337
Energy Research and Devel. Admin. ²	1,241	1,346	1,298	1,363	1,489	2,272	2,225	3,168
Environmental Protection Agency.....	-	68	133	145	161	219	251	313
National Aero. and Space Admin.....	4,562	3,697	3,373	3,271	3,181	3,267	3,521	3,557
National Science Foundation.....	150	269	418	428	571	600	623	650
Veterans Administration.....	37	58	67	75	80	97	97	108

¹ Represents zero. NA Not available. ² Prior to 1974, represents Atomic Energy Commission.

³ Includes agencies not shown separately.

Source of tables 1013 and 1014: Through 1975, U.S. National Science Foundation, *Federal Funds for Research, Development, and Other Scientific Activities*, annual; beginning 1976, U.S. Office of Management and Budget, *Special Analyses, Budget of the United States Government*, annual.

NO. 1015. INDUSTRIAL RESEARCH AND DEVELOPMENT FUNDS, BY GEOGRAPHIC DIVISION: 1970 TO 1975

[For States in each division, see fig. I, inside front cover]

GEOGRAPHIC DIVISION	1970		1972		1973		1974		1975		Federal Govt. (mil. dol.)	Private industry (mil. dol.)
	Total (mil. dol.)	Percent										
United States..	18,062	100	19,383	100	20,921	100	22,399	100	23,540	100	8,765	14,776
New England.....	1,854	10	1,929	10	2,036	10	2,058	9	2,064	9	903	1,160
Mid. Atlantic.....	4,479	25	4,876	25	4,809	23	5,167	23	5,438	23	1,426	4,012
E. No. Central.....	3,622	20	4,308	22	4,587	22	4,695	21	4,771	20	485	4,287
W. No. Central.....	766	4	1,068	5	1,049	5	1,017	5	988	4	303	684
So. Atlantic.....	1,424	8	1,546	8	1,685	8	1,775	8	1,790	8	534	1,255
E. So. Central.....	346	2	327	2	373	2	388	2	412	2	229	183
W. So. Central.....	571	3	577	3	637	3	728	3	831	4	273	558
Mountain.....	687	4	576	3	633	3	662	3	783	3	409	373
Pacific.....	4,313	24	4,176	21	4,662	22	4,881	22	5,435	23	3,946	1,489

¹ Includes undistributed funds, not shown separately.

NO. 1016. FUNDS FOR PERFORMANCE OF INDUSTRIAL RESEARCH AND DEVELOPMENT, BY INDUSTRY AND SOURCE OF FUNDS: 1965 TO 1975

[In millions of dollars. Covers basic research, applied research, and development. See also *Historical Statistics, Colonial Times to 1970*, series W 144-160]

ITEM	1965	1970	1974			1975		
			Total	Federal Govt.	Private industry	Total	Federal Govt.	Private industry
Total ¹.....	14,185	18,062	22,399	8,340	14,059	23,540	8,765	14,776
Electrical equip. and communication.....	3,200	4,352	5,495	2,579	2,914	5,530	2,515	3,016
Aircraft and missiles.....	5,148	5,245	5,319	4,140	1,179	5,729	4,529	1,200
Machinery.....	1,065	1,649	2,484	365	2,119	2,658	373	2,286
Chemicals and allied products.....	1,356	1,766	2,377	218	2,158	2,650	240	2,410
Motor vehicles and other transp. equip.....	1,230	1,582	2,425	(NA)	(NA)	2,338	335	2,003
Professional and scientific instruments.....	403	745	989	184	805	1,034	181	854
Petroleum refining and extraction.....	397	515	622	20	603	700	30	660
Primary metals.....	213	275	311	8	303	365	10	356
Food and kindred products.....	157	235	295	1	294	324	1	323
Fabricated metal products.....	145	200	293	13	280	311	15	290
Rubber products.....	162	220	290	(NA)	(NA)	283	(NA)	(NA)
Paper and allied products.....	94	178	237	(NA)	(NA)	253	(NA)	(NA)
Stone, clay, and glass products.....	112	157	187	1	186	186	1	184

NA Not available. ¹ Includes industries not available separately.

Source of tables 1015 and 1016: U.S. National Science Foundation, *Research and Development in Industry*, annual.

NO. 1017. FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES: 1965 TO 1976
[In millions of dollars, except percent. For years ending June 30. Minus sign (-) denotes decrease]

ITEM	1965	1969	1970	1971	1972	1973	1974	1975	1976, prel.
Total Federal obligations.....	2,305	3,462	3,237	3,499	4,145	3,839	4,479	4,533	5,399
Annual percent change ¹	41.9	2.2	-6.5	8.1	18.5	-7.4	16.7	1.2	19.1
Academic science obligations.....	1,816	2,361	2,188	2,343	2,599	2,464	2,736	2,790	2,956
Percent of total.....	78.8	68.2	67.6	67.0	62.7	64.2	61.1	61.6	54.8
Research and development.....	1,095	1,475	1,447	1,551	1,853	1,871	2,085	2,224	2,419
Research and development plant.....	126	55	45	30	37	43	29	45	24
Other science activities.....	595	832	696	762	709	550	622	522	513
Non-science activities.....	489	1,101	1,049	1,156	1,545	1,375	1,743	1,741	2,443

¹ For 1965, change from 1964; for 1969, change from 1968.

Source: U.S. National Science Foundation, *Federal Support to Universities, Colleges, and Selected Nonprofit Institutions*, annual.

No. 1018. SEPARATELY BUDGETED RESEARCH AND DEVELOPMENT EXPENDITURES IN SCIENCE AND ENGINEERING IN UNIVERSITIES AND COLLEGES: 1964 TO 1976
 (In millions of dollars. Estimates for nonrespondents account for less than 7 percent of the total)

CHARACTERISTIC	1964	1966	1968	1970	1972	1973	1974	1975	1976 ¹
Total	1,275	1,715	2,149	2,335	2,677	2,940	3,017	3,405	3,720
In 1972 dollars ²	1,733	2,230	2,611	2,569	2,677	2,816	2,679	2,726	2,793
Basic research.....	1,003	1,303	1,650	1,796	2,022	2,054	2,146	2,405	2,534
Applied research.....	232	328	404	427	544	717	737	851	1,019
Development.....	41	83	95	112	110	168	133	148	167
Source of funds:									
Federal Government.....	917	1,261	1,572	1,648	1,839	2,038	2,032	2,291	2,459
State and local governments.....	132	156	172	219	270	295	327	352	389
Institutions' own funds.....	103	147	218	243	306	319	344	390	451
Foundations and voluntary health agencies.....	61	77	95	110	128	131	142	168	186
Industry and other.....	61	74	91	116	134	156	172	204	235
Field of science:									
Engineering.....	162	259	309	319	347	384	346	381	442
Physical sciences ³	217	287	320	307	330	330	333	350	390
Astronomy.....	16	23	24	19	22	24	24	27	28
Chemistry.....	70	85	105	102	110	114	116	121	142
Physics.....	120	159	173	162	162	168	169	173	190
Environmental sciences.....	55	68	120	125	192	210	235	255	284
Mathematical and computer sciences.....	33	42	58	72	71	75	77	85	84
Life sciences ³	682	872	1,037	1,194	1,353	1,529	1,627	1,899	2,084
Biological and agricultural.....	315	422	491	547	632	833	856	987	1,145
Clinical medical.....	320	390	477	549	605	646	714	841	866
Psychology.....	32	40	59	59	70	74	74	80	73
Social sciences and other.....	96	146	245	258	313	338	324	355	364

¹ Preliminary. ² Based on GNP implicit price deflator. ³ Includes sciences not shown separately.
 Source: U.S. National Science Foundation, unpublished data.

No. 1019. STATE GOVERNMENT EXPENDITURES FOR RESEARCH AND DEVELOPMENT, BY CATEGORY: 1964 TO 1973
 (In millions of dollars. For fiscal years ending in year stated)

ITEM	1964	1965	1967	1968	1972	1973
Total	77	93	136	159	242	273
Research and development.....	72	88	131	155	235	264
Basic research.....	25	30	32	36	53	58
Applied research.....	33	39	65	77	143	163
Development.....	14	18	34	42	40	43
Research and development plant.....	5	5	5	4	7	10

Source: U.S. National Science Foundation, *Research and Development in State Government Agencies, 1972 and 1973*.

No. 1020. SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT, BY SECTOR: 1954 TO 1976

(In thousands of full-time equivalent employees. Yearly averages. Excludes those employed by State and local government agencies, except as noted)

SECTOR	1954	1958	1961	1965	1970	1972	1973	1974	1975	1976 ¹
Total	237.1	354.6	425.7	494.5	546.5	518.5	520.4	524.9	533.7	541.9
Industry (excl. social scientists) ²	104.1	256.1	312.0	348.4	375.5	353.3	360.6	359.3	361.5	364.4
Universities and colleges, total.....	25.0	36.5	42.4	53.4	68.5	66.5	63.5	65.5	70.2	72.4
Scientists and engineers.....	20.3	29.2	33.6	40.4	50.3	48.9	46.9	48.0	51.6	53.5
Graduate students.....	4.7	7.3	8.8	13.0	18.2	17.6	16.6	17.5	18.6	18.9
Federal Government (incl. D.O.D.).....	37.7	46.0	51.1	61.8	69.8	65.2	62.3	65.0	64.5	65.3
University-associated Federally Funded R & D Centers (FFRDC's).....	5.0	8.1	9.1	11.1	11.5	11.7	12.0	12.1	12.7	13.4
Other nonprofit institutions ^{2,3}	5.3	7.9	11.1	19.8	21.2	21.8	22.0	23.0	24.8	26.4

¹ Estimated. ² Includes professional R & D personnel employed at FFRDC's administered by industry. ³ Includes estimate for R & D scientists and engineers employed in State-affiliated institutions.
 Source: U.S. National Science Foundation, *National Patterns of R & D Resources—Funds and Manpower in the United States, 1953-1976*.

No. 1021. SCIENTISTS AND ENGINEERS BY FIELD, EMPLOYMENT STATUS, AND SEX: 1974
 [In thousands, except percent. Represents the total science and engineering population in the United States]

FIELD	Total	Percent female	LABOR FORCE				OUTSIDE LABOR FORCE ¹	
			Total	Percent female	Unemployed, seeking		Total	Percent female
					Total	Percent female		
Total, all fields	1,973.2	9.4	1,678.1	5.8	16.0	11.3	295.0	29.6
Engineers.....	1,071.8	.7	1,008.7	.5	10.0	1.0	63.0	3.7
Physical scientists.....	188.3	9.8	157.4	9.5	1.8	33.3	30.8	10.7
Chemists.....	138.0	11.3	114.7	11.4	1.4	42.9	23.3	10.3
Physicists/astronomers.....	42.4	5.9	35.1	4.6	.4	(²)	7.4	12.2
Other physical scientists.....	7.8	3.8	7.6	2.6	(¹)	(²)	2.2	(²)
Mathematical scientists.....	60.4	25.2	45.2	15.5	.4	25.0	15.2	53.9
Mathematicians.....	43.5	25.1	32.5	15.4	.3	33.3	10.9	54.1
Statisticians.....	16.9	24.9	12.6	15.9	.1	(²)	4.2	54.8
Computer specialists.....	125.5	19.3	122.6	17.5	.8	37.5	2.9	96.6
Environmental scientists.....	52.0	5.2	44.5	4.0	.4	(²)	7.5	12.0
Earth scientists.....	45.6	5.7	38.5	4.4	.3	(²)	7.1	12.7
Oceanographers.....	2.0	(²)	1.8	(²)	.1	(²)	.2	(²)
Atmospheric scientists.....	4.3	2.3	4.1	2.4	(²)	(²)	.2	(²)
Life scientists.....	193.9	17.6	137.1	13.5	1.2	16.7	56.8	27.5
Biological scientists.....	118.0	22.5	69.4	18.3	.8	25.0	48.6	28.6
Agricultural scientists.....	57.9	2.8	50.8	.6	.3	(²)	7.1	19.7
Medical scientists.....	18.1	32.6	16.9	32.5	.1	(²)	1.2	33.3
Psychologists.....	94.7	28.6	62.0	24.8	.6	66.7	32.7	35.8
Social scientists.....	186.7	29.9	100.6	13.3	.8	25.0	86.1	49.4
Economists.....	54.6	9.2	39.3	8.4	.2	(²)	15.3	11.1
Sociologists/anthropologists.....	50.4	46.8	22.3	22.0	.3	33.3	28.1	60.5
Other social scientists.....	81.7	33.4	39.1	13.3	.4	25.0	42.6	51.9

¹ Includes those not employed or seeking employment as, for example, retirees.
² Too few cases to estimate.

No. 1022. CHARACTERISTICS OF SCIENTISTS AND ENGINEERS: 1974

[Represents the total science and engineering population in the United States. Figures differ from those shown in table 953, 1976 Abstract, because those data were based on The National Sample which is one element of the composite total presented here]

CHARACTERISTIC	Total	Engineers	Physical scientists	Mathematical specialists	Computer specialists	Environmental scientists	Life scientists	Psychologists	Social scientists
Total	1,000	1,072	188	60	126	52	194	95	187
PERCENT DISTRIBUTION									
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male.....	90.6	99.3	90.2	74.8	80.7	94.8	82.4	71.5	70.1
Female.....	9.4	.7	9.8	25.1	19.3	5.2	17.6	28.6	29.9
Under 30 years.....	31.1	21.7	23.8	40.7	50.2	31.0	40.8	48.9	56.8
30-39 years.....	25.4	26.1	30.3	28.8	30.4	20.6	23.5	21.1	17.4
40-49 years.....	22.6	26.7	22.6	17.1	15.5	26.5	18.9	16.5	11.4
50-59 years.....	14.5	17.7	15.9	7.6	3.4	16.2	11.4	9.5	9.8
60 and over.....	6.4	7.8	7.3	5.8	.5	5.7	5.3	4.0	4.6
Highest degree ¹	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Doctorate.....	13.9	4.0	36.9	25.7	3.0	23.8	34.1	34.6	16.5
Master's.....	19.9	18.9	18.4	28.6	21.3	27.7	18.2	28.6	18.7
Bachelor's.....	63.6	73.0	44.3	45.0	75.4	48.1	45.4	36.4	64.2
Other.....	2.6	4.0	.3	.7	.4	.4	2.3	.4	.6
Type of employer ²	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Business, industry.....	57.7	71.4	44.9	27.9	65.5	41.3	25.4	12.0	23.8
Educational institutions.....	12.4	2.9	22.4	39.5	5.3	18.6	34.9	44.1	35.1
Nonprofit organizations.....	4.0	2.0	5.2	2.7	3.4	2.0	6.0	23.3	9.3
Federal Government.....	9.5	8.4	9.2	14.1	6.9	17.9	16.2	3.6	12.0
Military.....	.5	.5	.3	.7	1.1	.5	.3	.2	.5
Other government.....	8.9	8.7	5.6	9.2	8.1	11.1	10.4	9.3	13.3
Other.....	7.1	6.2	12.3	6.0	9.5	8.4	6.7	7.7	5.9

¹ Includes "No degree," not shown separately. ² Includes "No report," not shown separately.

No. 1023. UNEMPLOYMENT RATES FOR SCIENTISTS AND ENGINEERS: 1972 TO 1976

[Percent. Based on The National Sample of scientists and engineers in the 1970 labor force]

FIELD	1972	1973	1974	1975	1976
Total, all fields.....	1.9	.9	1.1	1.4	1.9
Computer specialists.....	1.4	.5	1.0	1.2	1.4
Engineers.....	2.2	.9	1.1	1.6	2.1
Mathematical scientists.....	1.8	1.0	.9	.9	1.9
Life scientists.....	1.2	.8	1.0	1.0	1.6
Physical scientists.....	1.8	.7	1.3	1.4	1.5
Environmental scientists.....	1.6	.9	1.1	.5	.9
Psychologists.....	.7	.7	1.1	1.6	2.7
Social scientists.....	1.9	1.2	1.0	.7	1.6

Source: U.S. National Science Foundation, unpublished data.

No. 1024. RESEARCH AND DEVELOPMENT SCIENTISTS AND ENGINEERS—MAN-YEARS AND COST, BY INDUSTRY AND SOURCE OF SUPPORT: 1970 AND 1975

[In thousands. See *Historical Statistics, Colonial Times to 1970*, series W 167, for total cost per scientist or engineer]

INDUSTRY	1970			1975				
	Total	Private industry	Federal Govt.	Total	Private industry	Federal Government		
						Total ¹	Dept. of Defense	NASA ²
Man-years of scientists and engineers.....	369.9	231.4	138.5	360.6	231.4	106.6	77.8	12.8
Chemicals and allied products.....	42.2	38.7	3.5	45.7	43.0	2.7	.7	(NA)
Machinery.....	43.1	36.0	7.2	43.2	38.2	5.0	4.0	1.6
Electrical equip. and communication.....	97.7	50.7	47.0	93.7	55.5	38.2	28.0	3.2
Motor vehicle and other transport equip..	24.2	19.5	4.7	(NA)	(NA)	(NA)	(NA)	(NA)
Aircraft and missiles.....	83.0	20.4	62.6	68.1	21.4	46.7	34.6	7.8
Other industries.....	79.7	66.1	13.5	83.2	73.3	10.2	7.1	(NA)
Cost per scientist or engineer.....dol.	48.3	22.9	56.2	65.3	58.2	32.2	76.4	110.0
Chemicals and allied products.....	42.9	42.0	53.7	58.0	58.0	87.0	42.9	(NA)
Machinery.....	40.1	40.1	39.2	61.8	59.8	73.8	73.0	88.3
Electrical equip. and communication.....	44.3	40.7	48.1	59.0	54.3	65.6	61.1	65.3
Motor vehicle and other transport equip..	61.0	63.2	51.7	(NA)	(NA)	(NA)	(NA)	(NA)
Aircraft and missiles.....	62.3	54.3	65.0	84.1	56.1	96.2	91.2	136.2
Other industries.....	42.0	39.4	55.0	55.3	52.4	75.5	66.9	(NA)

NA Not available. ¹ Includes other agencies not shown separately.

² National Aeronautics and Space Administration.

Source: U.S. National Science Foundation, *Research and Development in Industry*, annual.

No. 1025. EMPLOYMENT OF SCIENTISTS AND ENGINEERS, BY OCCUPATION AND MAJOR INDUSTRIAL SECTOR: 1975

[In thousands]

OCCUPATION	Total	Manufacturing	Non-manufacturing	OCCUPATION	Total	Manufacturing	Non-manufacturing
Total.....	1,184	670	514	Physical scientists.....	104	85	19
Engineers.....	853	507	346	Chemists.....	65	59	6
Chemical.....	50	41	9	Physicists.....	10	10	(Z)
Civil, sanitary.....	82	11	71	Other.....	28	16	13
Electrical.....	292	143	149	Metallurgists.....	9	9	(Z)
Industrial.....	67	57	9	Geologists.....	15	3	12
Materials, metals, ceramics.....	20	16	4	Other.....	5	4	1
Mechanical, aeronautical.....	201	157	44	Life scientists.....	60	24	36
Mining, petroleum, geological.....	18	3	15	Mathematical scientists..	14	7	7
Nuclear.....	7	4	2	Computer scientists.....	143	43	100
Other.....	117	74	43	Social scientists (incl. psychologists).....	10	5	5

Z Fewer than 500.

Source: U.S. National Science Foundation, *Science Resource Studies Highlights*, NSF 77-312.

No. 1026. SCIENTISTS AND ENGINEERS—EMPLOYMENT IN INSTITUTIONS OF HIGHER EDUCATION, BY FIELD OF EMPLOYMENT: 1965 TO 1976

[In thousands. As of January. Includes full-time and part-time personnel. Excludes graduate students who receive stipends for part-time services as scientists or engineers. R and D = research and development]

FIELD OF EMPLOYMENT	1965	1974	1975	1976	FIELD OF EMPLOYMENT	1965	1974	1975	1976
	Total	189.9	281.2	293.1		302.5	Life scientists.....	75.8	111.3	115.3	115.7
Universities, colleges.....	178.9	269.3	280.6	289.2	Agricultural.....	13.5	13.6	14.6	14.2
Teaching personnel.....	122.0	207.1	215.8	223.2	Biological.....	24.3	35.7	38.2	39.7
Engineers ¹	21.7	27.1	27.8	28.3	Medical.....	38.0	62.0	62.4	61.8
Aeronautical.....	1.1	1.2	1.1	1.1	Psychologists.....	9.4	20.0	21.7	22.9
Chemical.....	1.6	1.7	1.9	1.8	Social scientists ¹	32.9	45.5	48.8	52.6
Civil.....	3.1	4.5	4.9	5.0	Economists.....	7.9	12.0	12.7	13.2
Electrical.....	5.5	6.5	6.8	6.9	Sociologists.....	6.3	13.0	14.2	15.2
Mechanical.....	4.1	5.0	5.3	5.3	Political scientists.....	5.9	10.0	10.6	11.3
Physical and environmental scientists ¹	26.5	38.2	38.7	40.0	Federally Funded R and D centers.....	11.0	12.0	12.5	13.3
Chemists.....	10.7	16.1	16.1	16.6	Engineers.....	5.0	5.7	5.9	6.0
Earth scientists.....	4.0	5.8	6.0	6.6	Physical and environmental scientists.....	4.2	4.6	4.7	5.2
Physicists.....	9.1	12.1	12.3	12.2	Mathematical and computer scientists ²	1.0	1.0	1.3	1.4
Mathematical and computer scientists.....	13.7	27.1	28.4	29.8	Other.....	.8	.6	.6	.8

¹ Includes other engineers or scientists not shown separately.

² Includes statisticians.

No. 1027. FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED IN UNIVERSITIES AND COLLEGES, BY FIELD OF EMPLOYMENT, AND SEX: 1974 TO 1976

[As of January. Excludes graduate students who receive stipends for part-time services as scientists or engineers. Excludes Federally Funded Research and Development Centers]

FIELD OF EMPLOYMENT	TOTAL (1,000)			PERCENT MALE		FIELD OF EMPLOYMENT	TOTAL (1,000)			PERCENT MALE	
	1974	1975	1976	1975	1976		1974	1975	1976	1975	1976
	Total	218.8	224.8	230.5	84.8		84.4	Mathematicians.....	22.2	22.4	23.1	86.9	86.6
Physical sciences.....	33.4	33.5	34.4	93.1	92.7	Life sciences.....	88.9	92.0	92.6	79.8	79.8
Chemistry.....	14.1	13.8	14.2	89.6	89.3	Agricultural.....	12.8	13.6	13.0	86.8	89.1
Earth sciences ¹	6.6	6.8	7.3	95.3	94.8	Biological.....	31.5	33.5	34.7	81.0	79.9
Physics.....	10.9	10.9	10.9	96.5	96.3	Medical.....	44.6	44.9	44.9	76.9	77.1
Other.....	1.9	1.9	2.1	90.5	90.8	Psychologists.....	15.0	16.0	16.8	77.6	76.3
Engineers.....	22.8	22.6	22.8	98.4	98.0	Social sciences.....	36.7	38.3	40.9	83.4	82.3
Aeronautical ²	1.0	.9	1.0	97.4	97.1	Economics.....	9.8	10.2	10.4	81.5	90.0
Chemical.....	1.5	1.6	1.6	98.4	97.7	Sociology.....	10.0	10.8	11.4	75.5	74.4
Civil.....	3.8	3.8	4.0	98.4	97.9	Pol. science.....	8.4	8.7	9.0	89.7	88.6
Electrical.....	5.4	5.4	5.4	98.9	98.6	Other.....	8.4	8.7	10.0	77.2	76.7
Mechanical.....	4.3	4.4	4.4	99.3	99.0						
Other.....	6.8	6.5	6.5	97.4	97.2						

¹ Includes data for atmospheric scientists and oceanographers. ² Includes aeronautical.

Source of tables 1026 and 1027: U.S. National Science Foundation. Data derived from Survey of Scientific and Engineering Personnel Employed at Universities and Colleges.

No. 1028. PROFESSIONAL SCIENTIFIC, ENGINEERING, AND TECHNICAL PERSONNEL IN THE FEDERAL GOVERNMENT, BY OCCUPATIONAL GROUP: 1966 TO 1975

[In thousands, except percent. 1966 data as of December, all other years as of October]

OCCUPATIONAL GROUP	1966	1970	1973	1974	1975	PERCENT FEMALE			
						1966	1970	1974	1975
						Total	192.7	206.2	210.7	209.7	221.9	16.6	16.4	19.3	19.7
Percent female.....	16.6	16.4	18.3	19.3	19.7	(X)	(X)	(X)	(X)
Scientific personnel.....	71.5	77.2	74.8	75.1	77.3	7.8	8.0	8.5	8.8
Physical sciences.....	27.3	29.8	26.4	26.3	27.1	6.4	6.4	6.4	6.6
Mathematics and statistics.....	7.3	8.6	9.5	9.4	10.0	20.0	17.4	16.2	15.9
Life sciences.....	26.0	26.9	26.2	26.2	26.4	3.7	4.1	4.8	5.1
Social sciences and community planning.....	5.8	6.6	7.3	7.3	8.0	14.5	16.2	17.3	17.6
Geography and cartography.....	3.2	3.3	2.9	2.9	2.9	8.6	8.5	7.9	7.9
Psychology.....	1.9	2.2	2.5	2.6	2.9	14.6	13.7	14.7	14.6
Engineering personnel.....	76.8	83.0	84.3	82.5	86.6	.5	.5	.6	.7
Health professional personnel.....	44.3	46.0	51.6	52.1	58.0	58.8	59.2	64.5	62.7
Health officers.....	13.1	13.0	12.6	11.2	13.4	4.7	5.5	7.9	7.8

X Not applicable.

Source: U.S. National Science Foundation. Compiled from data supplied by U.S. Civil Service Commission.

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No. 1029. SALARIES OF PROFESSIONAL, SCIENTIFIC, AND TECHNICAL PERSONNEL IN THE FEDERAL GOVERNMENT, BY OCCUPATIONAL FIELD, BY SEX: 1970 TO 1975
 [In thousands of dollars. Mean annual salaries. As of October]

OCCUPATIONAL FIELD	1970			1972			1975		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Engineering.....	17.8	17.8	15.5	19.4	19.4	16.0	24.2	24.2	19.2
Health officers.....	19.5	19.3	21.3	22.9	24.1	26.6	28.6	28.4	31.0
Nursing personnel.....	10.0	10.9	10.0	12.0	12.6	12.0	14.7	14.2	14.7
Scientific personnel.....	16.3	16.5	14.0	18.2	18.5	15.8	22.5	22.8	19.1
Physical sciences.....	17.8	18.1	13.6	19.7	20.0	15.1	24.4	24.8	19.2
General physical.....	20.5	20.7	15.0	23.9	24.1	18.0	28.1	28.3	21.7
Chemistry.....	16.0	16.5	13.4	17.6	18.2	14.5	22.5	23.1	18.9
Physics.....	17.8	17.9	15.7	20.2	20.3	17.2	25.5	25.6	21.0
Life sciences.....	14.3	14.3	13.0	16.2	16.2	14.6	20.0	20.1	17.5
General biological sciences.....	16.9	16.6	12.2	18.0	18.7	14.1	21.0	21.7	17.0
Agricultural sciences.....	13.2	13.2	14.9	14.9	14.9	17.1	18.6	18.6	16.2
Animal sciences.....	17.3	17.4	14.5	19.2	19.3	16.4	23.5	23.8	19.4
Microbiology.....	15.6	16.6	13.1	17.1	18.1	14.5	21.0	22.3	17.9
Plant sciences.....	14.5	14.5	12.5	16.6	16.7	14.5	20.8	21.0	17.5
Mathematics.....	15.5	15.8	14.1	17.6	18.0	15.7	22.0	22.5	19.4
Statistics.....	16.7	17.3	14.5	18.9	19.6	16.5	22.5	23.3	19.7
Social sciences.....	17.8	18.3	15.0	19.9	20.5	17.0	23.4	24.2	20.0
Economics.....	18.0	18.3	15.2	20.2	20.6	17.0	23.6	24.2	19.7
Geography and cartography.....	13.9	14.1	12.4	15.9	16.0	14.2	19.8	20.0	17.4
Psychology.....	18.2	18.5	15.9	19.8	20.2	17.5	23.9	24.5	20.5

Source: U.S. National Science Foundation, unpublished data. Data from U.S. Civil Service Commission.

No. 1030. SCIENTISTS, ENGINEERS, AND PHYSICIANS ADMITTED AS IMMIGRANTS, BY OCCUPATION: 1967 TO 1976

[For years ending June 30. Includes professors and instructors in each field]

OCCUPATION	1967-1976, total	1967	1970	1971	1972	1973	1974	1975	1976
Physicians and surgeons.....	48,988	3,325	3,155	5,748	7,143	7,119	4,537	5,361	6,184
Scientists and engineers.....	100,540	12,523	13,337	13,102	11,323	6,632	5,969	6,931	7,495
Engineers ¹	69,143	8,821	9,305	9,015	7,436	4,443	3,866	4,643	5,146
Chemical.....	6,280	668	908	860	791	438	333	433	446
Civil.....	10,098	840	1,509	1,666	1,461	700	575	694	697
Electrical.....	10,729	1,344	1,464	1,422	1,305	661	543	676	754
Mechanical.....	11,940	1,344	1,618	1,603	1,470	829	627	845	823
Natural scientists ¹	25,337	3,158	3,264	3,456	3,271	1,790	1,422	1,602	1,663
Agricultural scientists ²	3,190	189	380	460	518	388	250	305	212
Biologists, medical scientists.....	3,448	377	388	495	327	309	222	238	268
Chemists.....	11,284	1,392	1,495	1,606	1,372	711	592	675	678
Physicists.....	2,867	540	401	296	325	118	113	137	152
Social scientists.....	6,060	544	768	631	616	399	681	681	686

¹ Includes occupations not shown separately. ² Includes foresters and conservationists.

Source: U.S. National Science Foundation, *Scientists, Engineers, and Physicians From Abroad*, annual. Based on data from U.S. Immigration and Naturalization Service.

No. 1031. GRADUATE STUDENTS—BY AREA OF SCIENCE AND LEVEL OF STUDY: 1971 TO 1975

[As of fall. Includes outlying areas]

FIELD OF SCIENCE	TOTAL STUDENTS						FULL-TIME STUDENTS					
	First-year			Beyond first-year			First-year			Beyond first-year		
	1971	1974	1975	1971	1974	1975	1971	1974	1975	1971	1974	1975
Total.....	124,832	128,034	132,188	121,268	122,639	129,334	69,442	70,577	72,478	81,616	79,619	81,783
Life sciences ¹	22,854	27,072	28,594	24,808	27,153	29,455	14,308	17,073	17,828	18,440	19,262	20,124
Physical sciences.....	16,665	14,543	14,941	22,263	20,393	20,556	10,661	9,626	9,893	17,021	15,121	15,115
Mathematics ²	18,917	15,885	15,096	11,930	11,233	11,928	7,505	6,717	6,407	7,176	6,422	6,614
Engineering ³	30,677	30,857	32,437	28,644	25,144	26,867	14,895	14,682	15,866	16,466	14,028	14,905
Psychology.....	14,754	17,270	18,510	11,958	15,524	16,808	8,412	9,728	10,024	8,307	10,392	10,675
Social sciences ⁴	22,965	22,407	22,610	21,665	23,192	23,720	13,661	12,751	12,460	14,206	14,394	14,350

¹ Includes interdisciplinary majors in biological and physical sciences. ² Includes computer and information sciences. ³ Includes interdisciplinary majors; excludes engineering technologies.

⁴ Includes agricultural economics, anthropology, archeology, demography, economics, geography, linguistics, political science and government, and sociology.

Source: U.S. National Science Foundation. Data from U.S. National Center for Education Statistics, *Students Enrolled for Advanced Degrees*, annual.

No. 1032. DOCTORATES CONFERRED, 1970 AND 1976, AND SELECTED FIELDS, 1976, BY CHARACTERISTICS

ITEM	All fields, 1970	1976					
		All fields ¹	Physical sciences ²	Engineering	Biological sciences ³	Psychology	Social sciences ⁴
Doctorates conferred.....	29,436	32,923	4,445	2,791	3,245	2,878	2,931
Percent distribution.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male.....	86.5	76.7	90.8	98.1	76.8	67.1	79.2
Female.....	13.4	23.3	9.2	1.9	23.2	32.9	20.8
White.....	(NA)	79.5	76.8	62.8	(NA)	(NA)	(NA)
Black and other.....	(NA)	12.4	14.3	24.5	(NA)	(NA)	(NA)
Not reported.....	(NA)	8.1	8.9	12.7	(NA)	(NA)	(NA)
U.S. citizens.....	84.2	82.6	75.7	54.9	83.8	94.6	78.9
Foreign citizens.....	14.0	15.2	22.6	42.4	13.5	4.4	18.8
Citizenship unknown.....	1.6	2.2	1.7	2.7	2.7	1.0	2.3
Percent with master's degree.....	78.6	82.0	62.1	90.8	56.4	79.1	84.0
Median age at award.....years.....	30.7	31.6	29.0	30.2	29.4	29.6	31.5
Median time, baccalaureate to doctorate:							
Total time.....years.....	7.9	8.6	6.7	7.5	6.9	6.9	8.5
Registered time.....years.....	5.6	6.0	5.6	5.6	5.7	5.5	6.0

NA Not available. ¹ Includes arts and humanities and other fields, not shown separately.

² Astronomy, physics, chemistry, earth sciences, and mathematics.

³ Biochemistry, botany, microbiology, physiology, zoology, and related fields.

⁴ Anthropology, sociology, economics, political science, public administration, and international relations.

Source: U.S. National Science Foundation. Data from National Research Council, *Summary Report, 1976: Doctorate Recipients from United States Universities*.

No. 1033. SCIENCE DOCTORATES CONFERRED AND ENROLLMENT FOR ADVANCED DEGREES: 1960 TO 1976

[Doctorates conferred, years ending June 30; enrollment, as of fall term. See also *Historical Statistics, Colonial Times to 1970*, series H 767-771, 774, and 776-780]

FIELD OF SCIENCE	1960	1965	1970	1972	1973	1974	1975	1976
Science doctorates conferred.....	6,263	10,477	17,731	18,940	18,948	18,316	18,352	17,872
Engineering.....	794	2,073	3,432	3,475	3,338	3,144	2,959	2,791
Mathematics.....	291	685	1,222	1,281	1,222	1,196	1,149	1,003
Physical sciences.....	1,861	2,865	4,400	4,226	4,016	3,696	3,611	3,442
Physics and astronomy.....	530	1,046	1,655	1,635	1,590	1,334	1,293	1,235
Chemistry.....	1,078	1,444	2,234	2,011	1,849	1,792	1,762	1,623
Earth sciences.....	253	375	511	580	577	570	556	584
Life sciences.....	1,659	2,539	4,163	4,505	4,574	4,407	4,540	4,480
Biological sciences.....	1,245	1,963	3,360	3,580	3,636	3,473	3,498	3,562
Agricultural sciences ¹	414	576	803	855	853	880	904	788
Environmental sciences.....	-	-	-	70	85	104	138	130
Psychology.....	772	954	1,888	2,262	2,444	2,587	2,749	2,878
Social sciences.....	886	1,361	2,626	3,191	3,354	3,286	3,344	3,278
Sociology.....	162	239	504	638	599	645	680	734
Economics.....	341	538	826	863	907	833	867	854
Anthropology.....	69	82	217	260	324	381	385	428
Other social sciences ²	314	502	1,079	1,430	1,524	1,427	1,412	1,282
Graduate enrollment, all fields.....1,000.....	314.3	535.3	816.2	858.6	908.1	965.0	1,053.8	
Science fields.....1,000.....	120.6	195.3	252.2	243.0	244.4	250.7	261.5	
Percent of total.....	38.4	36.5	30.9	28.3	26.9	26.0	24.8	
Agriculture and forestry ¹.....1,000.....	4.4	6.4	8.7	9.6	9.9	10.8	12.6	
Biological sciences ³.....1,000.....	15.3	28.3	37.6	39.5	40.8	43.4	45.5	
Mathematical subjects ⁴.....1,000.....	11.8	21.0	30.6	28.1	27.0	27.1	27.0	(NA)
Physical sciences.....1,000.....	25.7	36.5	40.1	36.0	36.0	34.9	35.5	
Engineering ⁵.....1,000.....	36.6	57.5	64.8	55.8	54.6	56.0	59.3	
Psychology.....1,000.....	10.7	15.6	25.3	29.2	30.9	32.8	35.3	
Social sciences ⁶.....1,000.....	16.1	30.0	45.0	44.8	45.2	45.6	46.3	
Health fields.....1,000.....	5.8	8.9	14.2	23.7	27.3	30.4	35.5	
All other fields.....1,000.....	187.9	331.1	549.8	591.9	636.5	683.9	756.8	

- Represents zero. NA Not available. ¹ Excludes agricultural economics.

² Includes econometrics, statistics, geography, political science and public administration, history and philosophy of science, archeology, linguistics, and agricultural economics.

³ Includes interdisciplinary studies in biological and physical sciences.

⁴ Includes computer and information sciences.

⁵ Includes interdisciplinary studies; excludes engineering technologies.

⁶ Includes agricultural economics, anthropology, archeology, demography, economics, geography, linguistics, political science and government, and sociology.

Source: U.S. National Science Foundation. Data from National Research Council, Doctorate Record File; and U.S. National Center for Education Statistics, *Enrollment for Masters and Higher Degrees*, annual.

NO. 1034. DOCTORAL SCIENTISTS AND ENGINEERS, BY STATES: 1975

[Includes doctoral scientists receiving their degrees between 1932 and June 1974]

STATE	Total	Natural scientists	Social scientists	Engineers	STATE	Total	Natural scientists	Social scientists	Engineers
Total	277,517	163,228	69,864	44,425	Mo.....	4,563	2,986	897	680
Ala.....	2,838	1,592	677	569	Mont.....	968	676	202	90
Alaska.....	407	312	36	59	Nebr.....	1,631	1,098	294	139
Ariz.....	2,917	1,670	769	478	Nev.....	453	267	127	59
Ark.....	1,128	745	329	54	N.H.....	976	558	319	99
Calif.....	31,855	17,280	8,284	6,291	N.J.....	11,658	6,854	1,977	2,827
Colo.....	5,119	3,108	1,199	812	N.Mex.....	3,086	2,182	273	631
Conn.....	5,044	2,745	1,525	774	N.Y.....	28,074	15,828	8,649	3,597
Del.....	3,218	2,453	234	531	N.C.....	5,818	3,728	1,427	663
D.C.....	9,626	4,869	3,551	1,206	N.Dak.....	646	469	126	51
Fla.....	6,277	3,622	1,677	978	Ohio.....	11,807	6,844	2,775	2,188
Ga.....	4,531	2,888	1,188	455	Okla.....	2,572	1,483	526	563
Hawaii.....	1,102	721	314	67	Oreg.....	2,872	1,901	777	194
Idaho.....	1,079	720	198	161	Pa.....	15,279	8,436	3,810	3,033
Ill.....	12,959	7,438	3,670	1,851	R.I.....	1,306	803	328	175
Ind.....	5,796	3,376	1,538	882	S.C.....	2,153	1,412	418	373
Iowa.....	2,663	1,586	717	360	S.Dak.....	615	349	125	41
Kans.....	2,364	1,358	851	155	Tenn.....	4,692	2,941	1,096	655
Ky.....	2,460	1,419	842	199	Tex.....	12,435	7,424	2,495	2,516
La.....	3,229	2,092	548	589	Utah.....	2,541	1,454	550	537
Maine.....	1,039	548	322	169	Vt.....	892	507	292	93
Md.....	8,851	6,422	1,385	1,044	Va.....	7,433	4,196	1,813	1,424
Mass.....	12,098	6,628	3,153	2,317	Wash.....	4,734	2,801	1,199	734
Mich.....	9,664	5,564	2,602	1,498	W.Va.....	1,360	888	300	163
Minn.....	4,788	3,140	1,253	395	Wis.....	5,206	3,170	1,439	597
Miss.....	1,585	941	404	240	Wyo.....	553	308	173	72
					Other areas.....	757	428	182	147

Source: U.S. National Science Foundation, 1975 *Characteristics of Doctoral Scientists and Engineers in the United States*. Data derived from the Doctoral Roster of Scientists and Engineers.

NO. 1035. FEDERAL SPACE PROGRAM—OUTLAYS, BY AGENCY: 1960 TO 1977

[1960-1976, years ending June 30, except as noted; 1977, year ending Sept. 30. NASA = National Aeronautics and Space Administration]

YEAR	Total ¹ (mil. dol.)	NASA ²		Dept. of De- fense (mil. dol.)	ERDA ³ (mil. dol.)	YEAR	Total ¹ (mil. dol.)	NASA ²		Dept. of De- fense (mil. dol.)	ERDA ³ (mil. dol.)
		Total (mil. dol.)	Per- cent of total					Total (mil. dol.)	Per- cent of total		
1960.....	888	329	37.0	513	41	1970.....	5,453	3,565	65.4	1,756	103
1961.....	1,468	604	47.3	710	64	1971.....	4,999	3,171	63.4	1,693	97
1962.....	2,387	1,226	51.4	1,029	130	1972.....	4,772	3,195	67.0	1,470	60
1963.....	4,079	2,517	61.7	1,368	181	1973.....	4,719	3,069	65.0	1,557	51
1964.....	5,900	4,101	69.5	1,564	220	1974.....	4,854	2,960	61.0	1,777	39
1965.....	6,856	5,005	73.0	1,592	232	1975.....	4,891	2,953	60.0	1,829	34
1966.....	7,689	5,828	75.8	1,637	188	1976.....	5,314	3,336	63.0	1,864	26
1967.....	7,208	5,307	73.6	1,673	184	1976, TQ ⁴	1,361	869	64.0	458	8
1968.....	6,647	4,574	68.8	1,890	146	1977.....	5,532	3,383	61.0	2,017	23
1969.....	6,331	4,083	64.5	2,065	117						

¹ Includes agencies not shown separately. ² Excludes amounts for aircraft technology.

³ Energy Research and Development Administration, which replaced the Atomic Energy Commission in 1975.

⁴ Transition quarter, July-Sept.

Source: U.S. National Aeronautics and Space Administration, *Space Report of the President*, annual (Appendix by U.S. Office of Management and Budget).

NO. 1036. EMPLOYMENT ON NASA PROGRAMS: 1960 TO 1977

[In thousands of employees. As of June 30. NASA = National Aeronautics and Space Administration]

YEAR	Total	NASA	Con- trac- tors ¹	YEAR	Total	NASA	Con- trac- tors ¹	YEAR	Total	NASA	Con- trac- tors ¹
1960.....	46.8	10.3	36.5	1966.....	393.9	33.9	360.0	1972.....	138.8	27.5	111.3
1961.....	74.6	17.1	57.5	1967.....	306.9	33.7	273.2	1973.....	134.9	26.9	108.0
1962.....	137.7	22.2	115.5	1968.....	267.9	32.5	235.4	1974.....	125.2	25.0	100.2
1963.....	246.3	27.9	218.4	1969.....	218.3	31.7	186.6	1975.....	127.7	24.3	103.4
1964.....	379.1	32.0	347.1	1970.....	160.9	31.4	129.5	1976.....	132.0	24.0	108.0
1965.....	409.9	33.2	376.7	1971.....	143.6	29.5	114.1	1977, est.....	122.4	23.8	98.6

¹ Employment by private firms with contracts to perform for NASA.

Source: Aerospace Industries Association of America, Inc., Washington, D.C., *Aerospace Facts and Figures, 1977/78* (copyright).

No. 1037. NATIONAL AERONAUTICS AND SPACE ADMINISTRATION—OUTLAYS FOR RESEARCH AND DEVELOPMENT: 1965 TO 1977

[In millions of dollars. 1965-1976, years ending June 30, except as noted; 1977, year ending Sept. 30. Performance includes research and development, and research and program management]

YEAR	PERFORMANCE				FACILITIES			
	Total	Manned space flight	Space science, applications, technology	Air transport and other	Total	Manned space flight	Space science, applications, technology	Air transport and other
1965	4,562	3,138	1,126	298	531	401	78	52
1966	5,361	3,819	1,120	422	572	391	63	118
1967	5,137	3,477	1,160	500	289	172	47	70
1968	4,599	3,028	1,061	510	127	69	29	29
1969	4,187	2,764	893	540	65	27	21	17
1970	3,699	2,195	963	541	54	14	21	19
1971	3,338	1,877	926	535	44	8	6	30
1972	3,373	1,727	1,111	535	50	13	7	30
1973	3,271	1,532	1,220	519	45	5	11	29
1974	3,181	1,448	1,156	577	75	25	12	38
1975	3,181	1,500	1,076	606	85	35	9	42
1976	2,749	1,583	714	451	121	66	11	43
1976, TQ ¹	731	423	188	120	26	13	2	10
1977, est.	2,737	1,617	680	440	125	61	7	58

¹ Transition quarter, July-Sept.

Source: U.S. Office of Management and Budget, *The Budget of the United States Government*, annual.

No. 1038. SPACE VEHICLE SYSTEMS—SALES AND BACKLOG ORDERS: 1965 TO 1976

[In millions of dollars. Based on data from approximately 55 companies engaged in manufacture of aerospace products. Excludes engines and propulsion units]

YEAR	NET SALES			BACKLOG ORDERS ¹			YEAR	NET SALES			BACKLOG ORDERS ¹		
	Total	Military	Non-military	Total	Military	Non-military		Total	Military	Non-military	Total	Military	Non-military
1965	2,449	602	1,847	2,203	503	1,700	1971	1,725	860	865	916	603	313
1966	2,710	734	1,976	1,494	428	1,066	1972	1,656	905	751	959	646	313
1967	2,199	789	1,410	1,974	1,096	878	1973	1,562	902	660	1,177	923	254
1968	2,357	899	1,458	1,329	834	495	1974	1,751	944	807	1,492	1,131	361
1969	2,282	1,187	1,095	1,330	869	461	1975	2,119	1,096	1,023	1,304	1,019	285
1970	1,956	1,025	931	1,184	786	398	1976	2,062	981	1,081	1,220	894	326

¹ As of Dec. 31.

Source: Aerospace Industries Association of America, Inc., Washington, D.C., *Aerospace Facts and Figures, 1977/78* (copyright).

No. 1039. SPACECRAFT LAUNCHINGS: 1957 TO 1976

[Criterion of success is attainment of Earth orbit or Earth escape. A spacecraft is a vehicle which is intended to go beyond the Earth's atmosphere]

YEAR	UNITED STATES				U.S.S.R. successful launchings	YEAR	UNITED STATES				U.S.S.R. successful launchings
	Earth orbit		Earth escape				Earth orbit		Earth escape		
	Success	Failure	Success	Failure			Success	Failure	Success	Failure	
Total	765	107	53	13	972	1966	95	12	5	1	51
1957	-	1	-	-	2	1967	77	4	10	-	67
1958	5	8	-	4	1	1968	61	3	3	-	74
1959	9	9	1	2	3	1969	50	1	8	-	70
1960	16	12	1	2	3	1970	29	1	1	-	81
1961	35	12	-	12	7	1971	26	2	3	1	84
1962	54	12	4	1	21	1972	32	-	3	-	89
1963	60	11	-	-	18	1973	22	1	3	-	107
1964	69	8	4	-	33	1974	-	-	-	-	95
1965	94	8	3	-	73	1975	17	2	2	-	88
						1976	14	-	2	-	99

- Represents zero. ¹ Attained Earth orbit and included in Earth orbit success totals.

Source: Report to the Congress from the President of the United States, *U.S. Aeronautical and Space Activities*, annual.

NO. 1040. ORBITAL MANNED SPACECRAFT: 1961 THROUGH DECEMBER 1976

VEHICLE, DIMENSIONS (H=height, D=diameter), ASTRONAUT	UNITED STATES				VEHICLE, DIMENSIONS (H=height, D=diameter), ASTRONAUT	U.S.S.R.			
	Laun- ch (mo., yr.)	Pay- load (1,000 lb.)	Earth rev- olu- tions ¹	Life- time (hr.: min.)		Laun- ch (mo., yr.)	Pay- load (1,000 lb.)	Earth rev- olu- tions ¹	Life- time (hr.: min.)
Mercury Atlas: (26'H-6'D) ²					Vostok (East):				
6...Glenn.....	2-62	³ 4.3	3	4:55	I... (20'H) Gagarin.....	4-61	10.4	1	1:48
7...Carpenter.....	5-62	³ 4.2	3	4:56	II... (20'H-12-14'D) Titov.....	8-61	10.4	16	25:18
8...Schirra.....	10-62	³ 4.3	6	9:13	III... Nikolayev.....	8-62	10.4	60	94:22
9...Cooper.....	5-63	³ 4.0	22	34:19	IV... Popovich.....	8-62	10.4	45	70:57
Gemini: (19'H-10'D) ⁴					V... Bykovskiy.....	6-63	10.4	78	119:06
3...Grissom, Young.....	3-65	7.1	3	4:53	VI... Tereshkova.....	6-63	10.4	45	70:50
4...McDivitt, White.....	6-65	7.9	62	97:56	Voshkod (Sunrise):				
5...Cooper, Conrad.....	8-65	7.9	120	190:55	I... Komarov, Yegorov, Feoktistov.....	10-64	11.7	15	24:17
6...Schirra, Stafford.....	12-65	7.8	16	25:51	II... Belyayev, Leonov.....	3-65	12.5	16	26:02
7...Borman, Lovell.....	12-65	8.1	206	330:35	Soyuz (Union):				
8...Armstrong, Scott.....	3-66	8.4	6.6	10:41	I... Komarov ¹⁶	4-67	14.2	17	26:37
9...Cernan, Stafford.....	6-66	8.1	45	72:21	III... Beresgovoy.....	10-68	14.5	60	94:51
10...Young, Collins.....	7-66	8.3	43	70:46	IV... Shtalov.....	1-69	14.6	45	71:23
11...Conrad, Gordon.....	9-66	8.4	44	71:17	V... Volynov, Yeliseyev, Krunov.....	1-69	14.5	46	72:56
12...Lovell, Aldrin.....	11-66	8.3	59	94:34	VI... Shonin, Kubasov.....	10-69	14.5	75	118:42
Apollo: (82'H-21.7'D) ⁵					VII... Filipchenko, Volkov, Gorbalko.....	10-69	14.5	75	118:41
7...Schirra, Eisele, Cunningham.....	10-68	36.4	163	260:09	VIII... Shtalov, Yeliseyev.....	10-69	14.7	75	118:50
8...Borman, Lovell, Anders.....	12-68	87.4	⁶ 2	147:00	IX... Nikolayev, Sevastyanov ¹⁷	6-70	14.3	268	424:59
9...McDivitt, Scott, Schweickart.....	3-69	95.2	151	241:01	X... Shtalov, Yeliseyev, Ru- kavishnikov ¹⁷	4-71	14.5	30	47:46
10...Stafford, Young, Cernan.....	5-69	98.3	⁷ 2	192:03	XI... Dobrovolskiy, Volkov, Patsayev ¹⁸	6-71	14.5	359	570:22
11...Armstrong, Col- lins, Aldrin.....	7-69	100.8	⁸ 2	195:18	XII... Lazarev, Makarov.....	9-73	14.5	29	47:16
12...Conrad, Gordon, Bean.....	11-69	101.1	⁹ 2	244:36	XIII... Mishuk, Lobedev.....	12-73	14.5	116	188:55
13...Lovell, Swigert, Haise.....	4-70	101.3	¹⁰ 2	142:54	XIV... Popovich, Artyukhin ¹⁹	7-74	14.5	236	377:30
14...Shepard, Roosa, Mitchell.....	1-71	102.1	¹¹ 2	216:02	XV... Sarafanov, Demin.....	8-74	14.5	30	48:12
15...Scott, Worden, Irwin.....	7-71	107.1	¹² 2	295:12	XVI... Filipchenko, Rukavishni- kov ²⁰	12-74	14.5	90	142:24
16...Young, Mattingly, Duke.....	4-72	107.2	¹³ 2	265:51	XVII... Gubarev, Brehko ²¹	1-75	14.5	426	709:20
17...Cernan, Evans, Schmitt.....	12-72	107.2	¹⁴ 2	301:52	XVIII... Klimuk, Sevastyanov ²¹	5-75	14.5	930	1,511:20
Skylab: (35'H-13'D) ¹⁵					XIX... Leonov, Kubasov (Apollo-Soyuz).....	7-75	15.0	90	142:31
SL-2...Conrad, Kerwin, Weitz.....	5-73	30.8	404	672:49	XXI... Volynov Zholobov ²²	7-76	14.5	741	1,182:24
SL-3...Bean, Garriot, Lousma.....	7-73	30.8	868	1,427:09	XXII... Bykovskiy Aksenov.....	9-76	14.5	119	189:54
SL-4...Carr, Gibson, Pogue.....	11-73	30.8	1,214	2,017:16	XXIII... Zhdov, Rozh- destvenskiy.....	10-76	14.5	30	48:06
Apollo-Soyuz: (44'H- 12.8'D)									
Stafford, Brand, Slayton.....	7-75	32.1	138	217:28					

¹ A revolution is the distance a spacecraft must travel to return to a specified line of Earth longitude.
² Vehicle lift-off weight, 260,000 lb.; dimensions, 93'H-16'D.
³ Recovery weight (in lb.): 2,400, 2,480, 2,440, and 2,460, respectively. ⁴ Vehicle lift-off weight, 340,000 lb.; dimensions, 109'H-10'D; payload recovery weight, 4,700 lb. ⁵ Vehicle lift-off weight, 6,500,000 lb.; maximum dimensions, 363'H-33'D; payload recovery weight, 11,700 lb. ⁶ Two Earth and 10 lunar orbits, 70 statute miles above the Moon. ⁷ Two Earth orbits plus 30.8 lunar orbits by the command and lunar excursion modules; time in lunar orbit, 61 hr., 41 min. ⁸ Two Earth revolutions and 30 lunar revolutions at 70 miles; first manned lunar landing; 47.8 lb. of rocks returned; astronauts on lunar surface 21 hr. 36 min. ⁹ Two Earth revolutions and 44.5 lunar revolutions at 70 miles; second manned lunar landing; about 75 lb. of rocks returned; astronauts on Earth revolutions and 34 Moon revolutions; 33½ hr. on surface of Moon. ¹⁰ Two Earth orbits and 74 lunar revolutions; 66 hr. and 55 min. on lunar surface. ¹¹ Two Earth revolutions and 65 lunar revolutions; astronauts on surface 71 hr. and 12 min. ¹² Two and one-third Earth revolutions and 75 Moon revolutions; astronauts on surface for 76 hr. ¹³ All Skylab crews docked the Apollo spacecraft with the 187,000 lb. space station in Earth orbit. ¹⁴ Cosmonaut died when spacecraft depressurized because of faulty seal in hatch after undocking from Salyut 1. ¹⁵ Dimensions, 37.9' H-11.2' D. ¹⁶ Manned visit to Salyut 1 space station; cosmonauts killed Salyut 1. ¹⁷ Dimensions, 37.9' H-11.2' D. ¹⁸ Manned visit to Salyut 1. ¹⁹ Manned visit to Salyut 3. ²⁰ Precursor mission to Apollo/Soyuz Joint Mission. ²¹ Manned visit to Salyut 4. ²² Manned visit to Salyut 5.

Source: U.S. National Aeronautics and Space Administration, *Space Activities Summary*, various dates. For U.S.S.R., U.S. Senate Committee on Aeronautical and Space Sciences, *Soviet Space Programs, 1971-76* (staff report by the Congressional Research Service); 1976 data, *Aeronautics and Space Report of the President: 1976 Activities*.