APPROXIMATE CONVERSION MEASURES

[For assistance on metric usage, call or write the Office of Metric Programs, U.S. Department of Commerce, Washington, DC 20230 (301-975-3690)]

Symbol	When you know conventional	Multiply by	To find metric	Symbol
in	inch	2.54	centimeter	cm
ft	foot	30.48	centimeter	cm
yd	yard	0.91	meter	m
mi	mile	1.61	kilometer	km
in^2	square inch	6.45	square centimeter	cm^2
ft^2	square foot	0.09	square meter	m^2
yd^2	square yard	0.84	square meter	m^2
mi^2	square mile	2.59	square kilometer	km^2
	acre	0.41	hectare	ha
oz	ounce [1]	28.35	gram	g
lb	pound[1]	.45	kilograms	kg
oz (troy)	ounce [2]	31.10	gram	g
	short ton (2,000 lbs)	0.91	metric ton	t
	long ton (2,240 lbs)	1.02	metric ton	t
fl oz	fluid ounce	29.57	milliliter	mL
c	cup	0.24	liter	L
pt	pint	0.47	liter	L
qt	quart	0.95	liter	L
gal	gallon	3.78	liter	L
ft^3	cubic foot	0.03	cubic meter	m^3
yd^3	cubic yard	0.76	cubic meter	m^3
F	degrees Fahrenheit (subtract 32)	0.55	degrees Celsius	C

Symbol	When you know metric	Multiply by	To find conventional	Symbol
cm	centimeter	0.39	inch	in
cm	centimeter	0.33	foot	ft
m	meter	1.09	yard	yd
km	kilometer	0.62	mile	mi
cm^2	square centimeter	0.15	square inch	in^2
m^2	square meter	10.76	square foot	ft^2
m^2	square meter	1.20	square yard	yd^2
km^2	square kilometer	0.39	square mile	mi^2
ha	hectare	2.47	acre	
g	gram	.035	ounce [1]	oz
kg	kilogram	2.21	pounds	lb[1]
g	gram	.032	ounce [2]	oz (troy)
t	metric ton	1.10	short ton (2,000 lbs)	
t	metric ton	0.98	long ton (2,240 lbs)	
mL	milliliter	0.03	fluid ounce	fl oz
L	liter	4.24	cup	c
L	liter	2.13	pint (liquid)	pt
L	liter	1.05	quart (liquid)	qt
L	liter	0.26	gallon	gal
m^3	cubic meter	35.32	cubic foot	ft^3
m^3	cubic meter	1.32	cubic yard	yd^3
C	degrees Celsius	1.80	degrees Fahrenheit (after subtracting 32)	F

[1] For weighing ordinary commodities. [2] For weighing precious metals, jewels, etc.

Example of table structure:

No. 598. State and Local Government Retirement Systems—Beneficiaries and Finances: 1980 to 1991

[**In millions of dollars, except as indicated.** For fiscal years closed during the 12 months ending June 30]

YEAR AND LEVEL OF GOVERNMENT	Number of beneficiaries (1,000)	RECEIPTS					BENEFITS AND WITHDRAWALS			Cash and security holdings
		Total	Employee contributions	Government contributions		Earnings on investments	Total	Benefits	Withdrawals	
				State	Local					
1980: All systems	(NA)	37,313	6,466	7,581	9,951	13,315	14,008	12,207	1,801	185,226
State-administered	(NA)	28,603	5,285	7,399	5,611	10,308	10,257	8,809	1,448	144,682
Locally administered	(NA)	8,710	1,180	181	4,340	3,008	3,752	3,399	353	40,544
1985: All systems	3,378	71,411	9,468	12,227	15,170	34,546	24,413	21,999	2,414	374,433
State-administered	2,661	55,960	7,901	11,976	8,944	27,139	18,230	16,183	2,047	296,951
Locally administered	716	15,451	1,567	251	6,226	7,407	6,183	5,816	367	77,481
1990: All systems	4,026	111,339	13,853	13,994	18,583	64,907	38,396	35,966	2,430	703,772
State-administered	3,232	89,162	11,648	13,964	11,538	52,012	29,603	27,562	2,041	565,641
Locally administered	794	22,177	2,205	32	7,045	12,895	8,793	8,404	389	138,131
1991: All systems	4,179	108,240	16,268	14,473	18,691	58,808	42,028	39,421	2,607	783,405
State-administered	3,357	85,576	12,563	14,455	11,553	47,006	32,323	30,167	2,156	630,551
Locally administered	822	22,664	3,705	18	7,138	11,803	9,706	9,255	451	152,854

NA Not available.
Source: U.S. Bureau of the Census, *Finances of Employee-Retirement Systems of State and Local Governments*, series GF, No. 2, annual.

Headnotes immediately below table titles provide information important for correct interpretation or evaluation of the table as a whole or for a major segment of it.

Footnotes below the bottom rule of tables give information relating to specific items or figures within the table.

Unit indicators show the *specified quantities* in which data items are presented. They are used for two primary reasons. Sometimes data are not available in absolute form and are estimates (as in the case of many surveys). In other cases we round the numbers in order to save space to show more data, as in the case above.

EXAMPLES OF UNIT INDICATOR INTERPRETATION FROM TABLE 598

Year	Item	Unit Indicator	Number shown	Multiplier
1991	Beneficiaries	Thousands	4,179	1,000
1991	Receipts	$ Millions	108,240	1,000,000

To Determine the Figure it Is Necessary to Multiply the Number Shown by the Unit Indicator:

Beneficiaries = 4,179 * 1,000 or 4,179,000 (over 4 million).
Receipts = 108,240 * 1,000,000 or 108,240,000,000 (over 108 billion).

When a table presents data with more than one unit indicator, they are found in the headnotes and column headings (shown above), spanner (table 53), stub (table 76), or unit column (table 75). When the data in a table are shown in the same unit indicator, it is shown in boldface as the first part of the headnote (table 2). If no unit indicator is shown, data presented are in absolute form (table 1).

Heavy vertical rules are used to separate independent sections of a table, as shown above, or in tables where the stub is continued into one or more additional columns (table 4).

Averages. An average is a single number or value that is often used to represent the "typical value" of a group of numbers. It is regarded as a measure of "location" or "central tendency" of a group of numbers.

The *arithmetic mean* is the type of average used most frequently. It is derived by summing the individual item values of a particular group and dividing the total by the number of items. The arithmetic mean is often referred to as simply the "mean" or "average."

The *median* of a group of numbers is the middle number or value when each item in the group is arranged according to size (lowest to highest or visa versa); it generally has the same number of items above it as well as below it. If there is an even number if items in the group, the median is taken to be the average of the two middle numbers.

Per capita (or per person) quantities. A per capita figure represents an average computed for every person in a specified group (or population). It is derived by taking the total for an item (such as income, taxes,

or retail sales) and dividing it by the number of persons in the specified population.

Index numbers. An index number is the measure of difference or change, usually expressed as a percent, relating one quantity (the variable) of a specified kind to another quantity of the same kind. Index numbers are widely used to express changes in prices over periods of time but may also be used to express differences between related subjects for a single point in time.

To compute a price index, a base year or period is selected. The base year price (of the commodity or service) is then designated as the base or reference price to which the prices for other years or periods are related. Many price indexes use the year 1982 as the base year; in tables this is shown as ''1982=100''. A method of expressing the price relationship is: The price of a set of one or more items for a related year (e.g. 1990) **divided by** the price of the same set of items for the base year (e.g. 1982). The result multiplied by 100 provides the index number. When 100 is subtracted from the index number, the result equals the percent change in price from the base year.

Average annual percent change. Unless otherwise stated in the *Abstract* (as in Section 1, Population), average annual percent change is computed by use of a *compound interest formula.* This formula assumes that the rate of change is constant throughout a specified compounding period (one year for average annual rates of change). The formula is similar to that used to compute the balance of a savings account which receives compound interest. According to this formula, at the end of a compounding period the amount of accrued change (e.g. school enrollment or bank interest) is added to the amount which existed at the beginning the period. As a result, over time (e.g., with each year or quarter), the same rate of change is applied to a larger and larger figure.

The *exponential formula,* which is based on continuous compounding, is often used to measure population change. It is preferred by population experts because they view population and population-related subjects as changing without interruption, ever ongoing. Both exponential and compound interest formulas assume a constant rate of change. The former, however, applies the amount of change continuously to the base rather than at the end of each compounding period. When the average annual rates are small (e.g., less than 5 percent) both formulas give virtually the same results. For an explanation of these two formulas as they relate to population, see U.S. Bureau of the Census, *The Methods and Materials of Demography,* vol. 2, 3d printing (rev.), 1975, pp. 372-381.

Current and constant dollars. Statistics in some tables in a number of sections are expressed in both current and constant dollars (see, for example, table 713 in section 14). Current dollar figures reflect actual prices or costs prevailing during the specified year(s). Constant dollar figures are estimates representing an effort to remove the effects of price changes from statistical series reported in dollar terms. In general, constant dollar series are derived by dividing current dollar estimates by the appropriate price index for the appropriate period (for example, the Consumer Price Index). The result is a series as it would presumably exist if prices were the same throughout, as in the base year—in other words as if the dollar had constant purchasing power. Any changes in this constant dollar series would reflect only changes in real volume of output, income, expenditures, or other measure.

Explanation of Symbols:

The following symbols, used in the tables throughout this book, are explained in condensed form in footnotes to the tables where they appear:

- Represents zero or rounds to less than half the unit of measurement shown.

B Base figure too small to meet statistical standards for reliability of a derived figure.

D Figure withheld to avoid disclosure pertaining to a specific organization or individual.

NA Data not enumerated, tabulated, or otherwise available separately.

NS Percent change irrelevant or insignificant.

S Figure does not meet publication standards for reasons other than that covered by symbol B, above.

X Figure not applicable because column heading and stub line make entry impossible, absurd, or meaningless.

Z Entry would amount to less than half the unit of measurement shown.

In many tables, details will not add to the totals shown because of rounding.

Telephone Contacts List

To help *Abstract* users find more data and information about statistical publications, we are issuing this list of contacts for Federal agencies with major statistical programs. The intent is to give a single, first-contact point-of-entry for users of statistics. These agencies will provide general information on their statistical programs and publications, as well as specific information on how to order their publications.

Executive Office of the President

Office of Management and Budget
Administrator
Office of Information and Regulatory Affairs
Office of Management and Budget
Washington, DC 20503
Information: 202-395-3000
Publications: 202-395-7332

Department of Agriculture

Economic Research Service
Research Support and Training Branch
U.S. Department of Agriculture
Room 110
1301 New York Ave., N.W.
Washington, DC 20005-4788
Information and Publications: 202-219-0515

National Agricultural Statistics Service
National Agricultural Statistics Service
U.S. Department of Agriculture
14th St. and Independence Ave., S.W.
Washington, DC 20250
Information Hotline: 1-800-727-9540

Department of Commerce

U.S. Department of Commerce
Room 5056 Main Commerce
14th St. and Constitution Ave., N.W.
Washington, DC 20230
Newsroom: 202-482-5007

Bureau of the Census
Customer Services Branch
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
Information and Publications: 301-457-4100

Bureau of Economic Analysis
Current Business Analysis Division, BE-53
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, DC 20230
Information and Publications: 202-606-9900

Department of Commerce —Con.

International Trade Administration
Trade Statistics Division .
International Trade Administration
Room 2814 B
U.S. Department of Commerce
Washington, DC 20230
Information and Publications: 202-482-2185

National Oceanic and Atmospheric Administration
National Oceanic and Atmospheric Administration Library
U.S. Department of Commerce
1315 East-West Highway
2nd Floor
Silver Spring MD 20910
Library: 301-713-2600

Department of Defense

Department of Defense
Office of the Assistant to the Secretary of Defense (Public Affairs)
Attention: Directorate for Public Correspondence
The Pentagon, 1E794
Washington, DC 20301-1400
Information: 703-697-5737

Department of Education

Office of Information Services
Statistical Information Office
U.S. Department of Education
555 New Jersey Ave., N.W.
Washington, DC 20208-5641
Information and Publications: 1-800-424-1616

Department of Energy

Energy Information Administration
National Energy Information Center
Energy Information Administration
U.S. Department of Energy
Washington, DC 20585
Information and Publications: 202-586-8800

Department of Health and Human Services

Health Resources and Services Administration

Administrator for Health Resources and Services
Health Resources and Services Administration
U.S. Department of Health and Human Services
5600 Fishers Lane
Room 14-45
Rockville, MD 20857
Publications: 301-443-2086

Substance Abuse Mental Health Services Administration

U.S. Department of Health and Human Services
5600 Fishers Lane
Room 12C105
Rockville, MD 20857
Information: 301-443-0365
Publications: 1-800-729-6686

Centers for Disease Control

Office of Information
Centers for Disease Control
21600 Clifton Road, N.E.
Atlanta, GA 30333
Public Inquiries: 404-639-3534

Health Care Financing Administration

Office of Public Affairs
Health Care Financing Administration
U.S. Department of Health and Human Services
Room 428H, Humphrey Building
200 Independence Ave., S.W.
Washington, DC 20201
Media Relations: 202-690-6145

National Center for Health Statistics

Scientific and Technical Information Branch
National Center for Health Statistics
U.S. Department of Health and Human Services
6525 Belcrest Rd. Rm. 1064
Hyattsville, MD 20782
Information and Publications: 301-436-8500

Social Security Administration

Publications Staff
Office of Research and Statistics
Social Security Administration
U.S. Department of Health and Human Services
Van Ness Centre, Room 209
4301 Connecticut Ave., N.W.
Washington, DC 20008
Information and Publications: 202-282-7138

Department of Housing and Urban Development

Assistant Secretary for Community Planning and Development

Office of the Assistant Secretary for Community Planning and Development
U.S. Department of Housing and Urban Development
451 7th St., S.W.
Washington, DC 20410-0555
Information: 202-708-2690
Publications: 1-800-245-2691

Department of the Interior

Bureau of Mines

Office of Public Information
Bureau of Mines
U.S. Department of the Interior .
Washington, DC 20241
Information: 202-501-9649
Publications: 202-501-9757

Geological Survey

Public Inquiries Office
Geological Survey
U.S. Department of the Interior
507 National Center
Reston, VA 22092
Information and Publications: 703-648-6892

Department of Justice

Bureau of Justice Statistics

Statistics Division
Bureau of Justice Statistics
U.S. Department of Justice
633 Indiana Ave., N.W.
Washington, DC 20531
Information and Publications: 202-307-6100

National Criminal Justice Reference Service

Box 6000
Rockville, MD 20850
Information and Publications: 301-251-5500
Publications: 1-800-732-3277

Federal Bureau of Investigation

National Crime Information Center
Federal Bureau of Investigation
U.S. Department of Justice
9th St. and Pennsylvania Ave., N.W.
Washington, DC 20535
Information and Publications: 202-324-3691
Publications: 202-324-5343

Immigration and Naturalization Service

Statistics Branch
Immigration and Naturalization Service
U.S. Department of Justice
425 I St., N.W.
Washington, DC 20536
Attention: Tariff Bldg. Rm. 235
Information and Publications: 202-376-3066

Department of Labor

Bureau of Labor Statistics

Office of Publications and Information Services
Bureau of Labor Statistics
U.S. Department of Labor
441 G St., N.W., Room 2831A
Washington, DC 20212
Information and Publications: 202-606-7828

Employment and Training Administration

Office of Public Information
Employment and Training Administration
U.S. Department of Labor
200 Constitution Ave., N.W., Room N4700 .
Information and Publications: 202-219-6871

Department of Transportation

Federal Aviation Administration

Public Inquiry Center
APA 200
Federal Aviation Administration
U.S. Department of Transportation
800 Independence Ave., S.W.
Washington, DC 20591
Information and Publications: 202-267-3484

Federal Highway Administration

Office of Public Affairs
Federal Highway Administration
U.S. Department of Transportation
400 7th St., S.W.
Washington, DC 20590
Information: 202-366-0660

National Highway Traffic Safety Administration

Office of Public Affairs
National Highway Traffic Safety Administration
U.S. Department of Transportation
400 7th St., S.W.
Washington, DC 20590
Information: 202-366-0123
Publications: 202-366-2588

Department of the Treasury

Internal Revenue Service

Statistics of Income Division
Internal Revenue Service
U.S. Department of the Treasury
P.O. Box 2608
Washington, DC 20013
Information and Publications: 202-874-0410

Department of Veterans Affairs

Department of Veterans Affairs

Office of Public Affairs
Department of Veterans Affairs
810 Vermont Ave., N.W.
Washington, DC 20420
Information: 202-273-5700

Independent Agencies

Environmental Protection Agency

Public Information Center, Rm. 3404
Environmental Protection Agency
401 M St., S.W.
Washington, DC 20460
Information: 202-260-2080

Federal Reserve Board

Division of Research and Statistics
Federal Reserve Board
Washington, DC 20551
Information: 202-452-3301 .

National Science Foundation

Office of Public Information
National Science Foundation
4201 Wilson Boulevard.
Arlington Virginia 22230
Information: 703-306-1234
Publications: 703-306-1130

Securities and Exchange Commission

Office of Public Affairs
Securities and Exchange Commission
450 5th St., N.W.
Washington, DC 20549
Information: 202-942-0020
Publications: 202-942-4040