



METHODOLOGY FOR INTERNATIONAL COMPARISON OF GOVERNMENT PRIORITIES

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I. Introduction

SIPRI often receives external requests for data that enable a comparison to be made between military and social expenditure, giving an indication of government priorities. In order to meet this demand for data, this paper will provide the data currently available, for the most recent period (1998–2001) and for as many countries as possible (162). These data are provided in the [tables of public expenditure](#)¹. Presenting such data raises a number of methodological problems and requires certain terms to be defined precisely. The purpose of this paper is to justify the choices made and to explain the problems associated with these figures.

Military and social spending data can be compared in various ways that require different methods of comparison, measurement, etc., and, hence, also give rise to different interpretations. Section II of this paper gives a brief discussion of the types of data that are required or are most useful for this purpose. Section III presents an overview of the main sources of data available and the quality and the geographical and temporal scope of the data provided by these sources. The data provided in the tables are described in section IV. Section V gives a brief guide to the interpretation of the data provided. Finally, section VI summarizes the methodological basis for the selection of data.

II. Required data

National spending is comprised of both private and public spending. Table 1 shows various levels of spending that can be considered when comparing national

Table 1. Division of national expenditure by sector

1. Private
2. Public <i>of which</i>
2.1 General government
2.1.1 Central government
2.1.2 Regional or state government
2.1.3 Local government
2.2 Public corporations

1 + 2 Total national

¹ http://web.sipri.org/contents/milap/milex/bgpapers/mex_priorities_data.pdf

expenditure. Within the public sector (level 2), there are different levels of governmental spending. Usually this sector is divided into central (2.1.1), regional or state (2.1.2) and local (2.1.3) government expenditure, which together constitute 'general government expenditure' (GGE, 2.1.1 + 2.1.2 + 2.1.3). In addition there are other public organizations, such as public corporations (for example, commercial trading business) that undertake certain kinds of activities and expenditure (2.2).

The main purpose of comparing military and social expenditure is to assess government priorities in the allocation of public funds between military and social activities. For this objective, only public expenditure is relevant, and not private expenditure. It should be noted, however, that in some countries there is a significant amount of private expenditure on social activities. Assuming state monopoly of military forces, the military sector is often perceived as belonging exclusively to the public sector. However, it is worth noting that non-state actors also have significant armed forces, which are thus financed by non-government sources. Nevertheless, spending by the private sector, where no regulatory or legal obligations are involved, does not reflect the commitment by the government to defense or social policies, and hence will be excluded. There are often incentives for the private sector to be involved in such areas, but direct public expenditure from the government budget gives a more accurate picture of government priorities.

The extent of government decentralization determines the scope of delegation and transfer of the expenditure budget. If there is a greater degree of decentralization, the local level will have more autonomy to determine its expenditure priorities. This is often the case with education and health budgets, which tend to have greater local autonomy in terms of public administration. As regards military spending, it is usually the responsibility of the central government, but in some countries there is also military expenditure at the regional or local level. The GGE is more relevant because (a) central government expenditure by itself does not reflect all public budgetary priorities and (b) local government plays an important role in the social sector budgetary efforts.

Social expenditure covers public and private allocations in a broad range of areas, such as services for elderly and disabled people; occupational injury and disease; maternity and parental leave; active labour programmes; unemployment; old-age, sickness, veterans', family, and disability benefits; and others.² It is not possible to produce comparable data on this broad concept of 'social expenditure'; instead, a more limited concept has to be selected. The most feasible concepts used as an indicator for social priorities are spending on education and on health.

III. Available data

The main organizations that supply international statistics on military and social expenditure data are presented in table 2. Both primary and secondary data suppliers provide the statistics; the primary suppliers are national organizations that produce sources of national data; the secondary suppliers are organizations that collect the data of primary and secondary suppliers. The more removed from a primary source the data suppliers are, the greater is the risk of introducing inconsistencies. For instance, in some cases secondary data suppliers mix figures that are not comparable. This

² Organization for Economic Co-operation and Development, 'Manual – Social Expenditure', 1980–1998, *20 Years of Social Expenditure, the OECD Database*, URL <http://www.oecd.org/department/0,2688,en_2649_34635_1_1_1_1_1,00.html>.

Table 2. Main suppliers of international statistics on military and social expenditure

<i>Source of data</i>			
Type of data	1. UNDP	2. WB	3. IMF
Education	UNESCO	UNESCO	IMF questionnaires
Health	WB	WHO	IMF questionnaires
Military	SIPRI	SIPRI	IMF questionnaires

increases unreliability and causes inappropriate comparisons of data. Therefore, it is important to choose sources as close to the original data as possible.

For the purpose of global comparison, there are three main international organizations that provide international statistics on military and social expenditure for most of the countries in the world: the United Nations Development Program (UNDP), the World Bank (WB) and the International Monetary Fund (IMF). They all produce annual reports with extensive statistical annexes. However, they do not use primary sources; these reports are based on the figures of other organizations. The *Human Development Report 2004* (HDR 2004), published by the UNDP (table 2, column 1), uses data on education expenditure from the United Nations Educational, Scientific and Cultural Organization (UNESCO), data on health expenditure from the WB and data on military spending from the Stockholm International Peace Research Institute (SIPRI). Two publications of the WB (table 2, column 2), the *World Development Report* (WDR) and the *World Development Indicators* (WDI), use global statistics on education expenditure from UNESCO, health expenditure from the World Health Organization (WHO) and military expenditure from SIPRI. The IMF *Government Financial Statistics Yearbook* (GFSY) contains data for all three types of expenditure based upon IMF questionnaires answered by the member states (table 2, column 3).³

IV. Selected sources of data

In order to undertake a coherent comparison, data should satisfy the following conditions: (a) each measure should cover the same items and, hence, be based on the same definition; (b) every measure should embrace, as far as possible, the same geographical scope and time frame; and (c) estimates should be avoided.

So as to select data with a common interpretation, caution must be taken when choosing the definition. It has to be tailored according to the purpose of the comparison, and it should be the same for all figures. The objective of the data in tables A and B is to make an international comparison of national public budget priorities. Thus the definition to be followed will embrace the burden that education, health or military expenditure represents to the national economy of a country. This should include all current and capital expenditure at the general government level for each of the three sectors.

³ See International Monetary Fund, 'Government Finance Statistics', *Government Finance Statistics Manual 2001*, at URL <www.imf.org/external/pubs/ft/gfs/manual/gfs.htm>.

Table 3. Selected sources of data

Type of data	Secondary source	Supplier	Period (of most recent data)	Main suppliers
Education	UNESCO Institute of Statistics, education statistics	UNESCO	1998–2002	1. Ministries of finance 2. Other ministries 3. Central statistical offices
Health	<i>WHO Report 2004</i> , statistical annexes	WHO	1997–2001	1. National governments 2. OECD 3. IMF
Military	<i>SIPRI Yearbook 2004</i> , ‘Military expenditure’	SIPRI	1994–2002	1. National governments 2. IMF, NATO 3. Specialized publishers

The data selected for the tables are from three sources (table 3). Data on education expenditure are from UNESCO, data on health expenditure are from WHO, and data on military expenditure are from SIPRI. These data and their sources were selected according to the following criteria: (a) relevance of the data for the purposes they are to be used for; (b) availability; (c) comparability; (d) validity; and (e) geographical and temporal scope of the data. Each of the three types of data is described in detail below.

Education expenditure

UNESCO data on public expenditure on education includes both capital expenditure (spending on construction, renovation, major repairs and the purchase of heavy equipment or vehicles) and current expenditure (spending on goods and services that are consumed within the current year and would need to be renewed the following year). It covers such expenditure as staff salaries and benefits, contracted or purchased services, books and teaching materials, welfare services, furniture and equipment, minor repairs, fuel, insurance, rent, telecommunications and travel.⁴ The most recent data series available from UNESCO are for the period 1998–2002.⁵

UNESCO’s data sources are annual financial reports prepared by the Ministry of Finance, or by various government departments engaged in education activities, especially the Ministry of Education of the respective countries, and national accounts reports by the Central Statistical Office.

⁴ United Nations Development Program, ‘Human Development Report 2004: Cultural Liberty in Today’s Diverse World’, *Definitions and Statistical Terms*, New York, 2003, p. 269.

⁵ United Nations Educational, Scientific, and Cultural Organization, ‘Statistical Tables: Public expenditure on education as % of GNI, GDP, and government expenditure’, at URL <http://www.uis.unesco.org/ev.php?URL_ID=5187&URL_DO=DO_TOPIC&URL_SECTION=201>.

Health expenditure

WHO data on public expenditure on health is the sum of outlays on health paid for by taxes, social security contributions and external resources, without double counting government transfers for social security and extra-budgetary funds. Social security and extra-budgetary funds for health include expenditure for the purchase of health goods and services by schemes that are compulsory, under governmental control and cover a sizeable segment of the population.⁶ The WHO accounting system for public expenditure on health is based on national data, with the exception of the OECD member countries, for which OECD health data are used. However, only a few states have released health accounts for the most recent time period. When no national source was available, the IMF *GFSY* is used as a source. The most recent data series available from the WHO is for the period 1997–2001.

Military expenditure

SIPRI data on public expenditure on the military are based on the following definition guidelines: where possible, figures will include all current capital expenditure on (a) the armed forces, including peacekeeping forces; (b) defense ministries and other government agencies engaged in defense projects; (c) paramilitary forces, when judged to be trained and equipped for military operations; and (d) military space activities. Such expenditure should include: military and civil personnel, including retirement pensions and social services for military personnel; operations and maintenance; procurement; military research and development; and military aid, in the military expenditure of the donor country.⁷ The most recent figures in the SIPRI Yearbook 2004 are for the period 1994–2002.

The SIPRI data on military spending is based on the following three basic types of source, in order of decreasing priority: (a) official data provided by governments, either in their official publications or in response to questionnaires sent by SIPRI; (b) international statistics, such as those of the North Atlantic Treaty Organization (NATO) and the IMF; and (c) secondary sources such as specialist journals and newspapers.

V. Assessment of the data

Table A presents the SIPRI, UNESCO and WHO data on military, education and health expenditures for 162 countries. The countries selected are those with a population exceeding one million, and nine other countries for which data are available for both military and social expenditures.⁸ Table B provides the same data for those 30 countries for which the complete time series are available for all the three variables.

⁶ World Health Organization, 'The World Health Report 2004', *Annexes and Tables – Statistical Annex*, at URL <<http://www.who.int/whr/2004/annex/en/>>, p. 174.

⁷ Sköns, E. and Stålenheim, P., 'Sources and methods for military expenditure data', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security*, Table 10C. Oxford University Press, 2004, p. 370–374.

⁸ See UNDP, 'Human Development Report 2004: Cultural Liberty in Today's Diverse World', *Human Development Indicators*, New York, p. 152–155.

The tables cover the time period 1998–2001. Caution should be taken in deriving trends from these data, since peak figures can distort the trend in such short time series. The figures are given as a share of GDP. Such data are provided by UNESCO and SIPRI for education and military expenditure, while the data on health expenditure as a share of GDP have been derived from two WHO data series: data on total spending on health as a share of GDP and data on public spending on health as a share of total national health expenditure.

It is worth noting that, while the data are as close to the definitions as possible, in practice countries use their own definitions within their national budgets, which in many cases differ widely between countries. It is therefore difficult for governments to fill in standardized questionnaires, such as those of SIPRI, UNESCO and WHO. Furthermore, sufficient information is not available for these organizations to make their own calculations in accordance with standardized definitions.

Expenditure data are input measures, which do not necessarily determine the output. Thus, data on military expenditure should not be used for cross-country comparisons of military capability or military security. Similarly, data on education and health expenditure should not be used to compare the quality or coverage of the education and health services. Any comparison should be limited to the military and social burdens on the national economy.

VI. Conclusions

The data presented in tables A and B are intended to provide comparability, reliability and validity for an international comparison of public expenditure allocations. First, for comparability, the chosen figures, if possible, share common definitions. Second, the time frame is in accordance with the most recent figures provided by SIPRI, UNESCO and WHO. Third, where feasible, the variables are equally inclusive, embracing all levels of government. Finally, the validity of the data is limited to comparisons of the burdens of military and social expenditure. It is worth noting that, while the data are as reliable as can be achieved, the selected figures are not as close to actual expenditure as would be desired.