

WORLD-WIDE DEFENSE EXPENDITURES AND SELECTED ECONOMIC DATA

CALENDAR YEAR 1964

Research Report 66-1

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This report for 1964 is the first in what is intended to be a series issued annually by the Economics Bureau of ACDA. The national statistics available at present are in many cases extremely rough and not wholly comparable; they should be read as approximations. It is hoped that these statistics can be improved in future reports.

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WORLD-WIDE DEFENSE EXPENDITURES AND SELECTED ECONOMIC DATA, 1964

Introduction

This report provides from a variety of sources as complete a tabulation of national defense expenditures as is now possible. The tables immediately following the text show on a very rough comparative basis military expenditures, population, gross national product, and official expenditures on public education and health for each of 120 countries. Where available, official foreign economic aid expenditures are also shown.

It should be emphasized that the data are of varying degrees of reliability and comparability. Some of the national statistics are derived from fragmentary source materials and are extremely crude estimates. The conversion of national currencies into dollars is a further source of error and inconsistency. It has been possible in only some cases to make these conversions on the basis of realistic purchasing power equivalents; for most countries official exchange rates have been used to convert from national currencies to dollars.

Efforts will be made to refine the methodology in future annual tabulations. Meanwhile, caution is urged in making detailed country-to-country comparisons and interpretations. The figures do, however, give some insights of a general nature into the size, distribution, and relative burden of national defense programs.

Some of the more striking features of the summary figures are given below. An appendix on statistical methods and concepts treats in detail the qualifications of the data.

Defense Expenditures^{1/}

World-wide. In 1964 global defense expenditures appear to have exceeded \$130 billion, an average of more than \$40 per capita. This suggests some increase in total defense spending since the estimate of \$120 billion was made by United Nations (UN) specialists in 1962. Although available national figures bear out this rise in the world total, direct comparisons with the UN study cannot be made since it did not contain a breakdown by countries in dollar equivalents.

Major Powers and Military Alliances. One characteristic of the 1964 pattern of defense expenditures (and for prior years as well) is its essentially bi-polar nature. Defense expenditures of the two major powers, the United States and the Soviet Union, accounted for nearly \$90 billion, or close to two-thirds of the world total.

The two major military alliances, the North Atlantic Treaty Organization (NATO) and the Warsaw Pact, accounted for an estimated 85 percent of world total expenditures. NATO defense expenditures amounted to \$73 billion, whereas Warsaw Pact expenditures are estimated to have exceeded \$40 billion in terms of equivalent purchasing power.

^{1/} "Defense expenditures" are defined in this paper to mean total military expenditures of national defense agencies, as well as the military component of mixed civilian-military activities such as atomic energy. Excluded are expenditures for civilian space activities and civil defense. Except for the Warsaw Pact countries (for which rough purchasing power equivalents are used) defense expenditures in national currencies are generally converted into dollars at official exchange rates.

Less Developed Countries.^{2/} Total defense expenditures in 1964 for the economically less developed countries (LDC's) amounted to roughly \$16 billion, or 12 percent of the world total.

Available evidence indicates that in recent years defense expenditures among the LDC's have risen at a much faster rate than those of the developed countries. Since 1960 the total increase in defense expenditures by LDC's is estimated at more than 50 percent, compared to less than 30 percent for the developed countries. Statistics on recent trends in gross national product and defense expenditures for selected LDC's are shown in Table 4 of this study.

Economic Cost of Defense

Gross National Product.^{3/} One measure of the economic cost of defense is the relation of military expenditures to gross national product (GNP). Defense expenditures absorbed about 7 percent of the world's total output of goods and services in

^{2/} For this report, "less developed" countries include the following: Albania, Bulgaria, Greece, Portugal, Spain, Turkey, Yugoslavia, all of the Near East and South Asia, all of the Far East except Japan, all of Latin America, and all of Africa except the Republic of South Africa. (Mainland China, with an estimated per capita income of about \$95, is among the LDC's). All other countries as a group are referred to as "developed". These are: all NATO members excluding Greece, Portugal, and Turkey; all Warsaw Pact members excluding Albania and Bulgaria; Australia, Japan, New Zealand, and the Republic of South Africa.

^{3/} Gross national product is defined as an economy's total output of goods and services, valued at current market prices paid by the ultimate consumer.

1964.

Among individual countries, the ratio of defense expenditures to GNP ranged from less than 1 percent to more than 16 percent. Without reference to the level of economic development in a country, these ratios are inadequate as measures of comparative economic cost.

In the less developed countries, average per capita incomes were less than \$150, compared to over \$1700 in the developed countries. Relative to per capita income, the cost of defense per person was almost as large in the LDC's as it was in the developed countries. It is particularly in countries with relatively low per capita incomes that the diversion of scarce resources from nondefense to defense sectors may be expected to affect adversely the attainment of economic goals.

Domestic Investment.^{4/} Domestic investment is one economic sector competing with defense for the allocation of national economic resources. It is also an important factor in stimulating future economic growth. Though detailed national data are not available at this time for inclusion in the statistical tables, rough estimates suggest that about 20 percent of the world's output goes to investment in fixed assets such as roads, port facilities, and industrial equipment. This compares to about 7 percent of the world's output going to defense. In many of the less developed countries private consumption and defense take

^{4/} "Domestic investment" is defined in this report as the value of purchases and own account construction of fixed assets by enterprises, non profit organizations, and government. Expenditures of a capital nature by governments for defense (excluding civil defense) are treated as government consumption expenditures. Generally, the value of physical changes in stocks is included.

a high proportion of total output, leaving relatively little of the national product for investment in development. Some of the LDC's, such as Indonesia, Jordan, and the Syrian Arab Republic, allocate unusually large shares of their national product to defense and are able to allocate relatively few resources to public investment.

Other Comparative Economic Data

Foreign Economic Aid.^{5/} The amount of official foreign economic aid extended in 1964 was relatively small compared to the world's expenditures on defense. Donor countries, including the Communist countries, and international agencies spent less than \$8 billion for foreign economic assistance to all less developed countries in the free world. This is equivalent to about 6 percent of the world's defense expenditures. NATO accounted for about 75 percent of the official aid extended to the free world LDC's.

In 1964, total official economic assistance received was roughly one-half of the defense expenditures of the LDC's. With an external debt amounting to more than 15 percent of their combined output of goods and services, the LDC's paid out debt service charges of over \$4 billion in 1964, or about one-half of all the new economic aid extended to them in that year.

^{5/} Foreign economic aid is defined as combined official bilateral and multilateral assistance, and excludes assistance from non-government sources.

Expenditures on Public Education and Health. World-wide expenditures on public education and health in 1964 were equivalent to \$125 billion, or close to total defense expenditures for the same year. Taking public education alone, world outlays were only two-thirds of those for defense.

Except for the United States and the Soviet Union, reported national expenditures on public education and health somewhat understate actual public outlays for these services because spending by provincial and local governments, which in most countries is considerable, is excluded. Private outlays for education and health, which are significant in some Western countries, are also not included.

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (In thousands)	Gross national product (GNP) ^{1/} (In thousands)	Defense		Foreign economic aid		Public education expenditures ^{4/} (In millions of U.S. dollar equivalents)	Public health expenditures ^{4/} (In millions of U.S. dollar equivalents)
			Expenditures ^{2/}	Percent of GNP	Expenditures ^{3/}	Percent of GNP		
<u>North America</u>								
United States	192,119	*\$628,700	*\$51,323	8.2%	\$3,860	0.6%	\$30,400 ^{6/}	\$10,000 ^{6/}
Canada	19,237	* 43,480	* 1,678	3.9	129	0.3	2,600	1,300 ^{6/}
Total - - - - -	211,356	672,180	53,001	8.0	3,989	0.6	33,000	11,300
<u>Europe</u>								
<u>NATO Countries</u>								
Belgium	9,355	* 15,260	* 497	3.3	80	0.5	700	225
Denmark	4,795	* 8,940	* 255	2.9	11	0.1	300	190
France	48,416	* 86,000	* 4,918	5.7	841	1.0	2,950	1,000
Germany, West ^{7/}	57,097	* 99,270	* 4,888	4.9	460	0.5	3,500	3,800
Greece	8,500	* 4,970	* 185	3.7	-	-	700	200
Iceland	188	* 315	-	-	-	-	8/	8/
Italy	50,740	* 49,500	* 1,789	3.6	56	0.1	1,700	800
Luxembourg	329	* 582	* 9	1.4	-	-	8/	8/
Netherlands	12,120	* 16,600	* 735	4.4	49	0.3	850	250
Norway	3,695	* 6,200	* 220	3.5	17	0.3	325	100
Portugal	9,107	* 3,120	* 229	7.3	63	2.0	400	200
Turkey	30,831	* 7,250	* 385	5.3	-	-	500	300
United Kingdom	54,213	* 91,370	* 5,562	6.1	491	0.5	3,700	3,100
Total - - - - -	289,386	389,377	19,672	5.0	2,068	0.5	15,625	10,165
All NATO - - - - -	500,742	1,061,557	72,673	6.8	6,057	0.6	48,625	21,465

Continued

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (In thousands)	Gross national product (GNP)	Defense		Foreign economic aid		Public education expenditures	Public health expenditures
			Expenditures	Percent of GNP	Expenditures	Percent of GNP		
<u>Warsaw Pact Countries</u>								
Albania	1,800	\$104,000 ^{9/}	\$5,000- 6,000 ^{10/}	4.8- 5.8%	\$100	0.1%	\$ 2,700	\$ 2,200
Bulgaria	8,144							
Czechoslovakia	14,058							
Germany, East	16,050							
Hungary	10,120							
Poland	31,161							
Rumania	18,927	300,000	30,000- 40,000	10.0- 13.3	375	0.2	20,000	8,000
Soviet Union ^{11/}	228,000							
Total - - - - -	328,260	404,000	37,000- 46,000	8.7- 11.4	475	0.1	22,700	10,200
<u>Other European Countries</u>								
Austria	7,195	* 8,460	* 135	1.6	13	0.2	425	150
Finland	4,580	* 6,550	* 105	1.9	10	-	240	130
Ireland	2,849	* 2,590	* 59	1.4	-	-	75	50
Spain	31,339	* 17,700	* 516	2.9	-	-	1,000	200
Sweden	7,661	* 17,200	* 826	4.8	15	0.1	800	400
Switzerland	6,000	* 12,880	* 348	2.7	10	0.1	400	200
Yugoslavia	19,279	* 7,755	* 403	5.2	-	-	300	100
Total - - - - -	78,903	73,135	2,392	3.3	48	-	3,240	1,230
<u>Latin America</u>								
Argentina	21,344	* 11,200	* 251	2.2	-	-	225	50
Bolivia	4,150	* 720	* 8	1.1	-	-	15	10
Brazil	79,690	* 14,660	* 570	3.9	-	-	400	120
Chile	8,320	* 3,930	* 71	1.8	-	-	250	100
Colombia	16,529	* 5,000	* 63	1.3	-	-	190	90
Costa Rica	1,378	* 550	* 2	0.4	-	-	20	5
Cuba	7,336	2,700	200 ^{12/}	7.4	-	-	90 ^{12/}	50 ^{12/}

Continued

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (In thousands)	Gross national product (GNP)	Defense		Foreign economic aid		Public education expenditures	Public health expenditures
			Expenditures	Percent of GNP	Expenditures	Percent of GNP		
			(In millions of U.S. dollar equivalents)					
Dominican Republic	3,458	\$ 850	\$ 35	4.1%	-	-	\$ 30	\$ 20
Ecuador	4,879	* 1,000	* 20	2.0	-	-	30	15
El Salvador	2,750	* 790	* 9	1.1	-	-	15	5
Guatemala	4,225	* 1,246	* 11	0.9	-	-	20	10
Haiti	4,528	330	8	2.4	-	-	5	5
Honduras	2,095	* 468	* 6	1.3	-	-	10	5
Jamaica	1,793	800	* 5	0.6	-	-	15	5
Mexico	39,429	*17,450	* 130	0.7	-	-	350	75
Nicaragua	1,567	* 485	* 8	1.6	-	-	10	5
Panama	1,207	* 540	* 1	0.2	-	-	25	15
Paraguay	1,898	* 374	* 12	3.2	-	-	10	5
Peru	11,097	* 3,180	* 111	3.5	-	-	130	50
Uruguay	3,019	* 1,347	17	1.3	-	-	40	10
Venezuela	8,491	* 6,405	* 145	2.3	-	-	300	200
Total - - - - -	229,183	74,025	1,683	2.3	-	-	2,180	850
Far East								
Burma	24,229	* 1,610	* 104	6.4	-	-	45	15
Cambodia	6,000 ^{12/}	785 ^{12/}	45	5.7	-	-	30 ^{12/}	15 ^{12/}
China, Mainland ^{12/}	738,000	70,000	4,000-	5.7-	25	-	2,800	500
China, Republic of	12,500	* 2,290	* 218	9.5	10	-	60	20
Hong Kong	3,692	1,425	10	0.7	-	-	30	20
Indonesia	103,100	8,000 ^{12/}	1,200 ^{12/}	15.0	-	-	200 ^{12/}	75 ^{12/}
Japan	96,906	*68,000	* 836	1.2	178	0.3	3,000	700
Korea, North	12,000	2,500 ^{12/}	200 ^{12/}	8.0	-	-	50 ^{12/}	15 ^{12/}
Korea, Republic of	27,633	* 2,745	* 123	4.5	-	-	90	30
Laos	2,470	250	* 17	6.8	-	-	15	5
Malaysia	10,955	* 3,400	90	2.6	-	-	110	50
Mongolia	1,040	500 ^{12/}	25 ^{12/}	5.0	-	-	25 ^{12/}	10 ^{12/}
Philippines	31,270	* 4,825	* 72	1.4	-	-	260	75

Continued

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (In thousands)	Gross national product (GNP)	Defense		Foreign economic aid		Public education expenditures	Public health expenditures
			Expenditures	Percent of GNP	Expenditures	Percent of GNP		
				(In millions of U.S. dollar equivalents)				
Thailand	30,500	*\$ 3,330	*\$ 86	2.6%	-	-	\$ 90	\$ 25
Vietnam, North	17,000	1,800 ^{12/}	300 ^{12/}	16.5	-	-	60 ^{12/}	20 ^{12/}
Vietnam, Republic of	15,715	* 1,900	* 267	14.1	-	-	50	20
Total - - - - -	1,133,010	173,360	7,593- 10,593	4.4- 6.1	213	-	6,915	1,595
Near East								
Cyprus	587	* 350	* 8	2.3	-	-	18	5
Iraq	6,990	* 1,785	* 140	7.8	-	-	125	50
Iran	22,750	* 5,030	* 233	4.6	-	-	150	50
Israel	2,475	* 3,111	* 372	12.0	10	-	200	50
Jordan	1,850	* 410	* 59	14.4	-	-	15	5
Kuwait	395	1,200 ^{12/}	20 ^{12/}	1.7	34	2.8	3 ^{12/}	2 ^{12/}
Lebanon	2,420	785	* 26	3.3	-	-	20	5
Saudi Arabia	6,500	1,240	* 113	9.1	-	-	75	15
Syrian Arab Republic	5,432	840	100	11.9	-	-	40	10
Yemen	4,000	375	10	2.7	-	-	30	15
United Arab Republic	28,690	4,050	300	7.4	-	-	215	75
Total - - - - -	82,089	19,176	1,381	7.2	44	-	891	282
South Asia								
Afghanistan	14,100	1,100	* 13	1.2	-	-	15	5
Ceylon	10,910	* 1,570	* 15	1.0	-	-	100	40
India	475,382	* 43,000	* 1,800	4.3	-	-	1,000	250
Nepal	9,900	603	* 5	0.8	-	-	10	5
Pakistan	100,762	* 9,450	* 287	3.0	-	-	200	50
Total - - - - -	611,054	55,723	2,120	3.9	-	-	1,325	350

Continued

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (in thousands)	Gross national product (GNP)	Defense		Foreign economic aid		Public education expenditures	Public health expenditures
			Expenditures	Percent of GNP	Percent			
					Expenditures	of GNP		
(In millions of U.S. dollar equivalents)								
Africa								
Algeria	10,800	\$ 2,200	\$ 70	3.2%	-	-	\$ 190	\$ 40
Angola	5,084	300	10	3.3	-	-	2	2
Cameroon	4,620	400	17	4.3	-	-	13	7
Central African Republic	1,320	120	2	1.7	-	-	3	2
Chad	3,300	170	2	1.2	-	-	5	3
Congo, Leopoldville	15,600	1,375	12	8.7	-	-	70	25
Congo, Brazzaville	1,000	150	5	0.3	-	-	8	5
Dahomey	2,200	160	4	2.5	-	-	8	4
Ethiopia	19,000	* 982	* 22	2.0	-	-	20	10
Gabon	454	95	2	2.1	-	-	3	3
Ghana	7,500	* 1,675	* 39	2.3	-	-	70	30
Guinea	3,450	215	5	2.3	-	-	6	4
Ivory Coast	3,750	760	* 11	1.4	-	-	10	3
Kenya	9,104	* 829	* 8	1.0	-	-	30	8
Liberia	1,041	170	2	1.2	-	-	5	3
Libya	1,559	470	17	3.6	-	-	35	14
Malagasy Republic	6,100	533	* 9	1.7	-	-	8	7
Malawi	4,000	140	3	2.1	-	-	5	-
Mali	4,500	292	9	3.1	-	-	4	5
Mauritania	800	50	2	4.0	-	-	5	3
Morocco	12,959	* 2,365	* 113	4.8	-	-	100	40
Niger	3,193	245	5	2.0	-	-	5	4
Nigeria	42,700	* 4,120	* 48	1.2	-	-	100	30
Rhodesia, South	4,140	920	8	0.9	-	-	38	15
Senegal	3,460	700	11	1.6	-	-	18	10
Sierra Leone	2,230	240	2	0.8	-	-	10	4
Somali Republic	1,970	100	4	4.0	-	-	4	5
South Africa, Republic of	17,474	* 10,400	* 375	3.6	-	-	225	75

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Continued

Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

Region and Country	Mid-year Population (In thousands)	Gross national product (GNP)	Defense		Foreign economic aid		Public education expenditures	Public health expenditures
			Expenditures	Percent of GNP	Expenditures	Percent of GNP		
(In millions of U.S. dollar equivalents)								
Sudan	13,180	*\$ 1,285	*\$ 30	2.3%	-	-	\$ 35	\$ 15
Tanzania	9,990	* 715	* 3	4.2	-	-	20	10
Togo	1,603	140	* 3	2.1	-	-	25	15
Tunisia	4,600	* 853	* 7	0.8	-	-	50	20
Uganda	7,370	* 590	* 7	1.2	-	-	22	12
Upper Volta	4,716	260	8	3.1	-	-	8	4
Zambia	3,950	605	9	1.5	-	-	15	4
Total - - - - -	239,617	34,624	884	2.6	-	-	1,175	441
Oceania								
Australia	11,136	20,350	640	3.4	114	0.6	525	1,100
New Zealand	2,594	4,435	90	1.8	12	0.3	165	100
Total - - - - -	13,730	24,785	730	2.9	126	0.5	690	1,200
World Total	3,216,588	1,920,385	124,456- 138,456	6.5-7.1	7,200 ^{12/}	0.4	87,741	37,613

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1/ Data marked with an asterisk have been roughly adjusted to concepts outlined in the UN Yearbook of National Accounts Statistics. For additional information, see Statistical Methods and Concepts, page ii.

2/ Data marked with an asterisk have been adjusted generally to concepts and definitions used by the North Atlantic Treaty Organization (NATO). Data exclude expenditures on civilian space programs. For additional information, see Statistical Methods and Concepts, page iii.

3/ Data cover official aid to free world less developed countries only. Data relating to free world donors exclude assistance from non-government sources.

4/ The quality and comprehensiveness of these statistics vary greatly from country to country. Data generally relate only to central government expenditures. In many countries, provincial and local governments have a major role in education and health.

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Table 1: Defense Expenditures and Selected Economic Data, by Country, 1964

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- 5/ Generally, in current market prices converted at official exchange rates. For exceptions see Statistical Methods and Concepts, page 4.
- 6/ Estimate relates to federal, state, and local expenditures.
- 7/ Excludes West Berlin. For 1964, West Berlin population estimated at 2,193,000; gross national product estimated at \$3.8 billion in current market prices.
- 8/ Unavailable.
- 9/ Current market prices converted at rough purchasing power equivalents.
- 10/ Rough dollar estimates based on share of defense expenditures of gross national product at factor cost.
- 11/ Financial data relate to purchasing power equivalents. At current market prices, 1964 Soviet GNP estimated at 216 billion rubles, and expenditures on public education and health at about 15 billion and 8 billion rubles, respectively. See Statistical Methods and Concepts for additional information.
- 12/ Estimated data.
- 13/ Includes estimated foreign economic aid extended to free world less developed countries by all other donors. A number of countries receiving aid themselves provide technical assistance to other countries.

Notes:

The range of estimates of defense spending for Mainland China and the Soviet Union is due, at least in part, to different definitions of defense expenditures. For additional information, see Statistical Methods and Concepts, page iii.

Statistical series were generally prepared in the latter part of 1965. The data used were the latest available at the time of preparation. Dash denotes modest or negligible sums.

Sources:

Population: US Agency for International Development (AID), and the United Nations (UN);

Gross National Product: AID, US Department of State, and UN;

Defense Expenditures: For the free world, AID; for the Soviet Union, Institute for Strategic Studies, London, and US Government estimates; for other communist countries, US academic specialists, and US Government estimates;

Foreign Economic Aid Expenditures: AID and the Organization for Economic Cooperation and Development;

Public Education and Health Expenditures: UN and the World Health Organization.

Prepared by:
U.S. Arms Control and Disarmament Agency
Washington, D.C.
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Table 2: Defense Expenditures and Selected Economic Data, by Region, 1964

Region and Country	Mid-year Population (In millions)	Gross national product (GNP) ^{1/} (In billions of U.S. dollar equivalents)	Defense		Foreign economic aid		Public education expenditures ^{4/}	Public health expenditures ^{4/}
			Expenditures ^{2/}	Percent of GNP	Expenditures ^{3/}	Percent of GNP		
North America	211.4	\$672.2	\$53.0	8.0%	\$4.0	0.6%	\$33.0	\$11.3
United States	192.1	628.7	51.3	8.2	3.9	0.6	30.4	10.0
Europe	696.6	866.5	57.1-68.1	6.6-7.9	2.6	0.3	41.5	21.6
NATO Countries ^{6/}	289.4	389.4	19.7	5.0	2.1	0.5	15.6	10.2
Warsaw Pact Countries ^{7/}	328.3	404.0	35-46 ^{8/}	8.7-11.4	0.5	0.1	22.7	10.2
Soviet Union ^{9/}	228.0	300.0	30-40	10.0-13.3	0.4	0.1	20.0	8.0
Other Countries	78.9	73.1	2.4	3.3	-	-	3.2	1.2
Latin America	229.2	74.0	1.7	2.3	-	-	2.2	0.9
Far East	1,113.0	173.4	7.8-10.6	4.4-6.1	-	-	6.9	1.6
Japan	96.9	68.0	0.8	1.0	0.2	0.3	3.0	0.7
China, Mainland ^{10/}	738.0	70.0	4.0-7.0	5.7-10.0	-	-	2.8	0.5
Near East	82.1	19.2	1.4	7.2	-	-	0.9	0.3
South Asia	611.1	55.7	2.1	3.9	-	-	1.3	0.4
India	475.4	43.0	1.8	4.3	-	-	1.0	0.3
Africa	239.6	34.6	0.9	2.6	-	-	1.2	0.4
Oceania	13.7	24.8	0.7	2.9	0.1	-	0.7	1.2
World Total	3,216.7	1,920.4	124.5- 138.5	6.5- 7.1	7.2 ^{11/}	0.4	87.7	37.7

Continued

Table 2: Defense Expenditures and Selected Economic Data, by Region, 1964

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- 1/ In so far as possible, data adjusted to concepts outlined in the UN Yearbook of National Accounts Statistics. For additional information, see Statistical Methods and Concepts, page ii.
 - 2/ Data for the free world have been adjusted generally to concepts and definitions used by the North Atlantic Treaty Organization (NATO). Data exclude expenditures on civilian space programs. For additional information, see Statistical Methods and Concepts, page iii.
 - 3/ Data cover official aid to free world less developed countries only. Data relating to free world donors exclude assistance from non-government sources.
 - 4/ The quality and comprehensiveness of these statistics vary significantly from country to country. Data generally relate only to central government expenditures. In many countries, provincial and local governments have a major role in education and health.
 - 5/ Generally, in current market prices converted at official exchange rates. For exceptions, see Statistical Methods and Concepts, page i.
 - 6/ Include United States, Belgium, Canada, Denmark, France, West Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Turkey, and the United Kingdom.
 - 7/ Include Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, and the Soviet Union.
 - 8/ Represents best available dollar estimate of total defense expenditures.
 - 9/ Financial data relate to purchasing power equivalents.
 - 10/ Estimated data.
 - 11/ Includes estimated foreign economic aid extended to free world less developed countries by all other donors.

Concluded

Table 2: Defense Expenditures and Selected Economic Data, by Region, 1964

Note: Due to rounding data may differ from information contained in Table 1.
Dash denotes negligible sum.

Sources:

Population: US Agency for International Development (AID), and the United Nations (UN);
Gross National Product: AID, US Department of State, and UN;
Defense Expenditures: For the free world, AID; for the Soviet Union, Institute for Strategic Studies, London, and US Government estimates; for other communist countries, US academic specialists, and US Government estimates;
Foreign Economic Aid Expenditures: AID and the Organization for Economic Cooperation and Development;
Public Education and Health Expenditures: UN and the World Health Organization.

Prepared by:
U.S. Arms Control and Disarmament Agency
Washington, D.C.
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Table 3: Defense Expenditures and Selected Economic Data for Less Developed Countries,^{1/} by Region, 1964

Region	Mid-year Population (In millions)	Gross national product (GNP) ^{2/} (In billions of U.S. dollar equivalents) ^{5/}	Defense		Public education expenditures ^{4/} (In billions of U.S. dollar equivalents) ^{5/}	Public health expenditures ^{4/} (In billions of U.S. dollar equivalents) ^{5/}
			Expenditures ^{3/}	Percent of GNP		
Europe	109.0	\$ 53.0	\$ 2.5	4.7%	\$ 3.2	\$ 1.3
Latin America	229.2	74.0	1.7	2.3	2.2	0.9
Far East	1,036.1	105.4	6.8-9.8	6.5-9.3	3.9	0.9
Near East	82.1	19.2	1.4	7.2	0.9	0.3
South Asia	611.1	55.7	2.1	3.9	1.3	0.4
Africa	222.1	24.2	0.5	2.1	1.0	0.4
<u>Total</u>	<u>2,289.6</u>	<u>331.5</u>	<u>15.0-18.0</u>	<u>4.5-5.4</u>	<u>12.5</u>	<u>4.2</u>
<u>Percent of world total</u>	<u>71.2%</u>	<u>17.3%</u>	<u>12.1-13.0%</u>	-	<u>14.3%</u>	<u>11.1%</u>

^{1/} For this table, less developed countries include the following: Albania, Bulgaria, Greece, Portugal, Spain, Turkey, Yugoslavia; all of Near East and Far East except Japan; all of South Asia; all of Latin America; and all of Africa except the Republic of South Africa.

^{2/} For most free world less developed countries, GNP statistics based on UN data for prior years. For less developed countries where official national accounts data are not available or considered to be inadequate, estimates prepared from available information. For additional information, see Statistical Methods and Concepts, page ii.

^{3/} Data have been generally adjusted to concepts and definitions used by the North Atlantic Treaty Organization (NATO). See Statistical Methods and Concepts, page iii for additional information.

^{4/} The quality and comprehensiveness of these data vary significantly from country to country. Data generally relate only to central government expenditures. In many countries, provincial and local governments have a major role in education and health.

Concluded

Table 3: Defense Expenditures and Selected Economic Data for Less Developed Countries,^{1/} by Region, 1964

^{5/} Generally, in current market prices converted at official exchange rates.

Sources:

Population: US Agency for International Development (AID), and the United Nations (UN);

Gross National Product: AID and US Department of State, and UN;

Defense Expenditures: For the free world, AID; for communist countries, US academic specialists, and US Government estimates;

Public Education and Health Expenditures: UN and the World Health Organization.

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Table 4: Defense Expenditures and Gross National Product for Selected Less Developed Countries, 1960, 1962, and 1964

Region and Country	1960		1962		1964	
	Gross national product	Defense expenditures	Gross national product	Defense expenditures	Gross national product	Defense expenditures
(In millions of U.S. dollar equivalents)						
<u>Europe</u>						
Portugal	\$ 2,417	\$105	\$ 2,790	\$ 200	\$ 3,120	\$ 229
Yugoslavia	4,297	280	5,830	360	7,755	403
<u>Latin America</u>						
Ecuador	759	19	868	17	1,000	20
Mexico	12,331	88	14,200	103	17,450	130
Venezuela	5,216	110	5,613	132	6,405	145
<u>Far East</u>						
Philippines	3,109	44	3,830	44	4,825	72
China, Republic of	1,498	164	1,809	222	2,290	218
Thailand	2,623	73	3,000	74	3,330	86
<u>Near East</u>						
Iran	4,235	166	4,561	188	5,030	233
Israel	1,538	115	2,229	178	3,111	372
Jordan	272	52	343	54	410	59
<u>South Asia</u>						
India	33,200	641	36,900	1,037	43,000	1,800
Pakistan	7,489	223	8,340	216	9,450	287
<u>Africa</u>						
Ethiopia	812	15	900	19	982	22
Ghana	1,324	14	1,518	33	1,675	39
Nigeria	3,300	16	3,715	24	4,120	48

Note: Gross national product and defense expenditures are in current market prices generally converted at official exchange rates. Defense expenditures have been adjusted generally to the concepts and definitions used by NATO.

Sources: Gross national product and defense expenditures: AID.

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Appendix

Statistical Methods and Concepts

The following is a statement of qualifications of the data used in the report and describes both the data and the definitions and concepts involved.

Conversion Rates

To provide world totals and some basis for rough comparisons among nations and regions, data in foreign currencies have been converted into dollars throughout the accompanying tables. For most countries, currency conversions have been made at official exchange rates, but for some countries purchasing power equivalents are used. These conversions create several problems which should be taken into account when interpreting the data.

Official exchange rates are not the ideal instrument for converting domestic values of goods and services into common denominators by which meaningful comparisons can be made. Various factors including foreign exchange controls and quantity restrictions on trade may affect and distort relationships between internal prices and external prices expressed in official exchange rates. In addition, differences in the composition of national defense programs and in national pricing practices with respect to defense further complicate conversion of defense spending in terms of a common currency unit.

Although purchasing power equivalents provide a more significant means of comparing national data and aggregating them, conversion factors in these terms are available only for a limited number of countries. Rough purchasing power equivalents have been used for the Warsaw Pact countries and for certain other countries (Argentina, Brazil, Chile, Colombia, Indonesia, and South Korea).

For the Soviet Union, rough conversion factors were estimated for GNP in total and separately for each of the components shown in the table, i.e. defense, foreign economic aid, public education, and public health. This means that the relation of the components to GNP is different from the relation which exists when values are expressed in indigenous currencies. In the case of defense, the ratio to GNP is higher in purchasing power equivalents than in rubles.

Population

The general source of population statistics is the United Nations. UN data have been reviewed and projected to mid-1964 estimates by AID in light of evaluations made by the U.S. missions abroad.

Gross National Product

GNP in this study is defined in terms of an economy's total output of goods and services, valued in current market prices paid by the ultimate consumer. To compare major components of GNP, a more suitable measurement is gross national product expressed in national currencies at factor cost. Factor cost takes into account the effect of indirect taxes and subsidies on the factors of production. For example, defense as a share of GNP in the Soviet Union would be significantly larger if measured at factor cost than at market prices because the defense sector in the Soviet Union is subsidized. However, for many countries, current data on GNP at factor cost are not readily available.

For most countries of the free world, AID utilizes GNP data obtained from UN sources. Where UN data are unavailable and official national accounts data are nonexistent or considered to be deficient, AID has prepared estimates from available information.

GNP data at market prices for the Soviet Union are roughly adjusted to Western concepts and are expressed in estimated purchasing power equivalents.

Aggregate GNP for Warsaw Pact members other than the Soviet Union, roughly adjusted to Western concepts and reflecting rough purchasing power equivalents, has been recently estimated to be about equal to West Germany's GNP. GNP for Mainland China is a rough estimate prepared from available information.

Defense Expenditures

Defense expenditures, as compiled by AID, are adjusted to the NATO definition of defense. They represent current and capital defense expenditures by national governments specifically to meet the needs of the armed forces, including expenditures financed by aid from foreign governments. They take in total military expenditures of national defense agencies, plus certain types of para-military forces, retirement pensions of career military and appropriate civilian personnel, expenditures for foreign military assistance covering grants of end-items, stockpiling of military equipment and supplies, and the military component of mixed civilian-military activities such as atomic energy and research and development. Excluded are expenditures on civilian space programs, civil defense, stockpiling of industrial raw materials or semi-finished products.

Soviet defense expenditures have been estimated in terms of what the Soviet defense effort would cost in the United States. It is generally believed that the announced Soviet defense budget excludes certain expenditures which would be classified as defense spending in Western countries. The Institute for Strategic Studies, London, estimates current Soviet defense expenditures to range between \$30-35 billion, whereas U.S. estimates of these expenditures, which may be broader in definition, are in the neighborhood of \$40 billion.

Defense expenditures for other Warsaw Pact countries are based on explicit defense spending, with an upward adjustment to include certain other expenditures.

For Mainland China, the very rough estimates of defense expenditures are derived from fragmentary information and should be viewed with caution. The lower limit of the range may be more narrowly defined than the upper limit, which includes defense-related expenditures.

Foreign Economic Aid Expenditures

Economic aid data cover expenditures for assistance to free world less developed countries. Data relate to official bilateral and contributions to certain multilateral programs, and for the free world donors exclude assistance from non-government sources.

Expenditures on Public Education and Health

For the United States and a few other countries, data on public education and health embrace expenditures made by all levels of government. Data for the remaining countries generally cover national government expenditures only, as figures for provincial and local governments are not available. Since these other levels of government may play a major role in providing educational and health services in some countries, the data shown presumably understate actual world expenditures on these services.

Information on public education expenditures covers, in so far as possible, the four levels of educational attainment defined and adopted by the 1958 General Session of UNESCO. The four levels include pre-schooling education (kindergarten), primary and secondary education, and university level education. Expenditure data include combined current and capital expenditures. Estimates of public health expenditures cover combined health and medical service expenditures.

Expenditures on public education and health in the Soviet Union are expressed in purchasing power equivalents. In these two fields the ruble-dollar ratio is estimated to be fairly close to the official exchange rate.