

POLICY RESEARCH WORKING PAPER

WPS 1806

1806

An International Statistical Survey of Government Employment and Wages

Salvatore Schiavo-Campo

Giulio de Tommaso

Amitabha Mukherjee

Detailed statistical and econometric evidence on government employment and pay, both global and regional.

Background paper for *World Development Report 1997*

The World Bank
Office of the Chief Economist and Senior Vice President,
Development Economics
and
Europe and Central Asia, and Middle East and North Africa
Technical Department
Public Sector Management and Information Technology Team
August 1997



Summary findings

This paper complements a separate study in this Series (“Government Employment and Pay: A Global and Regional Perspective,” Policy Research Working Paper 1771, May 1997) by providing the detailed statistical and econometric evidence on which that separate study is based.

Schiavo-Campo, de Tommaso, and Mukherjee briefly summarize the key findings of the earlier paper for the reader’s convenience and to permit this paper to stand alone. However, the purpose of the paper is to provide the country-by-country statistics. The reader is referred to the companion paper for a description and analysis of the main findings.

This paper — a joint product of the Office of the Chief Economist and Senior Vice President, Development Economics, and Europe and Central Asia, and Middle East and North Africa Technical Department, Public Sector Management and Information Technology Team — was produced as a background paper for *World Development Report 1997* on the role of the state in a changing world. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Marinette Gueverra, room H12-001, telephone 202-473-2959, fax 202-477-0669, Internet address mgueverra@worldbank.org. August 1997. (83 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

**AN INTERNATIONAL STATISTICAL SURVEY
OF GOVERNMENT EMPLOYMENT AND WAGES**

by

*Salvatore Schiavo-Campo
Giulio de Tommaso
Amitabha Mukherjee*

Public Sector Management and Information Technology Team
Technical Department for Europe, Central Asia, Middle East and North Africa
World Bank

**AN INTERNATIONAL STATISTICAL SURVEY
OF GOVERNMENT EMPLOYMENT AND WAGES**

CONTENTS

Preface.

| | |
|--|-----------|
| 1. Scope of the survey and methodological problems..... | 1 |
| 2. The key findings on government employment | 3 |
| 3. The key findings on government wages..... | 5 |
| 4. Changes over the last decade | 9 |
| 5. Determinants of government employment..... | 11 |
| 6. A concluding word..... | 13 |

Statistical Appendix:

| | |
|---|----|
| Government Employment and Wages, 1990's, by country and region..... | 14 |
|---|----|

Text tables:

| | |
|--|---|
| 1. Government Employment, <i>early 1990's</i> | 5 |
| 2. Government Wages, <i>early 1990's</i> | 7 |
| 3. Government Employment and Wages, <i>early 1980's and early 1990's</i> | 9 |

Text Figures:

| | |
|--|----|
| 1. Defining Government Employment..... | 2 |
| 2. Countries Covered in the Survey | 2b |
| 3. Government Employment, <i>early 1990's</i> | 5 |
| 4. Government Wages, <i>early 1990's</i> | 8 |
| 5. Government Employment and Wages, <i>early 1980's and early 1990's</i> | 10 |

STATISTICAL APPENDIX TABLES

| | <i>Page</i> |
|--|-------------|
| A-1: Population, Labor Force and Employment, in millions, all countries, recent years | |
| I: Africa | 16 |
| II: Asia | 17 |
| III: Eastern Europe and Former USSR..... | 18 |
| IV: Latin America and Caribbean | 19 |
| V: Middle East and North Africa | 20 |
| VI: OECD Countries..... | 20 |
| | |
| A-2: Public Sector Employment, all countries, recent years | |
| I: Africa | 21 |
| I.1 in thousands | |
| I.2 as percentage of population | |
| I.3 as percentage of labor force | |
| I.4 as percentage of total employment | |
| II: Asia | 25 |
| II.1 in thousands | |
| II.2 as percentage of population | |
| II.3 as percentage of labor force | |
| II.4 as percentage of total employment | |
| III: Eastern Europe and Former USSR..... | 29 |
| III.1 in thousands | |
| III.2 as percentage of population | |
| III.3 as percentage of labor force | |
| III.4 as percentage of total employment | |
| IV: Latin America and Caribbean..... | 33 |
| IV.1 in thousands | |
| IV.2 as percentage of population | |
| IV.3 as percentage of labor force | |
| IV.4 as percentage of total employment | |
| V: Middle East and North Africa..... | 37 |
| V.1 in thousands | |
| V.2 as percentage of population | |
| V.3 as percentage of labor force | |
| V.4 as percentage of total employment | |
| VI: OECD Countries | 39 |
| VI.1 in thousands | |
| VI.2 as percentage of population | |
| VI.3 as percentage of labor force | |
| VI.4 as percentage of total employment | |

A-3: Public Sector Wages, Manufacturing Wages and Per Capita GDP, all countries, recent years

| | |
|--|-----------|
| I: Africa | 41 |
| II: Asia | 41 |
| III: Eastern Europe and Former USSR..... | 42 |
| IV: Latin America and Caribbean..... | 42 |
| V: Middle East and North Africa..... | 43 |
| VI: OECD Countries | 43 |
| Methodological and Technical Notes..... | 45 |
| Sources..... | 49 |

PREFACE

This paper complements a separate study in this Series ("Government Employment and Pay: A Global and Regional Perspective") by providing the detailed statistical and econometric evidence on which that separate study is based. A brief summary of key findings is included here for the reader's convenience and in order to permit this paper to stand alone. The reader interested in the broader discussion or in policy issues is referred to the separate study--which also provides the full bibliographical references and proper acknowledgments of all those who helped or commented.

1. SCOPE OF THE SURVEY AND METHODOLOGICAL PROBLEMS¹

a. Methodological Problems

As Heller and Tait (1983, p. 35) noted: "It is surprising and depressing how little information is readily available on public sector employment and pay". Although this study attempts to remedy, in part, this state of affairs, the paucity of readily available data is explained by persisting methodological difficulties. There is no more hazardous cross-country comparison than in the area of "civil service" employment and wages. The following methodological problems have been pointed out years ago and are still present. For a detailed listing and discussion, the reader is referred to Heller and Tait (1983). The Notes to the Statistical Appendix explain in detail the definitions and sources used in this survey.

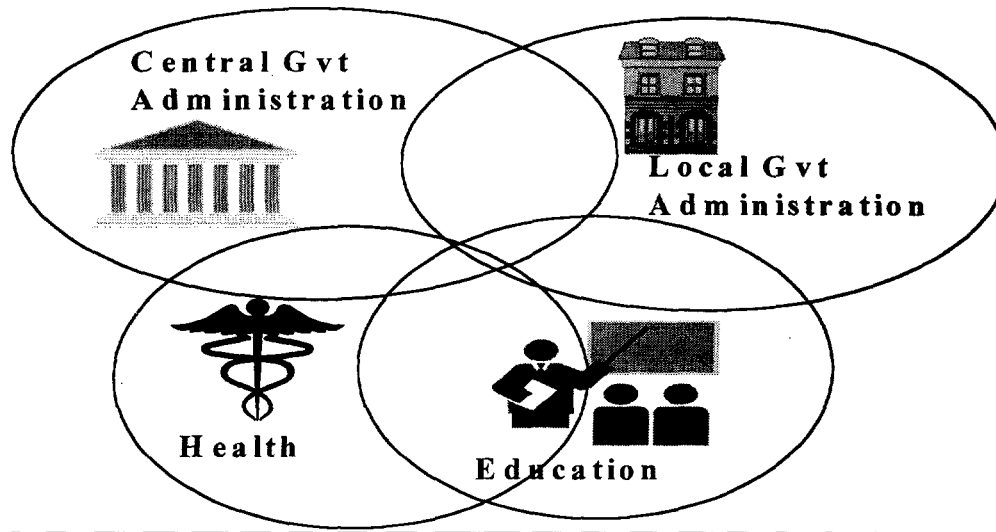
In the first place, statistics of any reliability simply don't exist in many countries. When reasonable data are available, employment comparisons are complicated by the fact that some countries include teachers and/or health workers in the civil service, others don't; some countries include contractual and seasonal (sometimes even daily) workers in government employment, others don't; local government employment may or may not include employees paid out of the central government budget; accordingly, large numbers of persons may be paid out of the central budget but are not listed among central personnel; paramilitary personnel (*gendarmes*, *carabinieri*, etc.) may be included in civilian personnel because of their public order functions, or in the armed forces because of their military status; employees of legislative bodies are sometimes included in government personnel, etc. And, because the basic social services—education and health—raise different policy and practical issues than government administration, it is useful to try and separate out employment of teaching and health personnel.

Figure 1 illustrates the overlapping nature of the main components of government employment, and the resulting gray definitional areas. The methodological difficulties arise because the intersection of the various components differs in different countries, and the definition of certain personnel in one or another category itself has an inevitable arbitrary and/or country-specific element. In this survey, we have taken care of using clear and uniform definitional criteria, country by country, and avoid any overlap between the four components. Consequently, the figures in the tables are additive and without duplication.

International comparisons are even more problematic for government wages than they are for employment. To begin with, the existence of different benefits-in-kind in different countries makes it impossible to be sure that differences in monetary compensation adequately reflect differences in total compensation.

¹ Unlike the following sections, which only present the gist of the findings (discussed at greater length in the companion paper "Government Employment and Pay: A Global and Regional Perspective.), a fuller methodological discussion is included here in order to permit the user to place the data in proper perspective. The Statistical Appendix also includes detailed methodological considerations.

Figure 1. The main components of government employment

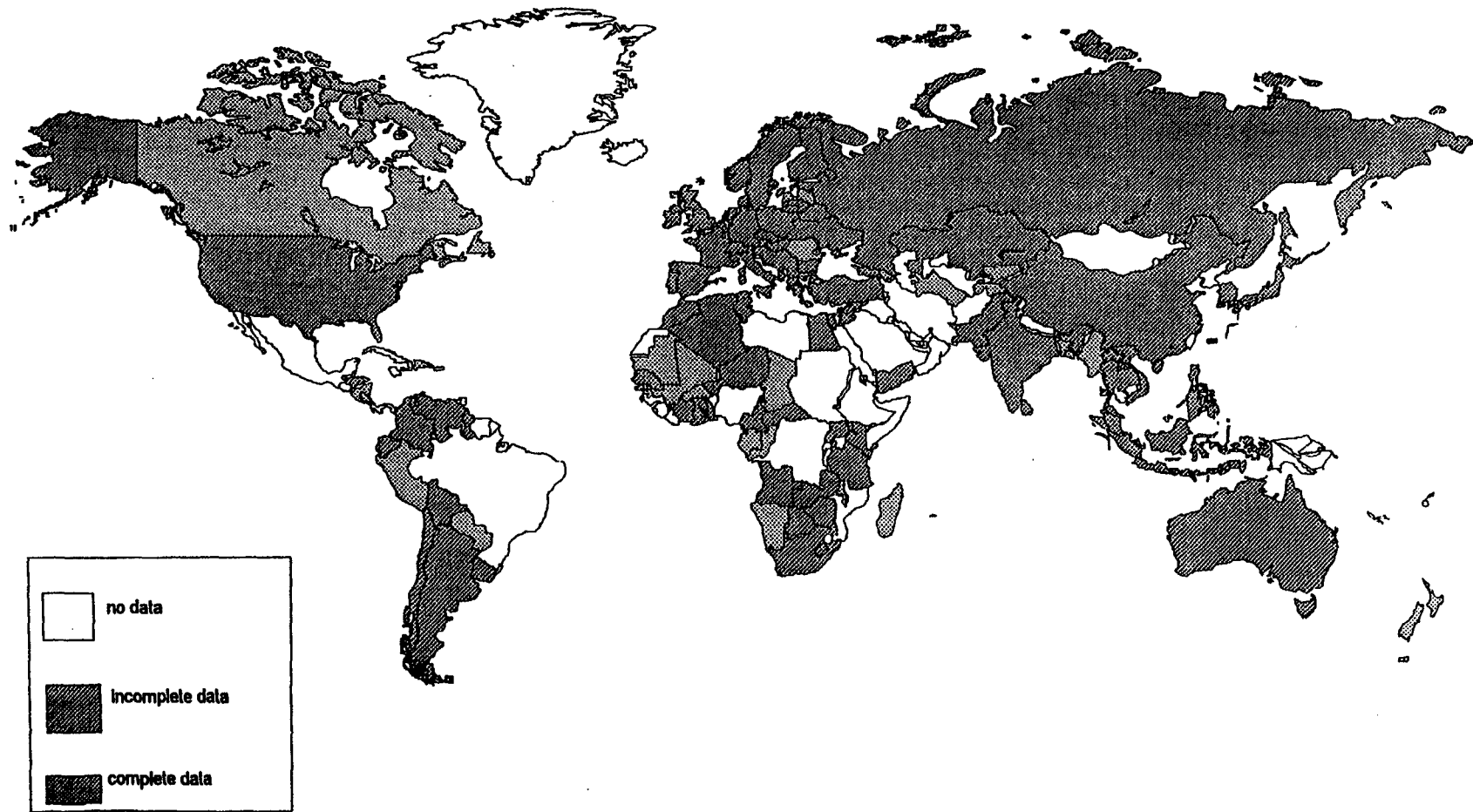


Even when comparisons are limited to monetary compensation, there are serious problems. If wage rates are derived from independent surveys or from official information on pay scales, it is impossible to treat non-wage allowances and other monetary benefits uniformly – because certain sources will include them in the wage package while others show only the basic salary. However, budgetary figures on the overall wage bill paid for through the central budget are generally reliable, because monetary allowances are usually captured in the central government budget, and properly classified under the wages and salaries item of the budget. For this reason, measuring the relative 'weight' of the government wage bill, by defining it as a fraction of GDP or of total expenditure, is both reasonable and reliable.

Compensation rates are a different matter: dividing the central government wage bill by the number of employees listed as working for the central government will always tend to inflate average compensation, because significant (and variable) numbers of employees are paid out of the central budget but work for, and are shown as part of, local government entities. Consequently, it is necessary, country by country and by recourse to different sources of information, to adjust the figures on personnel paid from the central government – in order to obtain a good approximation of average monetary compensation.

Assessing wage "adequacy", or even only ranking countries by relative levels of government wages, presents additional difficulties. Exchange rate problems make reliable conversion into a single numeraire difficult. Relating public wages in local currency to other meaningful variables also in local currency obviates the exchange rate problem, but raises the obvious issue of the appropriate denominator. The only reliable measure of the adequacy of government wages is through a statistically-representative survey of public and private salaries – for comparable skills, in a given country and at a given time. Because such surveys are not common (only a few among the World Bank's private sector assessment studies contain such information), this is an impossible standard when large-scale international comparisons are at issue. Accordingly, we have used in this study three measures of relative government wages: average central government wages relative to wages in manufacturing (the only statistic available, from

COUNTRIES COVERED IN OUR SURVEY



the International Labor Organization, for a large number of countries on a uniform basis); average wages as a multiple of per capita GDP; and what secondary sources do exist concerning the ratio of public to private wages for a few countries in each region.

These difficulties preclude the inclusion of all countries. We were able to collect and verify government employment and wage data for 80-100 countries in the early 1990s, including all sizable countries in every region (with the single exception of Brazil and Mexico) – the largest such survey to-date, accounting for about 90 percent of the world's population. (see Figure 2). As the source statements in the Statistical Appendix explain in detail, country by country, the information covered in this survey was obtained from international surveys, international and national country reports, World Bank, UN, OECD and IMF reports--and was verified with IMF and World Bank country economists and in many cases with World Bank Resident Missions. Note that the Appendix tables show all countries, whether or not reliable and complete data could be found. The text tables and the regional averages are based only on countries for which reliable data could be found or estimated concerning: central government administration employment; local government administration employment; teachers; and health personnel. In the course of the research, we also came across information on employment in state-owned enterprises and the military. This information is partial, not verified, and not used in the text: it is included in the Statistical Appendix because of the low cost of doing so and because it may be useful to the reader for other purposes. However, this paper deals exclusively with government employment and wages and not at all with employment in public enterprises or the military – which raises quite different policy and empirical questions.

Although the size of the sample for each region is sufficiently large to make it representative of the region as a whole (see Figure 2), the above qualifications make it clear that one should take the regional averages shown below only as pointers for further analysis. For example, the extremely low civil servants' compensation in Eastern Europe and the former USSR is, in part, a clue to the many in-kind subsidies and benefits enjoyed by public employees in that region. In a real sense, it is the country-by-country data in the Appendix which matter, although even these can be quite misleading in the absence of knowledge of the country and the circumstances.

2. THE KEY FINDINGS ON GOVERNMENT EMPLOYMENT

Table 1 and Figure 3 show civilian employment in central and local government administration, and teaching and health employment in the various regions – as percentage of population. The key findings are as follows:

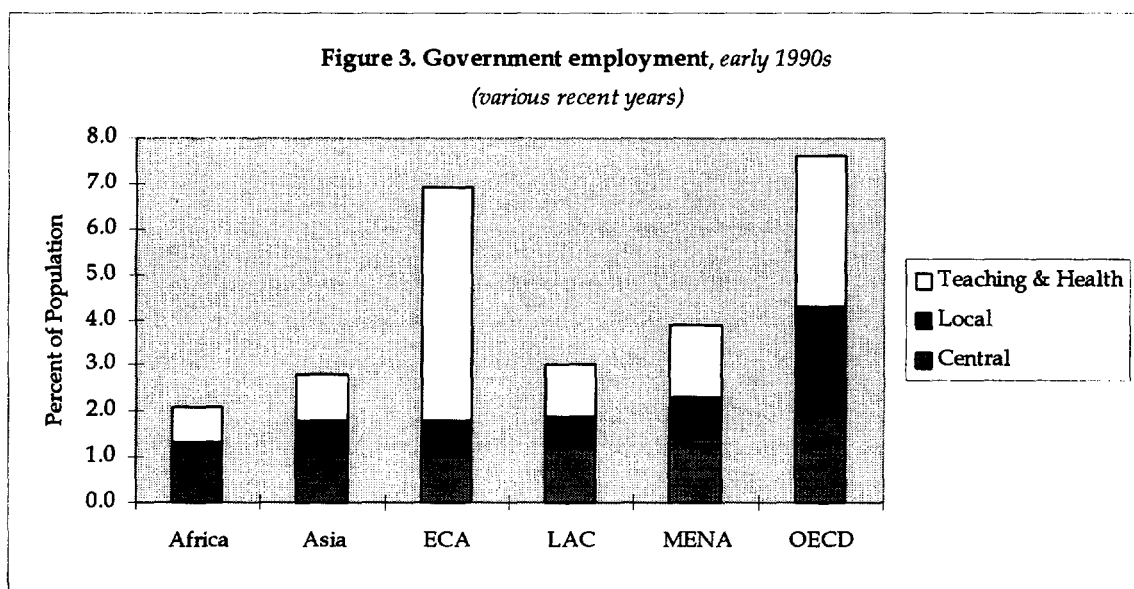
- worldwide, total government civilian employment currently averages (on an unweighted basis for all the countries of the sample) about 4.7% of population. It is relatively largest in the developed market economies of the OECD (7.7% of population), and second largest in Eastern Europe and the former Soviet Union (Europe and Central Asia – ECA), at 6.9% of population. Government employment is relatively smallest in Africa and Asia (respectively, 2.0% and 2.6% of population). Latin America and the Caribbean (LAC), and the Middle East and North Africa (MENA) are in between, with employment accounting for about 3.0% and 3.9% of population respectively;

- relative to total employment (see Table A-2), the inter-regional differences are much less marked, because of the significantly lower labor participation rate and higher unemployment in developing regions. The regional rankings change somewhat, moreover, with MENA moving up to the highest regional average. Worldwide, civilian government employment accounts on average for about 11% of total employment, with MENA countries highest at 17.5 %, OECD at 17.2%, ECA and LAC at 16.0% and 8.9%, respectively. Africa and Asia are at the low end with 6.7% and 6.3%, respectively;
- the picture changes if teachers and health personnel are excluded. Because of the large numbers of such personnel in ECA (from long-standing Soviet policy), the large overall employment in those countries is primarily in teaching and health. The central administration in that region is comparatively not large, and is very small in the former Soviet republics. Among developing regions, central administration is largest in the Middle East and North Africa. Overall, government administration in developing regions, at 1.7% of population, is less than half the relative size of OECD countries. Education and health personnel, too, average in developing regions (excluding ECA) less than half the level of OECD countries;
- during the 1980s, local government administration has grown to almost equal employment in central administration. Clearly, civil service reform efforts are badly incomplete if they do not include consideration of local government and of teaching and health personnel;
- predictably, inter-country and inter-regional variance is smallest for overall government employment (with a coefficient of variation of 0.48), than for either central or local administration or for education and health personnel. The inter-country variability of government employment is the only category for which there is no difference between industrial and developing countries, suggesting that the range of choices on the role of government does not diminish with economic growth. If there is a tendency toward "convergence" in public administration, it is not borne out by the facts of government employment.
- the relatively low variance in LAC for total government employment, combined with the high variance for central administration, local administration and health/education taken separately, points to the inverse correlation existing in that region between the size of central government and that of local administration. (The reasons are summarized in the next section);
- the high variance of teaching and health personnel in ECA (with a 9.0 coefficient of variation) results from a clear difference between Eastern Europe and the former USSR – with public employment in social sectors relatively much lower in Eastern Europe. To some extent, these sub-regional differences existed before the fall of the Berlin Wall in 1989. But in part, the difference is due to greater efforts in Eastern Europe since 1989 to improve education and health service efficiency and, to that extent, reduce personnel requirements.

Table 1. Government Employment, early 1990s
(as percent of population)

| | No. of Countries | General Government | Government Administration | | Teaching & Health |
|------------------------------|---------------------|-----------------------|---------------------------|------------|----------------------|
| | | | Central | Local | |
| Africa | 20 | 2.0 | 0.9 | 0.3 | 0.8 |
| Asia | 11 | 2.6 | 0.9 | 0.7 | 1.0 |
| Eastern Europe & former USSR | 17 | 6.9 | 1.0 | 0.8 | 5.1 |
| Latin America & Caribbean | 9 | 3.0 | 1.2 | 0.7 | 1.1 |
| Middle East & North Africa | 8 | 3.9 | 1.4 | 0.9 | 1.6 |
| OECD | 21 | 7.7 | 1.8 | 2.5 | 3.4 |
| Overall | 86 | 4.7 | 1.2 | 1.1 | 2.4 |

Source: Table A-2. All averages are unweighted.



3. THE KEY FINDINGS ON GOVERNMENT WAGES

Table 2 and Figure 4 show the fiscal weight of the central government wage bill, and average wages as a multiple of per capita GDP and in relation to private wage levels. The reader should keep in mind the qualifications made earlier concerning international comparisons of public wages and the relative nature of the notion of "adequacy". Note also that, while the data for the wage bill ratio and for average wages as multiple of GDP are averages for over 90 countries—and therefore highly representative—the ratios of public to private sector wages come from a handful of countries for which evidence (primary or secondary) can be found. The reader is

therefore advised to treat all of these figures—and especially those in the last column, with a large dose of salt².

The main findings are:

- Globally, the central government wage bill absorbs about 5.4% of GDP. With wage rates for local government roughly estimated from information for a few countries at about three-fourths of central government wages, and based on the employment information shown in Table 1, total civilian government salaries can be estimated to absorb about 9% of GDP as a worldwide average;
- the heaviest fiscal weight of the central government wage bill is in the Middle East and North Africa (9.8% of GDP), followed by Africa at 6.7% of GDP. Asia, the OECD countries and Latin America are all between 4.5% and 5% of GDP, and the lowest percentage of GDP is accounted for by the central government wage bill in Eastern Europe and former USSR (although from the greater incidence of benefits in kind);
- when measured as a multiple of per capita GDP, central government wages appear higher in Africa than in any other region, apparently contrary to widespread evidence concerning deterioration of public wages in Africa. This finding, however, is largely due to the lower participation rate in African countries (see Table A-1) and the higher (although unquantifiable) degree of underestimation of informal production and thus of GDP per capita. Furthermore, the African average is influenced by comparatively high salaries in franc-zone countries, which are 7-11 times per capita GDP. It is, thus, entirely possible that government wages may still be higher than needed to attract and retain qualified government personnel in franc-zone countries. In most of the rest of Africa, instead, the widespread consensus about wage inadequacy is most probably right;
- conversely, the relatively low multiplier for OECD countries is related to the higher participation rate as well as the much higher GDP and smaller skill differentials between public employees and the rest of the working population. As noted earlier, the low figure for ECA is in part explained by the existence of a variety of benefits-in-kind which are not captured in the available data. But the reality of government wage inadequacy in the region (especially the former Soviet Union) is undeniable;
- the above findings are supported by data for 16 countries, from a variety of sources, concerning the relationship of public to private wages for comparable skill-mixes. Although the data are fragmentary and for a small sample, the picture conforms roughly with the findings from the other indicators. Generally, government employment carries a “discount” of 10-20%—which is not unreasonable considering the greater job security. The lowest relative public wages are found in ECA; in this case, the figure is less misleading than the

² Another indicator of relative public wages exists as well: the ratio of public wages to average wages in manufacturing. This indicator permits much broader country coverage, because manufacturing wage data are collected and published by the ILO for a large number of countries on a regular basis. However, it gives a misleading comparison, as public wages are generally for white-collar skills, while wages in manufacturing are generally for lower-paid blue-collar jobs. The comparison (which we have carried out and is included in Table A-3 but is not shown in the text of this paper) is also misleading from a policy viewpoint—for it produces the false impression of a relatively well-off civil service.

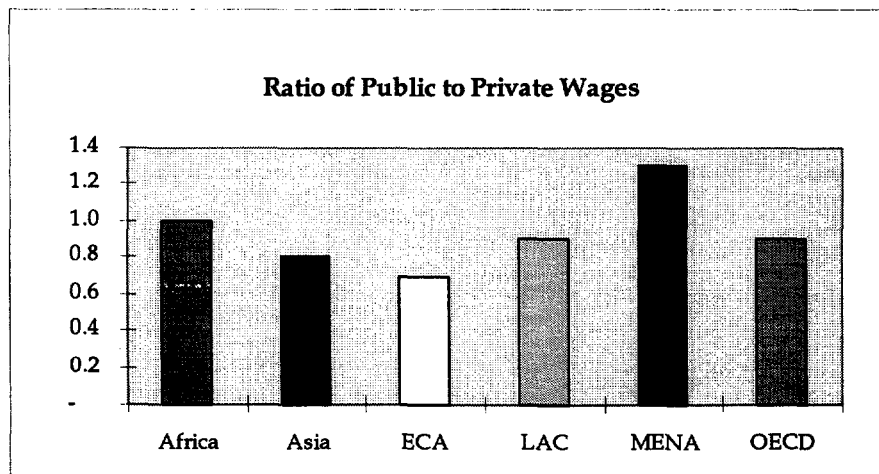
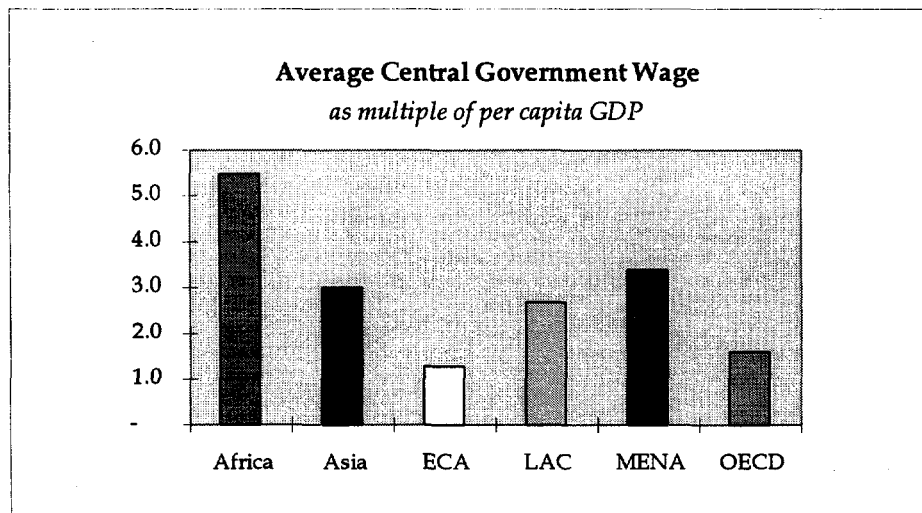
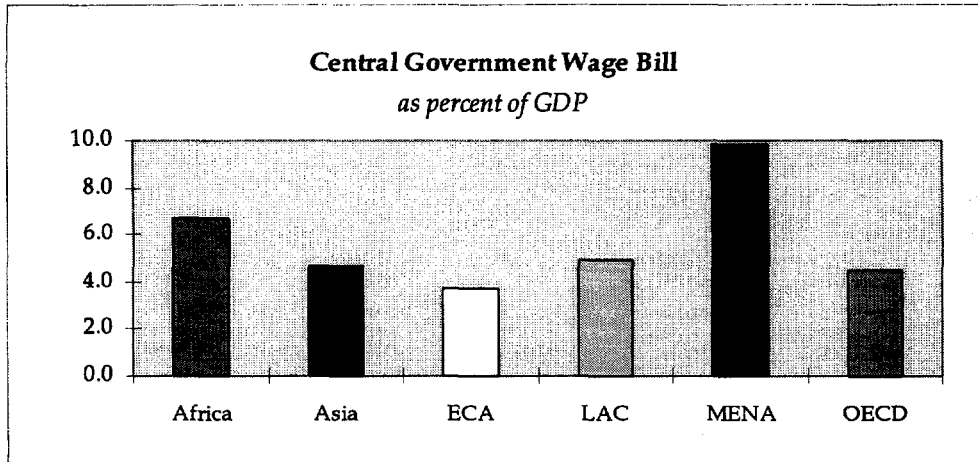
- simple multiple of per capita GDP, because “private” employees in the region also receive a variety of in-kind benefits. The highest government wages are found in the Middle East and North Africa, about one-third higher than comparable private compensation;
- at the risk of sounding pedantic, we must conclude this section with the same caveat as for employment: wage policy recommendations cannot be based on such aggregate evidence as presented here. However, the regional evidence does give some context to individual country data, and provides a basis for assessing broad trends over time—to which we now turn.

Table 2. Central Government Wages, 1990s

| | <i>No. of countries</i> | <i>Central Government Wages and Salaries as % of GDP</i> | <i>Average Central Government Wage as Multiple of per capita GDP</i> | <i>Ratio of Public to Private sector wages</i> |
|----------------|-----------------------------|--|--|--|
| Africa | 21 | 6.7 | 5.7 | 1.0 |
| Asia | 14 | 4.7 | 3.0 | 0.8 |
| ECA | 21 | 3.7 | 1.3 | 0.7 |
| LAC | 12 | 4.9 | 2.5 | 0.9 |
| MENA | 8 | 9.8 | 3.4 | 1.3 |
| OECD | 16 | 4.5 | 1.6 | 0.9 |
| Overall | 92 | 5.4 | 3.0 | 0.8 |

Source: Table A-3 for the first two columns; various reports and World Bank project documents, for about 16 countries, for the ratio of public and private wages.

Figure 4: Government wages, early 1990's



4. CHANGES OVER THE LAST DECADE

In 1983, Peter Heller and Alan Tait produced an international comparison of government employment and wages covering a sample of about 45-50 countries. Table 3 and Figure 5 compare some of their findings with our data for the same countries (hence different data from our larger sample). Furthermore, for comparability, it is necessary to limit the sample to central government and wages only. Nevertheless, the trends are clear. The following points emerge:

- A large contraction in both central government employment (relative to population) and the relative wage bill is evident in all regions, with the relative size of central government shrinking by about one-third when measured by employment and one-fourth when measured by the wage bill;
- Over the last 10-15 years, central government employment decreased in relative terms across the board, from about 2.5% of population to 1.5%;

**Table 3. Government Employment and Wages,
early 1980s and early 1990s**

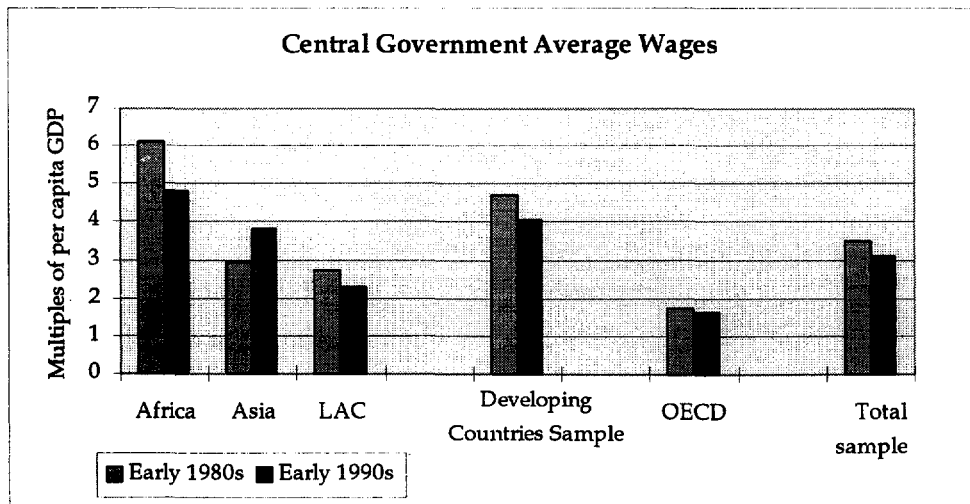
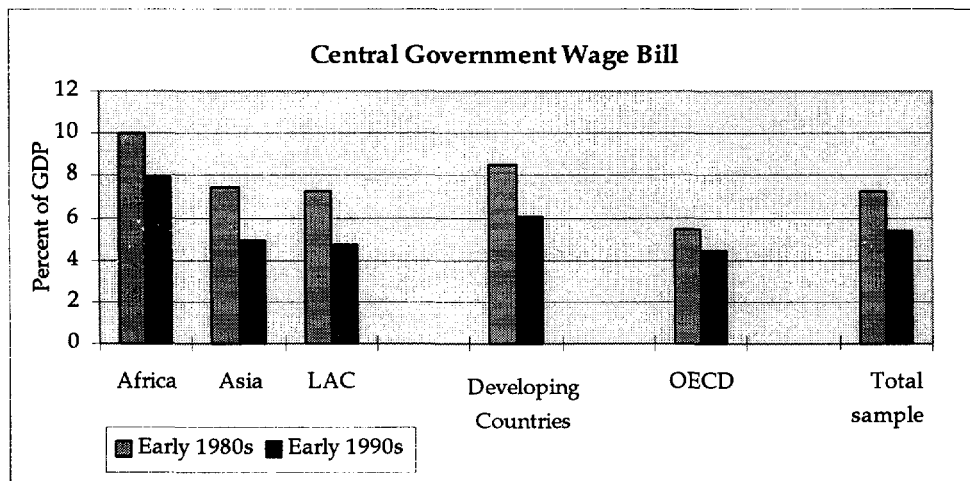
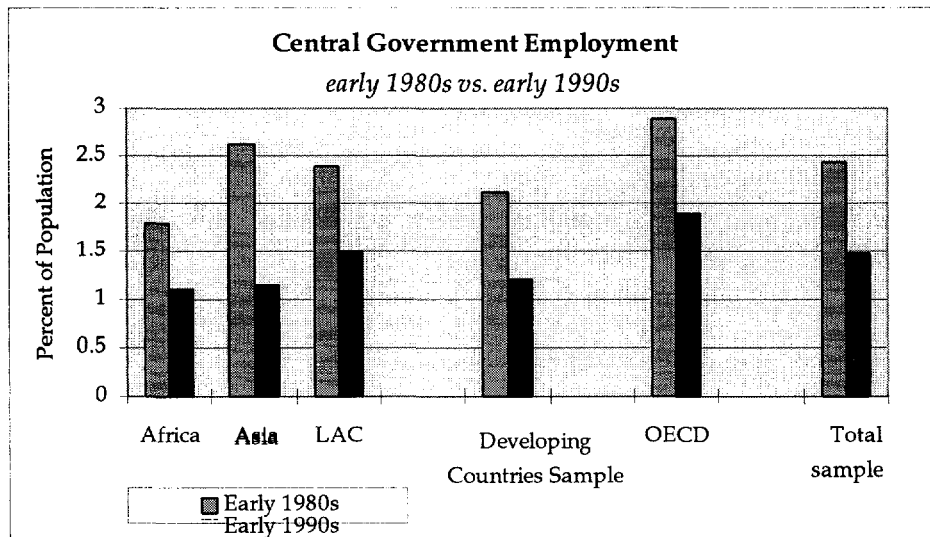
| | Central Government as percent of population | | | Central Government wage bill as percent of GDP | | | Central Government average wages as multiple of per capita GDP | | |
|------------------------------|--|-------------|-------------|---|-------------|-------------|--|-------------|-------------|
| | N | Early 1980s | Early 1990s | N | Early 1980s | Early 1990s | N | Early 1980s | Early 1990s |
| Africa | 13 | 1.8 | 1.1 | 9 | 10.0 | 7.9 | 13 | 6.1 | 4.8 |
| Asia | 5 | 2.6 | 1.1 | 6 | 7.5 | 4.9 | 5 | 2.9 | 3.8 |
| Latin America | 5 | 2.4 | 1.5 | 7 | 7.3 | 4.7 | 4 | 2.7 | 2.3 |
| Developing country sample | 23 | 2.2 | 1.2 | 22 | 8.5 | 6.1 | 22 | 4.7 | 4.1 |
| OECD countries | 15 | 2.9 | 1.9 | 14 | 5.5 | 4.4 | 11 | 1.7 | 1.6 |
| Total sample | 38 | 2.5 | 1.5 | 36 | 7.3 | 5.4 | 33 | 3.7 | 3.2 |

Source: For early 1980s Heller and Tait, 1983; for early 1990s Annex A-3, Annex A-4.

* Note that the data for the early 1990s are limited to the Heller and Tait sample. They are therefore different from those for the larger sample in this study. N represents the number of countries in the sample.

- Among developing regions, the reduction in relative government employment took place in Africa and Asia. In Asia, this reduction was partly offset by growth in local government. In LAC, an equally impressive reduction in central personnel is almost entirely explained by a vast shift from central to local government. In Africa, total government employment fell in the 1980s both relative to population and slightly in absolute terms;

Figure 5. Government Employment and Wages



- Central government wages fell in the 1980s by about 14% when measured as a multiple of per capita GDP. However, the decline was slight in OECD countries and substantial in Africa, with government salaries holding their own in LAC, and apparently increasing in Asia. Thus, it is developments in Africa which are largely responsible for the decline in relative government wages worldwide. Furthermore, this decline occurred during a decade of economic deterioration and negative growth in Africa. In the 1980s, consequently, while the economic welfare of the average civil servant improved slightly worldwide, and significantly in Asia, it declined sharply in Africa;
- For the developing country sample as a whole, the decline in the relative weight of the central government wage bill in the 1980s was a remarkable 28 percent.

5. THE DETERMINANTS OF GOVERNMENT EMPLOYMENT

According to Wagner's Law, the government tends to expand in relative size as the economy grows--both because of a consensus in favor of enlarging access to social services and because of a tendency for all large organizations to expand. Earlier studies gave some support to this proposition, and also brought out the positive association of government employment with education levels, availability of financing, and of course, population.

This study, based on a larger data set, confirms that population is by far the largest single influence on government employment levels, swamping the influence of any other variable. However, beyond this rather obvious finding, we have estimated the influence on employment *relative* to population of the following variables: (i) per capita income; (ii) government wages relative to per capita income; (iii) the fiscal deficit relative to GDP; and (iv) population itself. The equation has been estimated globally for each region, and separately for central government administration, local government administration, and public employment in the social sectors.

The Annex shows, globally and for each region, and for central government administration, local government administration, and public employment in the social sectors, the results of estimating the following equation:

$$E = f(C, GDP, WAG, DEF, POP), \text{ where}$$

- E = government employment as percent of population;
- GNP = per capita GDP in US dollars;
- WAG = average central government wage as percent of per capita GDP (both in local currency);
- DEF = central government fiscal deficit as percent of GDP (both in local currency);
- POP = population in thousands.

The suffixes in the Annex denote the following: CG, LG, SS are respectively, employment as percentage of population in central government, local government, and education and health, and GG is general government, i.e., the total of the above: ES denotes the entire sample; DEV denotes non-OECD countries, OECD, AFR, AS, ECA, LAC and MENA the various regions. (Thus, for example, GGLAC means total civilian government employment as percent of population in the Latin American sample of countries).

Taken as a whole, the results are consistently significant. With respect to the individual variables, the association with all three categories of relative government employment is close and positive for per capita income (confirming Wagner's Law); and close and negative for relative wages (confirming the standard expectation). For population, a significant, and negative, association is found only with relative central government employment in OECD and LAC countries (suggesting economies of scale in highly-developed central administrations). And the expected positive association of central government employment with the fiscal deficit is visible only in some developing regions--and then very weakly--with no significant relationship emerging anywhere else or for other categories of government employment. Clearly, it is the availability of financing which matters--as found in earlier studies--and not the size of the deficit per se.

The global findings, however, are almost entirely due to strong results in Africa and LAC. In ECA, the lack of significant results is only to be expected, given the special data difficulties and the magnitude and fluidity of the transition. In Asia, it would appear that country-specific characteristics (other than income, wages, the deficit or population) are dominant; more detailed research, however, is needed before ruling out the influence of per capita income or of relative wages on government employment in that region. On balance, there is conclusive evidence that in developing countries relative government employment, other things being equal, is higher where per capita income is higher and relative wages are lower.

In OECD countries, the only significant association is the one previously noted between population and central government employment. The lack of association between government employment and per capita income is particularly interesting, suggesting either that the Wagner tendency was counteracted by deliberate policy in the 1980s, or that "Wagner's Law" becomes inoperative beyond a certain level of development (or both).

6. A CONCLUDING WORD

Concerning the comparison of government employment and pay, it is essential to point out that differences in government size, or in relative wages, *by themselves*, show broad trends and "flag" possible concerns, but cannot be allowed to form the basis for policy recommendations. In-depth country-specific analysis is needed to justify any recommendation concerning the size of government employment or the adequacy of the level and structure of wages.

Concerning the determinants of government employment, there is no longer a reasonable doubt that in developing countries comparatively high central government

employment is associated with comparatively high per capita income and lower relative wages. But, of course, statistical associations say nothing about causality or its direction. Furthermore, the Wagner tendency is just that—a tendency—which, as the data for the OECD suggest, can be counteracted by deliberate policy. Concerning wages and employment, it would be especially risky to infer from cross-sectional data anything concerning the likelihood that wages would rise (or fall) if employment were reduced (or increased) in any particular country. All one can say is the obvious, albeit powerful, statement that retrenchment offers the *possibility* of improving employee compensation, while employment expansion carries a strong *risk* of eroding wages.

STATISTICAL APPENDIX

TABLE A-1
POPULATION, LABOR AND EMPLOYMENT
(in thousands and percent)

| AFRICA | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non-Agricultura Employment (7) |
|------------------|-------------------|-----------------------|----------------------------------|-------------------|-----------------|---------------------------------|--------------------------------------|
| Angola | 10,442 | 4,907 | 47 | 736 | 4,171 | 15 | |
| Benin | 5,325 | 2,377 | 45 | | | | |
| Botswana | 1,401 | 492 | 35 | 123 | 369 | 25 | 219 |
| Burkina-Faso | 10,118 | 5,276 | 52 | 27 | 5,249 | 1 | |
| Burundi | 5,500 | 3,322 | 60 | 7 | 3,315 | | 38 |
| Cameroon | 12,986 | 5,226 | 40 | 1,307 | 3,920 | 25 | |
| Cape Verde | 372 | 122 | 33 | 31 | 91 | 25 | |
| Central A R | 3,234 | 1,565 | 48 | 470 | 1,096 | 30 | 13 |
| Chad | 6,288 | 3,009 | 48 | | | | |
| Comoros | 446 | 127 | 28 | 25 | 101 | 20 | |
| Congo | 2,577 | 1,041 | 40 | | | 20 | |
| Côte d'Ivoire | 13,841 | 5,020 | 36 | 351 | 4,669 | | 332 |
| Djibouti | 603 | 191 | 32 | 57 | 134 | 7 | |
| Equatorial Guine | 386 | 166 | 43 | | | 30 | |
| Eritrea | 3,579 | | | | | | |
| Ethiopia | 54,890 | 23,495 | 43 | 63 | 23,432 | | 583 |
| Gabon | 1,301 | 606 | 47 | | | | 93 |
| Gambia | 1,079 | 531 | 49 | | | | 24 |
| Ghana | 16,639 | 7,900 | 47 | 790 | 7,110 | | 172 |
| Guinea | 6,425 | 3,139 | 49 | | | 10 | |
| Guinea-Bissau | 1,044 | 503 | 48 | 201 | 302 | | |
| Kenya | 26,017 | 12,923 | 50 | 4,523 | 8,400 | 40 | 1170 |
| Lesotho | 1,942 | 808 | 42 | 323 | 485 | 35 | 1162 |
| Liberia | 2,719 | 1,168 | 43 | | | 40 | |
| Madagascar | 13,100 | 6,785 | 52 | 16 | 6,769 | | 210 |
| Malawi | 9,532 | 5,075 | 53 | | | | 273 |
| Mali | 9,524 | 5,180 | 54 | | | | |
| Mauritania | 2,215 | 1,015 | 46 | 203 | 812 | 20 | |
| Mauritius | 1,115 | 460 | 41 | 7 | 453 | 2 | 251 |
| Mozambique | 15,463 | 8,390 | 54 | | | | |
| Namibia | 1,508 | 625 | 41 | 136 | 489 | 22 | 184 |
| Nigeria | 108,014 | 43,059 | 40 | 12,057 | 31,002 | 28 | |
| Niger | 8,730 | 4,238 | 49 | 1,907 | 2,331 | 45 | |
| Rwanda | 7,755 | 4,099 | 53 | | | | 22 |
| Sao Tome & Prin | 125 | 69 | | 15 | 54 | 27 | |
| Senegal | 8,263 | 3,630 | 44 | 374 | 3,256 | 10 | |
| Seychelles | 72 | | | | | | 21 |
| Sierra Leone | 4,399 | 1,638 | 37 | | | | |
| Somalia | 8,775 | 4,153 | 47 | | | | 63 |
| South Africa | 40,440 | 15,817 | 39 | 5,156 | 10,661 | 33 | 4951 |
| Sudan | 27,364 | 10,073 | 37 | 5 | 10,068 | 30 | |
| Swaziland | 906 | 292 | 32 | 44 | 248 | 15 | 75 |
| Tanzania | 28,019 | 13,771 | 49 | 2,754 | 11,017 | 20 | |
| Togo | 3,885 | 1,503 | 39 | 256 | 1,247 | 17 | 56 |
| Uganda | 18,026 | 8,875 | 49 | | | | |
| Zaire | 41,231 | 14,113 | 34 | | | | |
| Zambia | 8,936 | 2,934 | 33 | 587 | 2,347 | 20 | 322 |
| Zimbabwe | 10,739 | 4,286 | 40 | 1,929 | 2,357 | 45 | 947 |
| AVERAGE | | | 43 | | | 15 | |

Column averages encompass only those countries for which the information is complete

TABLE A-1
POPULATION, LABOR AND EMPLOYMENT
(in thousands and percent)

| ASIA | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non-Agricultural Employment (7) |
|------------------|-------------------|-----------------------|----------------------------------|-------------------|-----------------|---------------------------------|---------------------------------------|
| Afghanistan | 22,789 | 7,877 | 35 | 996 | 6,881 | 13 | |
| Bangladesh | 117,941 | 58,873 | 50 | 15,307 | 43,566 | 26 | 15,804 |
| Bhutan | 675 | | | | | | 24,542 |
| Cambodia | 9,951 | 4,949 | 50 | | | | |
| China | 1,190,918 | 715,419 | 60 | 19,316 | 696,103 | 3 | 262,540 |
| Fiji | 767 | 283 | 37 | 15 | 268 | 5 | 93 |
| India | 913,600 | 394,330 | 43 | 36,758 | 357,572 | 9 | 24,542 |
| Indonesia | 190,389 | 88,651 | 47 | 2,660 | 85,991 | 3 | 35,251 |
| Kiribati | 76 | | | | | | 9,691 |
| Korea | 44,453 | 21,221 | 48 | 424 | 20,797 | 2 | 12,116 |
| Lao PDR | 4,748 | 2,316 | 49 | 486 | 1,830 | 21 | |
| Malaysia | 19,047 | 7,653 | 40 | 222 | 7,431 | 3 | |
| Maldives | 246 | 100 | 41 | | | | 42 |
| Marshall Islands | | | | 1,432 | | | |
| Micronesia | 108 | | | 4,140 | | | |
| Mongolia | 2,363 | 1,152 | 49 | 72 | | 6 | |
| Myanmar | 45,581 | 23,170 | 51 | 541 | 23,168 | 2 | 5,266 |
| Nepal | | | | | | | |
| Pakistan | 126,284 | 48,595 | 38 | 4,860 | 43,736 | 10 | 17,362 |
| Papua New Guinea | | | | | | | |
| Philippines | 67,038 | 27,104 | 40 | 2,439 | 24,665 | 9 | 3,166 |
| Singapore | 2,930 | 1,384 | 47 | 37 | 1,347 | 3 | 1,644 |
| Sri Lanka | 17,865 | 7,480 | 42 | 831 | 5,201 | 14 | 386 |
| Solomon Islands | | | | | | | |
| Thailand | 58,064 | 31,063 | 53 | 994 | 30,069 | 3 | 9,886 |
| Tonga | | | | | | | 19 |
| Vanuatu | 161 | 80 | 50 | 13 | 67 | 16 | 17 |
| Vietnam | 72,510 | 31,819 | 44 | 2,323 | 29,496 | 7 | 9 |
| AVERAGE | | | 46 | | | 8 | |

Column averages encompass only those countries for which the information is complete

TABLE A-1
POPULATION, LABOR AND EMPLOYMENT
(in thousand and percent)

| EASTERN EUROPE AND FORMER USSR | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non-Agricultural Employment (7) |
|---|---------------------------|--------------------------------|---|---------------------------|-------------------------|--|--|
| Albania | 3,202 | 1,704 | 53 | 307 | 1,397 | 18 | 646 |
| Bosnia | 3,776 | 1,054 | 28 | | | | |
| Bulgaria | 8,870 | 4,500 | 51 | 720 | 3,780 | 16 | 1,893 |
| Croatia | 4,511 | 1,900 | 42 | 247 | 1,653 | 13 | 1,052 |
| Czech Republic | 10,296 | 5,010 | 49 | 165 | 4,845 | 3 | 4,699 |
| Hungary | 10,210 | 5,353 | 52 | 557 | 4,796 | 10 | 3,747 |
| Macedonia | 2,075 | 947 | 46 | 185 | 508 | 20 | 362 |
| Poland | 38,303 | 20,126 | 53 | 3,180 | 16,946 | 16 | 11,602 |
| Romania | 22,781 | 12,082 | 53 | 965 | 11,117 | 8 | 6,017 |
| Slovakia | 5,313 | 2,350 | 44 | 348 | 2,002 | 15 | 1,957 |
| Slovenia | 1,937 | 743 | 38 | 107 | 636 | 14 | 796 |
| Serbia | 10,394 | 6,747 | 65 | 1,496 | 5,251 | 22 | |
| Turkey | 59,597 | 25,153 | 42 | 3,169 | 21,984 | 13 | 3,906 |
| Former Soviet Union | | | | | | | |
| Armenia | 3,731 | 1,633 | 44 | 84 | 1,549 | 5 | 983 |
| Azerbaijan | 7,384 | 2,877 | 39 | 400 | 2,477 | 14 | 1,668 |
| Belarus | 10,188 | 4,826 | 47 | 68 | 4,758 | 1 | 3,492 |
| Estonia | 1,492 | 716 | 48 | 51 | 665 | 7 | 422 |
| Georgia | 5,446 | 2,521 | 46 | 126 | 2,395 | 5 | 1,230 |
| Kazakhstan | 16,952 | 7,390 | 44 | 81 | 7,309 | 1 | 6 |
| Kyrgyz R | 4,590 | 1,839 | 40 | 218 | 1,621 | 12 | 896 |
| Latvia | 2,530 | 1,397 | 55 | 208 | 1,189 | 15 | 1,002 |
| Lithuania | 3,712 | 1,841 | 50 | 112 | 1,729 | 6 | 1,284 |
| Moldova | 4,408 | 2,052 | 47 | 21 | 2,031 | 1 | 912 |
| Russia | 148,673 | 72,610 | 49 | 5,664 | 66,946 | 8 | 60,992 |
| Tajikistan | 5,767 | 1,912 | 33 | 38 | 1,874 | 2 | 962 |
| Turkmenistan | 3,921 | 1,573 | 40 | 22 | 1,551 | 1 | 925 |
| Ukraine | 51,551 | 24,028 | 47 | 72 | 23,956 | 0 | 17,708 |
| Uzbekistan | 21,860 | 8,285 | 38 | 188 | 8,097 | 2 | 4,485 |
| AVERAGE | | | 46 | | | 9 | |

TABLE A-1
POPULATION, LABOR AND EMPLOYMENT
(in thousands and percent)

| LATIN AMERICA AND THE CARIBBEAN | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non-Agricultural Employment (7) |
|---------------------------------------|-------------------|-----------------------|----------------------------------|-------------------|-----------------|---------------------------------|---------------------------------------|
| Antigua & Barbuda | 64 | 29 | 44 | | | | |
| Argentina | 34,194 | 13,225 | 39 | 1,587 | 11,638 | 12 | 10,524 |
| Bahamas | 272 | 139 | 51 | 18 | 121 | 13 | 114 |
| Barbados | 260 | 134 | 52 | 28 | 106 | 21 | 95 |
| Belize | 211 | 68 | 32 | 8 | 60 | 11 | 48 |
| Bermuda | 63 | | | | | | |
| Bolivia | 7,237 | 2,900 | 40 | 180 | 2,720 | 6 | 1,178 |
| Brazil | 159,128 | 71,021 | 45 | 3,480 | 67,541 | 5 | 47,920 |
| Chile | 13,994 | 5,468 | 39 | 328 | 5,140 | 6 | 4,179 |
| Colombia | 36,330 | 14,513 | 40 | 1,147 | 13,366 | 8 | 4,773 |
| Costa Rica | 3,304 | 1,288 | 39 | 52 | 1,236 | 4 | 669 |
| Dominican Republic | 7,622 | 3,184 | 42 | | | | - |
| Ecuador | 10,980 | 3,582 | 33 | 254 | 3,328 | 7 | 2,509 |
| El Salvador | 5,635 | 2,147 | 38 | 81 | 2,066 | 4 | 244 |
| Guatemala | 10,322 | 3,654 | 35 | 1 | 3,653 | | 609 |
| Guyana | 826 | 342 | 41 | 8 | 334 | 2 | - |
| Honduras | 5,750 | 1,948 | 34 | 195 | 1,753 | 10 | 1,035 |
| Jamaica | 2,497 | 1,243 | 50 | 172 | 1,072 | 14 | 662 |
| Mexico | 88,543 | 35,430 | 40 | 3,472 | 31,958 | 10 | 23,990 |
| Nicaragua | 4,156 | 1,503 | 36 | 243 | 1,260 | 16 | 186 |
| Paraguay | 4,788 | 1,810 | 38 | 203 | 1,607 | 11 | 1,009 |
| Peru | 23,238 | 8,414 | 36 | 1,262 | 7,152 | 15 | 2,671 |
| Suriname | 407 | 148 | 36 | 17 | 131 | | 84 |
| Trinidad and Tobago | 1,295 | 519 | 40 | 100 | 419 | 19 | 275 |
| Uruguay | 3,163 | 1,414 | 45 | 127 | 1,287 | 9 | 588 |
| Venezuela | 21,177 | 8,222 | 39 | 740 | 7,482 | 9 | 5,588 |
| AVERAGE | | | 39 | | | 9 | |

Column averages encompass only those countries for which the information is complete

TABLE A-1
POPULATION, LABOR AND EMPLOYMENT

| MIDDLE EAST AND NORTH AFRICA | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non- Agricultural Employment (7) |
|---|---------------------------|--------------------------------|---|---------------------------|-------------------------|--|---|
| Algeria | 26,722 | 6,503 | 24 | 1,951 | 4,552 | 30 | 3,413 |
| Bahrain | 516 | 271 | 52 | 41 | 230 | 15 | |
| Egypt | 57,556 | 16,013 | 28 | 1,745 | 14,268 | 11 | 6,714 |
| Jordan | 4,102 | 1,124 | 27 | 169 | 955 | 15 | 311 |
| Lebanon | 3,855 | 992 | 26 | 347 | 645 | 35 | |
| Morocco | 25,945 | 8,567 | 33 | 1,371 | 7,196 | 16 | 3,369 |
| Syria | 13,696 | 3,491 | 25 | 262 | 3,229 | 8 | 2,333 |
| Tunisia | 8,656 | 2,818 | 33 | 451 | 2,367 | 16 | 1,469 |
| WB-Gaza | 2,500 | 369 | 15 | 144 | 225 | 39 | |
| Yemen | 13,196 | 2,885 | 22 | 793 | 2,092 | 28 | |
| AVERAGE | | | 29 | | | 21 | |

| OECD | Population (1) | Labor Force (2) | Participation Rate (%) (3) | Unemployed (4) | Employed (5) | Unemployment Rate (%) (6) | Non-Agricultural Employment (7) |
|----------------|---------------------------|--------------------------------|---|---------------------------|-------------------------|--|--|
| Australia | 17,598 | 8,268 | 47 | 736 | 7,532 | 9 | 5,740 |
| Austria | 7,987 | 3,470 | 43 | 149 | 3,321 | 4 | 3,329 |
| Belgium | 10,048 | 4,158 | 41 | 586 | 3,700 | 14 | 3,647 |
| Canada | 28,782 | 13,691 | 48 | 1,314 | 12,377 | 10 | 9,897 |
| Denmark | 5,165 | 2,874 | 56 | 354 | 2,600 | 12 | 2,428 |
| Finland | 5,058 | 2,572 | 51 | 566 | 2,006 | 22 | 1,693 |
| France | 57,472 | 25,764 | 45 | 3,246 | 22,518 | 13 | 19,249 |
| Germany | 80,693 | 42,089 | 52 | 4,167 | 37,922 | 10 | 25,810 |
| Greece | 10,365 | 3,880 | 37 | 392 | 3,488 | 10 | 2,926 |
| Ireland | 3,533 | 1,553 | 44 | 248 | 1,305 | 16 | 1,036 |
| Italy | 57,121 | 23,459 | 41 | 2,862 | 20,597 | 12 | 18,430 |
| Japan | 124,469 | 63,317 | 51 | 1,836 | 61,481 | 3 | 51,580 |
| Netherlands | 15,381 | 7,090 | 46 | 510 | 6,580 | 7 | 6,428 |
| New Zealand | 3,487 | 1,624 | 47 | 122 | 1,502 | | |
| Norway | 4,337 | 2,193 | 51 | 118 | 2,075 | 5 | 2,075 |
| Portugal | 9,481 | 4,859 | 51 | 219 | 4,640 | 7 | 3,942 |
| Spain | 39,481 | 14,848 | 38 | 3,638 | 11,210 | 25 | 10,579 |
| Sweden | 8,691 | 4,360 | 50 | 384 | 3,976 | 9 | 3,791 |
| Switzerland | 7,052 | 3,200 | 45 | 150 | 3,050 | 5 | 3,555 |
| United Kingdom | 57,918 | 27,821 | 48 | 2,587 | 25,234 | 9 | 21,279 |
| US | 258,000 | 124,800 | 48 | 6,864 | 117,936 | 6 | 114,034 |
| AVERAGE | | | 47 | | | 10 | |

Column averages encompass only those countries for which the information is complete

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in thousands)

| AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|---------------------|--|------------------------|----------------|--------|-----------------------------|-------------------------|--------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Angola | 117 | 20 | 38 | 28 | 202 | | 140 |
| Benin | | | | | | | 5 |
| Botswana | 48 | 15 | 15 | 3 | 82 | 13 | 8 |
| Burkina-Faso | 37 | | | | | | 6 |
| Burundi | 8 | | 16 | 4 | | 7 | 13 |
| Cameroon | 74 | 30 | 68 | 7 | 178 | 150 | 15 |
| Cape Verde | 5 | 1 | 5 | 1 | 12 | 6 | 1 |
| Central A R | 29 | 7 | 6 | 1 | 42 | | 3 |
| Chad | 16 | | 9 | 3 | | | 25 |
| Comoros | 2 | | 3 | 1 | 6 | | |
| Congo | 33 | | 26 | 11 | 70 | | 10 |
| Côte d'Ivoire | 46 | 12 | 50 | 7 | 115 | | 8 |
| Djibouti | 9 | | 2 | 1 | | 18 | 8 |
| Equatorial Guinea | | | | | | | 1 |
| Eritrea | | | | | | | 55 |
| Ethiopia | | | 9 | | 241 | 245 | 120 |
| Gabon | 34 | 33 | 7 | | 73 | 21 | 5 |
| Gambia | 3 | 1 | 4 | 2 | 10 | | 1 |
| Ghana | 36 | 15 | 165 | 39 | 254 | 199 | 7 |
| Guinea | | | | | | | 10 |
| Guinea-Bissau | 5 | 2 | 6 | 2 | 15 | | 9 |
| Kenya | 225 | 50 | 223 | 34 | 532 | 156 | 24 |
| Lesotho | 19 | | 9 | | | | 2 |
| Liberia | | | | | | | |
| Madagascar | 95 | | | | | 35 | 21 |
| Malawi | 52 | | 47 | 14 | | | 8 |
| Mali | 32 | | | | | 14 | 7 |
| Mauritania | 8 | | 9 | 3 | | | |
| Mauritius | 37 | 5 | 10 | 9 | 62 | | |
| Mozambique | | | | | | | |
| Namibia | 64 | | 2 | 1 | | | 8 |
| Nigeria | 393 | | 24 | 5 | | | 77 |
| Niger | 24 | | 14 | 3 | | 9 | 5 |
| Rwanda | | | | | | | 40 |
| Sao Tome & Principe | | | | | 4 | - | |
| Senegal | 32 | 5 | 24 | 5 | 66 | | 13 |
| Seychelles | | | | | | | |
| Sierra Leone | | | | | | | 6 |
| Somalia | | | | | | | |
| South Africa | 564 | 451 | 250 | 93 | 1359 | | 148 |
| Sudan | | | | | | | 119 |
| Swaziland | | | | | | | |
| Tanzania | 138 | 22 | 116 | 25 | 301 | | 35 |
| Togo | 16 | 5 | 13 | 4 | 37 | 28 | 7 |
| Uganda | 38 | 28 | 97 | 8 | 170 | | 50 |
| Zaire | | | 200 | | 423 | 99 | 28 |
| Zambia | 71 | 18 | 47 | 14 | 150 | | 22 |
| Zimbabwe | 65 | 25 | 92 | 23 | 205 | | 45 |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of population)

| AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Angola | 1.1 | 0.2 | 0.4 | 0.3 | 1.9 | 1.3 |
| Benin | | | | | | 0.1 |
| Botswana | 3.5 | 1.1 | 1.1 | 0.2 | 5.8 | 0.5 |
| Burkina-Faso | 0.4 | | | | | 0.1 |
| Burundi | 0.1 | | 0.3 | 0.1 | | 0.2 |
| Cameroon | 0.6 | 0.2 | 0.5 | 0.1 | 1.4 | 0.1 |
| Cape Verde | 1.2 | 0.3 | 1.3 | 0.4 | 3.2 | 0.3 |
| Central A R | 0.9 | 0.2 | 0.2 | 0.0 | 1.3 | 0.1 |
| Chad | 0.2 | | 0.1 | | | 0.4 |
| Comoros | 0.4 | 0.1 | 0.6 | 0.1 | 1.2 | |
| Congo | 1.3 | | 1.0 | 0.4 | | 0.4 |
| Côte d'Ivoire | 0.3 | 0.1 | 0.4 | 0.0 | 0.8 | 0.1 |
| Djibouti | 1.5 | | 0.3 | 0.2 | 2.0 | 1.4 |
| Equatorial Guinea | | | | | | 0.3 |
| Eritrea | | | | | | 1.5 |
| Ethiopia | | | | | | 0.2 |
| Gabon | 2.6 | 2.5 | 0.5 | | | 0.4 |
| Gambia | 0.3 | 0.1 | 0.3 | 0.2 | 0.9 | 0.1 |
| Ghana | 0.2 | 0.1 | 1.0 | 0.2 | 1.5 | |
| Guinea | | | | | | 0.2 |
| Guinea-Bissau | 0.5 | 0.2 | 0.5 | 0.2 | 1.5 | 0.9 |
| Kenya | 0.9 | 0.2 | 0.9 | 0.1 | 2.0 | 0.1 |
| Lesotho | 1.0 | | 0.5 | | | 0.1 |
| Liberia | | | | | | |
| Madagascar | 0.7 | | | | | 0.2 |
| Malawi | 0.5 | | 0.5 | 0.1 | 1.2 | 0.1 |
| Mali | 0.3 | | | | | 0.1 |
| Mauritania | 0.4 | | 0.4 | 0.1 | | |
| Mauritius | 3.3 | 0.5 | 0.9 | 0.8 | 5.5 | |
| Mozambique | | | | | | |
| Namibia | 4.2 | | 0.1 | 0.0 | | 0.5 |
| Nigeria | 0.4 | | | | | 0.1 |
| Niger | 0.3 | | 0.2 | 0.1 | | 0.1 |
| Rwanda | | | | | | 0.5 |
| Sao Tome & Principe | | | | | | |
| Senegal | 0.4 | 0.1 | 0.3 | 0.1 | 0.8 | 0.2 |
| Seychelles | | | | | | 0.4 |
| Sierra Leone | | | | | | 0.1 |
| Somalia | | | | | | |
| South Africa | 1.4 | 1.1 | 0.6 | 0.2 | 3.4 | 0.4 |
| Sudan | | | | | | 0.4 |
| Swaziland | | | | | | |
| Tanzania | 0.5 | 0.1 | 0.4 | 0.1 | 1.1 | 0.1 |
| Togo | 0.4 | 0.1 | 0.3 | 0.1 | 0.9 | 0.2 |
| Uganda | 0.2 | 0.2 | 0.5 | | 0.9 | 0.3 |
| Zaire | | | 0.5 | | 1.0 | 0.1 |
| Zambia | 0.8 | 0.2 | 0.5 | 0.2 | 1.7 | 0.2 |
| Zimbabwe | 0.6 | 0.2 | 0.9 | 0.2 | 1.9 | 0.4 |
| AVERAGE | 0.9 | 0.3 | 0.6 | 0.2 | 2.0 | 0.3 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of labor force)

| AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Angola | 2.4 | 0.4 | 0.8 | 0.6 | 4.1 | 5.9 |
| Benin | | | | | | |
| Botswana | 9.8 | 3.1 | 3.1 | 0.6 | 16.6 | 23.4 |
| Burkina-Faso | 0.7 | | | | | |
| Burundi | 0.2 | | 0.5 | 0.1 | | 0.6 |
| Cameroon | 1.4 | 0.6 | 1.3 | 0.1 | 3.4 | 5.4 |
| Cape Verde | 3.8 | 1.0 | 3.9 | 1.1 | 9.8 | 15.7 |
| Central A R | 1.9 | 0.4 | 0.4 | 0.0 | 2.7 | 3.5 |
| Chad | 0.5 | | 0.3 | 0.1 | | 0.4 |
| Comoros | 1.5 | 0.2 | 2.1 | 0.5 | 4.4 | |
| Congo | 3.2 | | 2.5 | 1.0 | | 3.5 |
| Côte d'Ivoire | 0.9 | 0.2 | 1.0 | 0.1 | 2.3 | 3.6 |
| Djibouti | 4.7 | | 0.8 | 0.6 | | 1.5 |
| Equatorial Guinea | | | | | | |
| Eritrea | | | | | | |
| Ethiopia | | | | | | |
| Gabon | 5.6 | 5.4 | 1.1 | | 12.0 | 18.5 |
| Gambia | 0.6 | 0.2 | 0.7 | 0.4 | 1.9 | 3.2 |
| Ghana | 0.5 | 0.2 | 2.1 | 0.5 | 3.2 | 6.0 |
| Guinea | 0.0 | | | | | 0.0 |
| Guinea-Bissau | 1.1 | 0.4 | 1.1 | 0.5 | 3.0 | 5.0 |
| Kenya | 1.7 | 0.4 | 1.7 | 0.3 | 4.1 | 6.5 |
| Lesotho | 2.3 | | 1.2 | | | 1.2 |
| Liberia | | | | | | |
| Madagascar | 1.4 | | | | | |
| Malawi | 1.0 | | 0.9 | 0.3 | | 1.2 |
| Mali | 0.6 | | | | | |
| Mauritania | 0.8 | | 0.9 | 0.3 | 2.0 | 3.2 |
| Mauritius | 8.0 | 1.2 | 2.2 | 2.1 | 13.4 | 18.8 |
| Mozambique | | | | | | |
| Namibia | 10.3 | | 0.2 | 0.1 | | |
| Nigeria | 0.9 | | 0.1 | | | |
| Niger | 0.6 | | 0.3 | 0.1 | | 0.4 |
| Rwanda | | | | | | |
| Sao Tome & Principe | | | | | | |
| Senegal | 0.9 | 0.1 | 0.7 | 0.1 | 1.8 | 2.7 |
| Seychelles | | | | | | |
| Sierra Leone | | | | | | |
| Somalia | | | | | | |
| South Africa | 3.6 | 2.9 | 1.6 | 0.6 | 8.6 | 13.6 |
| Sudan | | | | | | |
| Swaziland | | | | | | |
| Tanzania | 1.0 | 0.2 | 0.8 | 0.2 | 2.2 | 3.4 |
| Togo | 1.0 | 0.3 | 0.8 | 0.2 | 2.4 | 3.9 |
| Uganda | 0.4 | 0.3 | 1.1 | 0.1 | 1.9 | 3.4 |
| Zaire | | | 1.4 | | 3.0 | |
| Zambia | 2.4 | 0.6 | 1.6 | 0.5 | 5.1 | 7.8 |
| Zimbabwe | 1.5 | 0.6 | 2.1 | 0.5 | 4.8 | 8.0 |
| AVERAGE | 2.3 | 0.7 | 1.5 | 0.5 | 5.0 | 5.5 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of total employment)

| AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Angola | 2.8 | 0.5 | 0.9 | 0.7 | 4.8 | 3.4 |
| Benin | | | | | | |
| Botswana | 13.1 | 4.2 | 4.1 | 0.7 | 22.2 | 2.0 |
| Burkina-Faso | 0.7 | | | | | 0.1 |
| Burundi | 0.2 | | 0.5 | 0.1 | | 0.4 |
| Cameroon | 1.9 | 0.8 | 1.7 | 0.2 | 4.6 | 0.4 |
| Cape Verde | 5.1 | 1.3 | 5.2 | 1.5 | 13.1 | |
| Central A R | 2.7 | 0.6 | 0.5 | | 3.8 | 0.2 |
| Chad | | | | | | |
| Comoros | 1.9 | 0.3 | 2.7 | 0.6 | 5.5 | |
| Congo | | | | | | |
| Côte d'Ivoire | 1.0 | 0.3 | 1.1 | 0.1 | 2.5 | 0.2 |
| Djibouti | 6.8 | | 1.2 | 0.9 | | |
| Equatorial Guinea | | | | | | |
| Eritrea | | | | | | |
| Ethiopia | | | | | | |
| Gabon | | | | | | |
| Gambia | | | | | | |
| Ghana | 0.5 | 0.2 | 2.3 | 0.5 | 3.6 | 0.1 |
| Guinea | | | | | | |
| Guinea-Bissau | 1.8 | 0.7 | 1.8 | 0.8 | 5.1 | 3.0 |
| Kenya | 2.7 | 0.6 | 2.7 | 0.4 | 6.3 | 0.3 |
| Lesotho | 3.8 | | 1.9 | | | 0.4 |
| Liberia | | | | | | |
| Madagascar | 1.4 | | | | | 0.3 |
| Malawi | | | | | | |
| Mali | | | | | | |
| Mauritania | 1.0 | | 1.2 | 0.4 | | |
| Mauritius | 8.1 | 1.2 | 2.2 | 2.1 | 13.6 | |
| Mozambique | | | | | | |
| Namibia | 13.1 | | 0.3 | 0.1 | | 1.7 |
| Nigeria | 1.3 | | 0.1 | | | 0.2 |
| Niger | 1.0 | | 0.6 | 0.1 | 1.8 | 0.2 |
| Rwanda | | | | | | |
| Sao Tome & Principe | | | | | | |
| Senegal | 1.0 | 0.1 | 0.7 | 0.2 | 2.0 | 0.4 |
| Seychelles | | | | | | |
| Sierra Leone | | | | | | |
| Somalia | | | | | | |
| South Africa | 5.3 | 4.2 | 2.3 | 0.9 | 12.8 | 1.4 |
| Sudan | | | | | | 1.2 |
| Swaziland | | | | | | |
| Tanzania | 1.2 | 0.2 | 1.1 | 0.2 | 2.7 | |
| Togo | 1.2 | 0.4 | 1.0 | 0.3 | 2.9 | |
| Uganda | | | | | | |
| Zaire | | | | | | |
| Zambia | 3.0 | 0.8 | 2.0 | 0.6 | 6.4 | |
| Zimbabwe | 2.8 | 1.1 | 3.9 | 1.0 | 8.7 | 1.9 |
| AVERAGE | 3.0 | 1.0 | 2.0 | 0.6 | 6.6 | 0.9 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in thousands)

| ASIA | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|------------------|--|------------------------|----------------|--------|-----------------------------|-------------------------|--------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Afghanistan | | | | 5 | | | |
| Bangladesh | 446 | | 211 | 96 | | 261 | 116 |
| Bhutan | | | | | | | |
| Cambodia | 160 | | | | | | 89 |
| China | 1,331 | 18,579 | 11,100 | 2,929 | 33,939 | 106,250 | 3,000 |
| Fiji | 41 | 21 | | | | 7 | |
| India | 3,931 | 3,842 | 2,803 | 720 | 11,295 | 6,222 | 1,145 |
| Indonesia | 1,283 | 496 | 1,905 | 266 | 3,950 | | 275 |
| Kiribati | | | | | 2 | | |
| Korea | 279 | 331 | 280 | 93 | 983 | | |
| Lao PDR | 4 | 20 | 38 | 7 | 69 | 3 | 37 |
| Malaysia | 432 | 201 | 191 | 40 | 869 | | 115 |
| Maldives | 7 | | 3 | 2 | 12 | | |
| Marshall Islands | | | | | | | |
| Micronesia | 1 | 6 | | | 7 | | |
| Mongolia | | | | | | | 21 |
| Myanmar | 568 | 1 | | | 569 | | 286 |
| Nepal | | | | | | | 35 |
| Pakistan | 536 | 788 | 415 | 96 | 1,835 | | 587 |
| Papua New Guinea | | | | | | | 4 |
| Philippines | 675 | 245 | 441 | 74 | 1,435 | 128 | 135 |
| Singapore | 27 | | 25 | 6 | 58 | | 54 |
| Sri Lanka | 500 | 107 | 168 | 26 | 801 | | 125 |
| Solomon Islands | | | | | | | |
| Thailand | 711 | 499 | 343 | 81 | 1,635 | | 259 |
| Tonga | | | | | | | |
| Vanuatu | | | | | | | |
| Vietnam | 264 | 930 | 825 | 318 | 2,337 | 1,781 | 572 |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of population)

| ASIA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Afghanistan | | | | | | |
| Bangladesh | 0.4 | | 0.2 | 0.1 | 0.6 | 0.1 |
| Bhutan | | | | 0.1 | | |
| Cambodia | 1.6 | | | | 1.6 | 0.9 |
| China | 0.1 | 1.6 | 0.9 | 0.2 | 2.8 | 0.3 |
| Fiji | 5.4 | 2.8 | | | | |
| India | 0.4 | 0.4 | 0.3 | 0.1 | 1.2 | 0.1 |
| Indonesia | 0.7 | 0.3 | 1.0 | 0.1 | 2.1 | 0.1 |
| Kiribati | | | | | | |
| Korea | 0.6 | 0.7 | 0.6 | 0.2 | 2.2 | |
| Leo PDR | 0.1 | 0.4 | 0.8 | 0.2 | 1.4 | 0.8 |
| Malaysia | 2.3 | 1.1 | 1.0 | 0.2 | 4.5 | 0.6 |
| Maldives | 3.0 | | 1.2 | 0.7 | 4.9 | |
| Marshall Islands | | | | | | |
| Micronesia | 0.6 | 5.7 | | | 6.3 | |
| Mongolia | | | | | | 0.9 |
| Myanmar | 1.2 | 0.0 | | | 1.2 | 0.6 |
| Nepal | | | | | | |
| Pakistan | 0.4 | 0.6 | 0.3 | 0.1 | 1.5 | 0.5 |
| Papua New Guinea | | | | | | |
| Philippines | 1.0 | 0.4 | 0.7 | 0.1 | 2.1 | 0.2 |
| Singapore | 0.9 | | 0.8 | 0.2 | 2.0 | 1.8 |
| Sri Lanka | 2.8 | 0.8 | 0.9 | 0.1 | 4.5 | 0.7 |
| Solomon Islands | | | | | | |
| Thailand | 1.2 | 0.9 | 0.6 | 0.1 | 2.8 | 0.4 |
| Tonga | | | | | | |
| Vanuatu | | | | | | |
| Vietnam | 0.4 | 1.3 | 1.1 | 0.4 | 3.2 | 0.8 |
| AVERAGE | 0.9 | 0.7 | 0.8 | 0.2 | 2.6 | 0.6 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of labor force)

| ASIA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Afghanistan | | | | 0.1 | | |
| Bangladesh | 0.8 | | 0.4 | | | 0.2 |
| Bhutan | | | | | | |
| Cambodia | 3.2 | | | | | 1.8 |
| China | 0.2 | 2.6 | 1.6 | 0.4 | 4.7 | 0.4 |
| Fiji | 14.6 | 7.6 | | | | |
| India | 1.0 | 1.0 | 0.7 | 0.2 | 2.9 | 0.3 |
| Indonesia | 1.4 | 0.6 | 2.1 | 0.3 | 4.5 | 0.3 |
| Kiribati | | | | | | |
| Korea | 1.3 | 1.6 | 1.3 | 0.4 | 4.6 | |
| Laos | 0.2 | 0.9 | 1.6 | 0.3 | 3.0 | 1.6 |
| Malaysia | 5.6 | 2.6 | 2.5 | 0.5 | 11.4 | 1.5 |
| Maldives | 7.3 | | 3.0 | | 11.9 | |
| Marshall Islands | | | | | | |
| Micronesia | | | | | | |
| Mongolia | | | | | | 1.8 |
| Myanmar | 2.5 | 0.0 | | | 2.5 | 1.2 |
| Nepal | | | | | | |
| Pakistan | 1.1 | 1.6 | 0.9 | 0.2 | 3.8 | 1.2 |
| Papua New Guinea | | | | | | |
| Philippines | 2.5 | 0.9 | 1.6 | 0.3 | 5.3 | 0.5 |
| Singapore | 2.0 | 0.0 | 1.8 | 0.4 | 4.2 | 3.9 |
| Sri Lanka | 6.7 | 1.4 | 2.2 | 0.4 | 10.7 | 1.7 |
| Solomon Islands | | | | | | |
| Thailand | 2.3 | 1.6 | 1.1 | 0.3 | 5.3 | 0.8 |
| Tonga | | | | | | |
| Vanuatu | | | | | | |
| Vietnam | 0.8 | 2.9 | 2.6 | 1.0 | 7.3 | 1.8 |
| AVERAGE | 2.1 | 1.5 | 1.7 | 0.4 | 5.6 | 1.3 |

Column averages encompass only those countries for which the information is complete

TABLE A-2
PUBLIC SECTOR EMPLOYMENT

(in percent of total employment)

| ASIA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|------------------|--|------------------------|----------------|------------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Afghanistan | | | | | | |
| Bangladesh | 1.0 | | 0.5 | 0.2 | | 0.3 |
| Bhutan | | | | | | |
| Cambodia | | | | | | |
| China | 0.2 | 2.7 | 1.6 | 0.4 | 4.9 | 0.4 |
| Fiji | 15.4 | 8.0 | | | 23.4 | |
| India | 1.1 | 1.1 | 0.8 | 0.2 | 3.2 | 0.3 |
| Indonesia | 1.5 | 0.6 | 2.2 | 0.3 | 4.6 | 0.3 |
| Kiribati | | | | | | |
| Korea | 1.3 | 1.6 | 1.3 | 0.4 | 4.7 | |
| Laos | 0.2 | 1.1 | 2.1 | 0.4 | 3.8 | 2.0 |
| Malaysia | 5.8 | 2.7 | 2.6 | 0.5 | 11.7 | 1.5 |
| Maldives | | | | | | |
| Marshall Islands | | | | | | |
| Micronesia | | | | | | |
| Mongolia | | | | | | |
| Myanmar | 2.5 | 0.0 | | | | 1.2 |
| Nepal | | | | | | |
| Pakistan | 1.2 | 1.8 | 0.9 | 0.2 | 4.2 | 1.3 |
| Papua New Guinea | | | | | | |
| Philippines | 2.7 | 1.0 | 1.8 | 0.3 | 5.8 | 0.5 |
| Singapore | 2.0 | 0.0 | 1.8 | 0.4 | 4.3 | 4.0 |
| Sri Lanka | 9.6 | 2.0 | 3.2 | 0.5 | 15.4 | 2.4 |
| Solomon Islands | | | | | | |
| Thailand | 2.4 | 1.7 | 1.1 | 0.3 | 5.4 | 0.9 |
| Tonga | | | | | | |
| Vanuatu | | | | | | |
| Vietnam | 0.9 | 3.2 | 2.8 | 1.1 | 7.9 | 1.9 |
| AVERAGE | 2.4 | 1.6 | 1.9 | 0.4 | 6.3 | 1.1 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
 (in thousands)

| EASTERN EUROPE AND FORMER USSR | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|--|--|---------------------------|----------------|--------|--------------------------------|----------------------------|-----------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| <i>Central and Eastern Europe</i> | | | | | | | |
| Albania | 61 | 8 | 52 | 27 | 148 | 73 | |
| Bosnia | | | | | | 92 | |
| Bulgaria | 79 | 25 | 259 | 201 | 564 | 1,496 | |
| Croatia | 73 | 26 | 66 | 70 | 235 | 333 | |
| Czech Republic | 64 | | 173 | 121 | | 86 | |
| Hungary | 147 | 133 | 300 | 246 | 825 | 71 | |
| Macedonia | 19 | 2 | 18 | 26 | 66 | 396 | |
| Poland | 89 | 135 | 601 | 770 | 1,595 | 3,987 | |
| Romania | 46 | | 324 | 166 | | 217 | |
| Slovakia | 67 | 44 | 172 | 127 | 410 | 47 | |
| Slovenia | 28 | | 49 | 53 | | 8 | |
| Serbia | | | | | | 127 | |
| Turkey | 616 | 249 | 550 | 131 | 1,546 | 508 | |
| <i>Former Soviet Union</i> | | | | | | | |
| Armenia | 30 | 139 | 150 | 73 | 392 | 91 | |
| Azerbaijan | 62 | | 385 | 170 | | 87 | |
| Belarus | 60 | 17 | 423 | 285 | 785 | 97 | |
| Estonia | 29 | 15 | 43 | 29 | | 4 | |
| Georgia | 141 | 34 | 245 | 114 | 533 | 427 | |
| Kazakhstan | 196 | 68 | 299 | 506 | 1,069 | 63 | |
| Kyrgyz R | 267 | | 162 | 105 | | 7 | |
| Latvia | 47 | | 92 | 74 | | 3 | |
| Lithuania | 37 | 22 | 141 | 104 | 304 | 9 | |
| Moldova | 8 | 9 | 185 | 108 | 310 | 12 | |
| Russia | 536 | 271 | 7,500 | 4,135 | 12,442 | 1,300 | |
| Tajikistan | 30 | | 219 | 110 | | 3 | |
| Turkmenistan | 74 | | 172 | 82 | | 592 | |
| Ukraine | 187 | 169 | 2,277 | 1,508 | 4,141 | 453 | |
| Uzbekistan | 84 | | 1,038 | 483 | | 25 | |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
 (in percent of population)

| EASTERN EUROPE AND FORMER USSR | PUBLIC SECTOR EMPLOYMENT | | | | | |
|--------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| <i>Central and Eastern Europe</i> | | | | | | |
| Albania | 1.9 | 0.2 | 1.6 | 0.8 | 4.6 | 2.3 |
| Bosnia | | | | | | 2.4 |
| Bulgaria | 0.9 | 0.3 | 2.9 | 2.3 | 6.4 | 1.1 |
| Croatia | 1.6 | 0.6 | 1.5 | 1.5 | 5.2 | 2.3 |
| Czech Republic | 0.6 | | 1.7 | 1.2 | | 0.8 |
| Hungary | 1.4 | 1.3 | 2.9 | 2.4 | 8.1 | 0.7 |
| Macedonia | 0.9 | 0.1 | 0.9 | 1.3 | 3.2 | 0.5 |
| Poland | 0.2 | 0.4 | 1.6 | 2.0 | 4.2 | 0.7 |
| Romania | 0.2 | | 1.4 | 0.7 | | 1.0 |
| Slovakia | 1.3 | 0.8 | 3.2 | 2.4 | 7.7 | 0.9 |
| Slovenia | 1.4 | | 2.5 | 2.7 | | 0.4 |
| Serbia | | | | | | 1.2 |
| Turkey | 1.0 | 0.4 | 0.9 | 0.2 | 2.6 | 0.9 |
| <i>Former Soviet Union</i> | | | | | | |
| Armenia | 0.8 | 3.7 | 4.0 | 2.0 | 10.5 | 2.4 |
| Azerbaijan | 0.8 | | 5.2 | 2.3 | | 1.2 |
| Belarus | 0.6 | 0.4 | 4.2 | 2.8 | 7.9 | 1.0 |
| Estonia | 1.9 | 1.0 | 2.9 | 2.0 | 7.8 | 0.2 |
| Georgia | 2.6 | 1.3 | 4.5 | 2.1 | 10.5 | 0.2 |
| Kazakhstan | 1.2 | 0.9 | 1.8 | 3.0 | 6.8 | 2.5 |
| Kyrgyz R | 5.8 | | 3.5 | 2.3 | | 0.2 |
| Latvia | 1.9 | | 3.6 | 2.9 | 8.4 | |
| Lithuania | 1.0 | 0.6 | 3.8 | 2.8 | 8.2 | 0.1 |
| Moldova | 0.2 | 0.4 | 4.2 | 2.4 | 7.3 | 0.3 |
| Russia | 0.4 | 0.4 | 5.0 | 2.8 | 8.6 | 0.9 |
| Tajikistan | 0.5 | | 3.8 | 1.9 | | 0.0 |
| Turkmenistan | 1.9 | | 4.4 | 2.1 | 8.4 | 0.3 |
| Ukraine | 0.4 | 0.7 | 4.4 | 2.9 | 8.4 | 0.9 |
| Uzbekistan | 0.4 | | | 2.2 | | 0.1 |
| AVERAGE | 1.1 | 0.8 | 3.0 | 2.1 | 6.9 | 1.1 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
 (in percent of labor force)

| EASTERN EUROPE AND FORMER USSR | PUBLIC SECTOR EMPLOYMENT | | | | | |
|--------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| <i>Central and Eastern Europe</i> | | | | | | |
| Albania | 3.6 | 0.5 | 3.1 | 1.6 | 8.7 | 4.3 |
| Bosnia | | | | | | |
| Bulgaria | 1.7 | 0.6 | 5.8 | 4.5 | 12.5 | 2.2 |
| Croatia | 3.9 | 1.4 | 3.5 | 3.7 | 12.4 | 5.5 |
| Czech Republic | 1.3 | | 3.4 | 2.4 | | 1.7 |
| Hungary | 2.7 | 2.5 | 5.6 | 4.6 | 15.4 | 1.3 |
| Macedonia | 2.0 | 0.2 | 1.9 | 2.8 | 6.9 | 1.1 |
| Poland | 0.4 | 0.7 | 3.0 | 3.8 | 7.9 | 1.4 |
| Romania | 0.4 | | 2.7 | 1.4 | | 1.8 |
| Slovakia | 2.9 | 1.9 | 7.3 | 5.4 | 17.4 | 2.0 |
| Slovenia | 3.7 | | 6.6 | 7.1 | | 1.1 |
| Serbia | | | | | | 1.9 |
| Turkey | 2.4 | 1.0 | 2.2 | 0.5 | 6.1 | 2.0 |
| <i>Former Soviet Union</i> | | | | | | |
| Armenia | 1.8 | 8.5 | 9.2 | 4.5 | 24.0 | 5.6 |
| Azerbaijan | 2.2 | | 13.4 | 5.9 | | 3.0 |
| Belarus | 1.2 | 0.4 | 8.8 | 5.9 | 16.3 | 2.0 |
| Estonia | 4.0 | 2.1 | 6.0 | 4.1 | 16.2 | 0.5 |
| Georgia | 5.6 | 1.3 | 9.7 | 4.5 | 21.1 | 0.4 |
| Kazakhstan | 2.7 | 0.9 | 4.0 | 6.8 | | 0.9 |
| Kyrgyz R | 14.5 | | 8.8 | 5.7 | | 0.4 |
| Latvia | 3.4 | | 6.6 | 5.3 | | 0.2 |
| Lithuania | 2.0 | 1.2 | 7.7 | 5.6 | 16.5 | 0.3 |
| Moldova | 0.4 | 0.4 | 9.0 | 5.3 | 15.1 | 0.6 |
| Russia | 0.7 | 0.4 | 10.3 | 5.7 | 17.1 | 1.8 |
| Tajikistan | 1.5 | | 11.5 | 5.8 | | 0.1 |
| Turkmenistan | 4.7 | | 10.9 | 5.2 | | 0.7 |
| Ukraine | 0.8 | 0.7 | 9.5 | 6.3 | 17.2 | 1.9 |
| Uzbekistan | 1.0 | | | 5.8 | | 0.3 |
| AVERAGE | 2.3 | 1.5 | 6.1 | 4.4 | 14.3 | 2.2 |

Column averages encompass only those countries for which the information is complete

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of total employment)

| EASTERN EUROPE AND FORMER USSR | PUBLIC SECTOR EMPLOYMENT | | | | | |
|--------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| <i>Central and Eastern Europe</i> | | | | | | |
| Albania | 4.4 | 0.6 | 3.7 | 1.9 | 10.6 | 5.2 |
| Bosnia | | | | | | |
| Bulgaria | 2.1 | 0.7 | 6.9 | 5.3 | 14.9 | 2.6 |
| Croatia | 4.4 | 1.6 | 4.0 | 4.2 | 14.2 | 6.4 |
| Czech Republic | 1.3 | | 3.6 | 2.5 | | 1.8 |
| Hungary | 3.1 | 2.8 | 6.3 | 5.1 | 17.2 | 1.5 |
| Macedonia | 3.8 | 0.4 | 3.6 | 5.2 | 13.0 | 2.0 |
| Poland | 0.5 | 0.8 | 3.5 | 4.5 | 9.4 | 1.6 |
| Romania | 0.4 | | 2.9 | 1.5 | | 2.0 |
| Slovakia | 3.3 | 2.2 | 8.6 | 6.3 | 20.5 | 2.3 |
| Slovenia | 4.3 | | 7.7 | 8.3 | | 1.3 |
| Serbia | | | | | | 2.4 |
| Turkey | 2.8 | 1.1 | 2.5 | 0.6 | 7.0 | 2.3 |
| <i>Former Soviet Union</i> | | | | | | |
| Armenia | 1.9 | 9.0 | 9.7 | 4.7 | 25.3 | 5.9 |
| Azerbaijan | 2.5 | | 15.5 | 6.9 | | 3.5 |
| Belarus | 1.3 | 0.4 | 8.9 | 6.0 | 16.5 | 2.0 |
| Estonia | 4.3 | 2.3 | 6.5 | 4.4 | 17.5 | 0.5 |
| Georgia | 5.9 | 1.4 | 10.2 | 4.7 | 22.2 | |
| Kazakhstan | 2.7 | 0.9 | 4.1 | 6.9 | 14.6 | 0.9 |
| Kyrgyz R | 16.5 | | 10.0 | 6.5 | | 0.4 |
| Latvia | 4.0 | | 7.7 | 6.2 | | 0.2 |
| Lithuania | 2.1 | 1.3 | 8.2 | 6.0 | 17.6 | 0.3 |
| Moldova | 0.4 | 0.4 | 9.1 | 5.3 | 15.2 | 0.6 |
| Russia | 0.8 | 0.4 | 11.2 | 6.2 | 18.6 | 1.9 |
| Tajikistan | 1.6 | | 11.7 | 5.9 | | 0.1 |
| Turkmenistan | 4.8 | | 11.1 | 5.3 | | 0.7 |
| Ukraine | 0.8 | 0.7 | 9.5 | 6.3 | 17.3 | 1.9 |
| Uzbekistan | 1.0 | | | 6.0 | | 0.3 |
| AVERAGE | 2.6 | 1.6 | 6.8 | 4.9 | 16.0 | 2.5 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in thousands)

| LATIN AMERICA AND THE CARIBBEAN | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|---------------------------------------|--|---------------------------|----------------|--------|--------------------------------|----------------------------|-----------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Antigua & Barbuda | 8 | 0.1 | | | 9 | 2 | |
| Argentina | 301 | 969 | 278 | 114 | 1,662 | 138 | 67 |
| Bahamas | 9 | | 5 | 4 | | | |
| Barbados | 10 | | 3 | 4 | | | |
| Belize | | | | | 9 | | 1 |
| Bermuda | | | | | | | |
| Bolivia | 86 | 11 | 80 | 22 | 199 | 27 | 34 |
| Brazil | | | | | | | 295 |
| Chile | 46 | 24 | 9 | 52 | 130 | | 99 |
| Colombia | 44 | 194 | 305 | 70 | 612 | | 146 |
| Costa Rica | | | | | | | |
| Dominican Republic | | | | | 210 | 148 | 25 |
| Ecuador | 184 | 44 | 111 | 30 | 370 | | 57 |
| El Salvador | 40 | | 33 | 21 | | | 31 |
| Guatemala | | | | | | | 44 |
| Guyana | 13 | 3 | 1 | 2 | 19 | 33 | 2 |
| Honduras | 56 | 7 | 35 | 5 | 122 | | 19 |
| Jamaica | | | | | | | 3 |
| Mexico | | | | | | | |
| Nicaragua | 20 | | 28 | 21 | | | 12 |
| Paraguay | 146 | | | | | | 20 |
| Peru | 352 | | | | | | 115 |
| Suriname | | | | | | | 2 |
| Trinidad and Tobago | | | | | 133 | | 2 |
| Uruguay | 75 | 38 | 68 | 25 | 206 | 44 | 26 |
| Venezuela | 246 | 109 | 182 | 29 | 565 | | 79 |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of population)

| LATIN AMERICA AND THE CARIBBEAN | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Antigua & Barbuda | 13.1 | 0.2 | | | | |
| Argentina | 0.9 | 2.8 | 0.8 | 0.3 | 4.9 | 0.2 |
| Bahamas | 3.2 | | 1.7 | 1.5 | 6.5 | |
| Barbados | 4.0 | | 1.1 | 1.6 | 6.8 | |
| Belize | | | | | 4.2 | 0.5 |
| Bermuda | | | | | | |
| Bolivia | 1.2 | 0.2 | 1.1 | 0.3 | 2.7 | 0.5 |
| Brazil | | | | | | 0.2 |
| Chile | 0.3 | 0.2 | 0.1 | 0.4 | 0.9 | 0.7 |
| Colombia | 0.1 | 0.5 | 0.8 | 0.2 | 1.7 | 0.4 |
| Costa Rica | | | | | | - |
| Dominican Republic | | | | | | 0.3 |
| Ecuador | 1.7 | 0.4 | 1.0 | 0.3 | 3.4 | 0.5 |
| El Salvador | 0.7 | | 0.6 | 0.4 | 1.7 | 0.5 |
| Guatemala | | | | | | 0.4 |
| Guyana | 1.6 | 0.4 | 0.1 | 0.2 | 2.3 | 0.2 |
| Honduras | 1.0 | 0.1 | 0.6 | 0.1 | 1.8 | 0.3 |
| Jamaica | | | | | | 0.1 |
| Mexico | | | | | | |
| Nicaragua | 0.5 | | 0.7 | 0.5 | | 0.3 |
| Paraguay | 3.0 | | | | | 0.4 |
| Peru | 1.5 | | | | | 0.5 |
| Suriname | | | | | | 0.4 |
| Trinidad and Tobago | | | | | | 0.2 |
| Uruguay | 2.4 | 1.2 | 2.1 | 0.8 | 6.5 | 0.8 |
| Venezuela | 1.2 | 0.5 | 0.9 | 0.1 | 2.7 | 0.4 |
| AVERAGE | 1.2 | 0.7 | 0.8 | 0.3 | 3.0 | 0.4 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of labor force)

| LATIN AMERICA AND THE CARIBBEAN | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Antigua & Barbuda | 29.4 | 0.3 | | | | |
| Argentina | 2.3 | 7.3 | 2.1 | 0.9 | 12.6 | 0.5 |
| Bahamas | 6.3 | 0 | 3.4 | 3.0 | 12.6 | |
| Barbados | 7.8 | 0 | 2.2 | 3.1 | 13.1 | |
| Belize | | | | | | 1.5 |
| Bermuda | | | | | | 1.2 |
| Bolivia | 3.0 | 0.4 | 2.8 | 0.7 | 6.8 | 0.4 |
| Brazil | | | | | | 1.8 |
| Chile | 0.8 | 0.4 | 0.2 | 0.9 | 2.4 | 1.0 |
| Colombia | 0.3 | 1.3 | 2.1 | 0.5 | 4.2 | |
| Costa Rica | | | | | | 0.8 |
| Dominican Republic | 0.0 | 0.0 | | | | 1.6 |
| Ecuador | 5.1 | 1.2 | 3.1 | 0.8 | 10.3 | 1.4 |
| El Salvador | 1.8 | | 1.5 | 1.0 | 4.4 | 1.2 |
| Guatemala | | | | | | 0.5 |
| Guyana | 3.8 | 1.0 | 0.1 | 0.6 | 5.4 | 1.0 |
| Honduras | 2.9 | 0.4 | 1.8 | 0.3 | 5.3 | 0.3 |
| Jamaica | | | | | | |
| Mexico | | | | | | 0.8 |
| Nicaragua | 1.3 | | | 1.4 | | 1.1 |
| Paraguay | 8.0 | | | | | 1.4 |
| Peru | 4.2 | | | | | 1.2 |
| Suriname | | | | | | 0.4 |
| Trinidad and Tobago | | | | | | 1.8 |
| Uruguay | 5.3 | 2.7 | 4.8 | 1.8 | 14.6 | 1.0 |
| Venezuela | 3.0 | 1.3 | 2.2 | 0.3 | 6.9 | |
| AVERAGE | 2.9 | 1.8 | 2.1 | 0.8 | 7.6 | 1.0 |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of total employment)

| LATIN AMERICA AND THE CARIBBEAN | PUBLIC SECTOR EMPLOYMENT | | | | | |
|---------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Antigua & Barbuda | | | | | | - |
| Argentina | 2.6 | 8.3 | 2.4 | 1.0 | 14.3 | 0.6 |
| Bahamas | 7.3 | 0.0 | 3.9 | 3.4 | 14.6 | 0.0 |
| Barbados | 9.9 | | 2.8 | 3.9 | | 0.0 |
| Belize | | | | | | 1.7 |
| Bermuda | | | | | | |
| Bolivia | 3.2 | 0.4 | 2.9 | 0.8 | 7.3 | 1.2 |
| Brazil | | | | | | 0.4 |
| Chile | 0.9 | 0.5 | 0.2 | 1.0 | 2.5 | 1.9 |
| Colombia | 0.3 | 1.5 | 2.3 | 0.5 | 4.6 | 1.1 |
| Costa Rica | | | | | | |
| Dominican Republic | | | | | | |
| Ecuador | 5.5 | 1.3 | 3.3 | 0.9 | 11.1 | 1.7 |
| El Salvador | 1.9 | | 1.6 | 1.0 | 4.5 | 1.5 |
| Guatemala | | | | | | 1.2 |
| Guyana | 3.9 | 1.0 | 0.2 | 0.6 | 5.6 | 0.5 |
| Honduras | 3.2 | 0.4 | 2.0 | 0.3 | 5.9 | 1.1 |
| Jamaica | | | | | | 0.3 |
| Mexico | | | | | | |
| Nicaragua | 1.6 | | | 1.7 | 3.2 | 1.0 |
| Paraguay | 9.1 | | | | 9.1 | 1.3 |
| Peru | 4.9 | | | | 4.9 | 1.6 |
| Suriname | | | | | | 1.4 |
| Trinidad and Tobago | | | | | | 0.5 |
| Uruguay | 5.9 | 2.9 | 5.3 | 2.0 | 16.0 | 2.0 |
| Venezuela | 3.3 | 1.5 | 2.4 | 0.4 | 7.6 | 1.1 |
| AVERAGE | 3.6 | 1.8 | 2.5 | 1.1 | 8.9 | 1.0 |

Column averages encompass only those countries for which the information is complete.

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in thousands)

| MIDDLE EAST AND NORTH AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|------------------------------------|--|---------------------------|----------------|--------|--------------------------------|----------------------------|-----------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Algeria | 394 | 222 | 342 | 171 | 1,129 | 130 | 122 |
| Bahrain | 14 | 0 | 9 | 6 | 29 | | |
| Egypt | 1,026 | 1,582 | 543 | 422 | 3,573 | 1,300 | 436 |
| Jordan | 32 | 32 | 62 | 19 | 145 | | 99 |
| Lebanon | 7 | 10 | 32 | 3 | 52 | 8 | 44 |
| Morocco | 205 | 120 | 233 | 39 | 597 | | 196 |
| Syria | 137 | 40 | 230 | 34 | 441 | | |
| Tunisia | 124 | 22 | 129 | 44 | 319 | 181 | 36 |
| WB-Gaza | 37 | | 17 | 5 | 59 | | 0 |
| Yemen | 304 | 91 | 40 | 28 | 463 | | 40 |

(in percent of population)

| MIDDLE EAST AND NORTH AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|--|
| | General Civilian Government Employment | | | | | Armed Forces | |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Algeria | 1.5 | 0.8 | 1.3 | 0.6 | 4.2 | 0.5 | |
| Bahrain | 2.6 | | 1.8 | 1.1 | 5.5 | | |
| Egypt | 1.8 | 2.7 | 0.9 | 0.7 | 6.2 | 0.8 | |
| Jordan | 0.8 | 0.8 | 1.5 | 0.5 | 3.5 | 2.4 | |
| Lebanon | 0.2 | 0.3 | 0.8 | 0.1 | 1.4 | 1.1 | |
| Morocco | 0.8 | 0.5 | 0.9 | 0.1 | 2.3 | 0.8 | |
| Syria | 1.0 | 0.3 | 1.7 | 0.3 | 3.2 | | |
| Tunisia | 1.4 | 0.3 | 1.5 | 0.5 | 3.7 | 0.4 | |
| WB-Gaza | 1.5 | | 0.7 | 0.2 | 2.4 | 0.0 | |
| Yemen | 2.3 | 0.7 | 0.3 | 0.2 | 3.5 | 0.3 | |
| AVERAGE | 1.4 | 0.9 | 1.2 | 0.4 | 3.9 | 0.7 | |

**TABLE A-2
PUBLIC SECTOR EMPLOYMENT**

(in percent of labor force)

| MIDDLE EAST AND NORTH AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Algeria | 6.1 | 3.4 | 5.3 | 2.6 | 17.4 | 1.9 |
| Bahrain | 5.0 | 0.0 | 3.4 | 2.2 | 10.6 | |
| Egypt | 6.4 | 9.9 | 3.4 | 2.6 | 22.3 | 2.7 |
| Jordan | 2.8 | 2.8 | 5.5 | 1.7 | 12.9 | 8.8 |
| Lebanon | 0.7 | 1.0 | 3.2 | 0.3 | 5.3 | 4.5 |
| Morocco | 2.4 | 1.4 | 2.7 | 0.5 | 7.0 | 2.3 |
| Syria | 3.9 | 1.1 | 6.6 | 1.0 | 12.6 | |
| Tunisia | 4.4 | 0.8 | 4.6 | 1.6 | 11.3 | 1.3 |
| WB-Gaza | 10.1 | | 4.6 | 1.2 | 16.0 | 0.0 |
| Yemen | 10.5 | 3.2 | 1.4 | 1.0 | 16.0 | 1.4 |
| AVERAGE | 5.2 | 3.2 | 4.2 | 1.6 | 14.2 | 3.0 |

(in percent of total employment)

| MIDDLE EAST AND NORTH AFRICA | PUBLIC SECTOR EMPLOYMENT | | | | | |
|------------------------------------|--|---------------------------|----------------|------------|--------------------------------|-----------------|
| | General Civilian Government Employment | | | | | Armed Forces |
| | Government Administration | | Social Sectors | | Total | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | |
| Algeria | 8.7 | 4.9 | 7.5 | 3.8 | 24.8 | 2.7 |
| Bahrain | 5.9 | 0.0 | 4.0 | 2.6 | 12.5 | |
| Egypt | 7.2 | 11.1 | 3.8 | 3.0 | 25.0 | 3.1 |
| Jordan | 3.3 | 3.3 | 6.5 | 2.0 | 15.2 | 10.3 |
| Lebanon | 1.1 | 1.6 | 5.0 | 0.5 | 8.1 | 6.9 |
| Morocco | 2.9 | 1.7 | 3.2 | 0.5 | 8.3 | 2.7 |
| Syria | 4.2 | 1.2 | 7.1 | 1.1 | 13.7 | |
| Tunisia | 5.2 | 0.9 | 5.4 | 1.9 | 13.5 | 1.5 |
| WB-Gaza | 16.6 | | 7.6 | 2.0 | | 0.0 |
| Yemen | 14.5 | 4.4 | 1.9 | 1.3 | 22.1 | 1.9 |
| AVERAGE | 6.6 | 3.9 | 5.1 | 1.9 | 17.5 | 3.2 |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in thousands)

| OECD | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|----------------|--|------------------------|----------------|--------|-----------------------------|-------------------------|--------------|
| | General Civilian Government Employment | | | | | State-owned Enterprises | Armed Forces |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Australia | 234 | 404 | 399 | 299 | 1,336 | 864 | 56 |
| Austria | 268 | 198 | 41 | 100 | 607 | | 0 |
| Belgium | 174 | 231 | 280 | 79 | 764 | 120 | 47 |
| Canada | 287 | 504 | 360 | | 1,151 | 303 | 71 |
| Denmark | 143 | 268 | 142 | 103 | 656 | 56 | 33 |
| Finland | 110 | 389 | 36 | 90 | 625 | 65 | 31 |
| France | 1,561 | 1,237 | 1,075 | 135 | 4,009 | 757 | 409 |
| Germany | 314 | 2,098 | 1,098 | 110 | 3,620 | 1,056 | 340 |
| Greece | 111 | 40 | 121 | 6 | 278 | 138 | 171 |
| Ireland | 41 | 27 | 52 | 59 | 178 | 70 | 15 |
| Italy | 770 | 736 | 970 | 620 | 3,096 | 558 | 329 |
| Japan | 894 | 1,548 | 1,298 | 278 | 4,017 | 119 | 240 |
| Netherlands | 603 | 198 | | | 800 | | |
| New Zealand | 43 | 41 | 217 | | 301 | | |
| Norway | 114 | 70 | 135 | 244 | 564 | | |
| Portugal | 171 | 80 | 190 | 44 | 485 | | 54 |
| Spain | 509 | 774 | 229 | | | 412 | 206 |
| Sweden | 355 | 461 | 286 | 410 | 1,512 | 144 | 64 |
| Switzerland | 149 | 177 | 121 | 92 | 539 | | 3 |
| United Kingdom | 747 | 1,300 | 990 | 1,010 | 4,047 | 759 | 303 |
| US | 3,105 | 8,193 | 5,805 | 1,268 | 18,370 | | 237 |

(in percent of population)

| OECD | PUBLIC SECTOR EMPLOYMENT | | | | | | |
|----------------|--|------------------------|----------------|------------|-----------------------------|--------------|--|
| | General Civilian Government Employment | | | | | Armed Forces | |
| | Government Administration | | Social Sectors | | Total | | |
| | Central Government | Non Central Government | Education | Health | General Civilian Government | | |
| Australia | 1.3 | 2.3 | 2.3 | 1.7 | 7.6 | 0.3 | |
| Austria | 3.4 | 2.5 | 0.5 | 1.3 | 7.6 | | |
| Belgium | 1.7 | 2.3 | 2.8 | 0.8 | 7.6 | 0.5 | |
| Canada | 1.0 | 1.8 | 1.3 | | 4.0 | 0.2 | |
| Denmark | 2.8 | 5.2 | 2.8 | 2.0 | 12.7 | 0.6 | |
| Finland | 2.2 | 7.7 | 0.7 | 1.8 | 12.4 | 0.6 | |
| France | 2.7 | 2.2 | 1.9 | 0.2 | 7.0 | 0.7 | |
| Germany | 0.4 | 2.6 | 1.4 | 0.1 | 4.5 | 0.4 | |
| Greece | 1.1 | 0.4 | 1.2 | 0.1 | 2.7 | 1.7 | |
| Ireland | 1.2 | 0.8 | 1.5 | 1.7 | 5.0 | 0.4 | |
| Italy | 1.3 | 1.3 | 1.7 | 1.1 | 5.4 | 0.6 | |
| Japan | 0.7 | 1.2 | 1.0 | 0.2 | 3.2 | 0.2 | |
| Netherlands | 3.9 | 1.3 | | | 5.2 | | |
| New Zealand | 1.2 | 1.2 | 6.2 | | 8.6 | | |
| Norway | 2.6 | 1.6 | 3.1 | 5.6 | 13.0 | | |
| Portugal | 1.8 | 0.8 | 2.0 | 0.5 | 5.1 | 0.6 | |
| Spain | 1.3 | 2.0 | 0.6 | | | 0.5 | |
| Sweden | 4.1 | 5.3 | 3.3 | 4.7 | 17.4 | 0.7 | |
| Switzerland | 2.1 | 2.5 | 1.7 | 1.3 | 7.6 | | |
| United Kingdom | 1.3 | 2.2 | 1.7 | 1.7 | 7.0 | 0.5 | |
| US | 1.2 | 3.2 | 2.2 | 0.5 | 7.1 | 0.1 | |
| AVERAGE | 1.8 | 2.5 | 2.1 | 1.4 | 7.7 | 0.5 | |

TABLE A-2
PUBLIC SECTOR EMPLOYMENT
(in percent of labor force)

| OECD | PUBLIC SECTOR EMPLOYMENT | | | | | | Armed Forces |
|----------------|--|------------------------|----------------|--------|------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | General Civilian Government | |
| | Government Administration | | Social Sectors | | | | |
| | Central Government | Non Central Government | Education | Health | | | |
| Australia | 2.8 | 4.9 | 4.8 | 3.6 | 16.2 | 0.7 | |
| Austria | 7.7 | 5.7 | 1.2 | 2.9 | 17.5 | | |
| Belgium | 4.2 | 5.6 | 6.7 | 1.9 | 18.4 | 1.1 | |
| Canada | 2.1 | 3.7 | 2.6 | | 8.4 | 0.5 | |
| Denmark | 5.0 | 9.3 | 4.9 | 3.6 | 22.8 | 1.2 | |
| Finland | 4.3 | 15.1 | 1.4 | 3.5 | 24.3 | 1.2 | |
| France | 6.1 | 4.8 | 4.2 | 0.5 | 15.6 | 1.6 | |
| Germany | 0.7 | 5.0 | 2.6 | 0.3 | 8.6 | 0.8 | |
| Greece | 2.9 | 1.0 | 3.1 | 0.2 | 7.2 | 4.4 | |
| Ireland | 2.6 | 1.7 | 3.3 | 3.8 | 11.5 | 0.9 | |
| Italy | 3.3 | 3.1 | 4.1 | 2.6 | 13.2 | 1.4 | |
| Japan | 1.4 | 2.4 | 2.0 | 0.4 | 6.3 | 0.4 | |
| Netherlands | 8.5 | 2.8 | | | 11.3 | | |
| New Zealand | 2.6 | 2.5 | 13.4 | | 18.5 | | |
| Norway | 5.2 | 3.2 | 6.1 | 11.1 | 25.7 | | |
| Portugal | 3.5 | 1.7 | 3.9 | 0.9 | 10.0 | 1.1 | |
| Spain | 3.4 | 5.2 | 1.5 | | 10.2 | 1.4 | |
| Sweden | 8.1 | 10.6 | 6.6 | 9.4 | 34.7 | 1.5 | |
| Switzerland | 4.6 | 5.5 | 3.8 | 2.9 | 16.9 | 0.1 | |
| United Kingdom | 2.7 | 4.7 | 3.6 | 3.6 | 14.5 | 1.1 | |
| US | 2.5 | 6.6 | 4.7 | 1.0 | 14.7 | 0.2 | |
| AVERAGE | 3.9 | 5.3 | 3.7 | 2.8 | 15.6 | 1.1 | |

(in percent of total employment)

| OECD | PUBLIC SECTOR EMPLOYMENT | | | | | | Armed Forces |
|----------------|--|------------------------|----------------|--------|------|-----------------------------|--------------|
| | General Civilian Government Employment | | | | | General Civilian Government | |
| | Government Administration | | Social Sectors | | | | |
| | Central Government | Non Central Government | Education | Health | | | |
| Australia | 3.1 | 5.4 | 5.3 | 4.0 | 17.7 | 0.7 | |
| Austria | 8.1 | 6.0 | 1.2 | 3.0 | 18.3 | | |
| Belgium | 4.7 | 6.2 | 7.6 | 2.1 | 20.6 | 1.3 | |
| Canada | 2.3 | 4.1 | 2.9 | | 9.3 | 0.6 | |
| Denmark | 5.5 | 10.3 | 5.5 | 3.9 | 25.2 | 1.3 | |
| Finland | 5.5 | 19.4 | 1.8 | 4.5 | 31.2 | 1.6 | |
| France | 6.9 | 5.5 | 4.8 | 0.6 | 17.8 | 1.8 | |
| Germany | 0.8 | 5.5 | 2.9 | 0.3 | 9.5 | 0.9 | |
| Greece | 3.2 | 1.1 | 3.5 | 0.2 | 8.0 | 4.9 | |
| Ireland | 3.1 | 2.0 | 4.0 | 4.5 | 13.6 | 1.1 | |
| Italy | 3.7 | 3.6 | 4.7 | 3.0 | 15.0 | 1.6 | |
| Japan | 1.5 | 2.5 | 2.1 | 0.5 | 6.5 | 0.4 | |
| Netherlands | 9.2 | 3.0 | | | 12.2 | | |
| New Zealand | 2.9 | 2.7 | 14.5 | | 20.0 | | |
| Norway | 5.5 | 2.7 | 6.5 | 11.8 | 26.5 | | |
| Portugal | 3.7 | 3.4 | 4.1 | 0.9 | 12.1 | 1.2 | |
| Spain | 4.5 | 1.7 | 2.0 | | 8.3 | 1.8 | |
| Sweden | 8.9 | 6.9 | 7.2 | 10.3 | 33.3 | 1.6 | |
| Switzerland | 4.9 | 11.6 | 4.0 | 3.0 | 23.5 | 0.1 | |
| United Kingdom | 3.0 | 5.8 | 3.9 | 4.0 | 16.7 | 1.2 | |
| US | 2.6 | 5.2 | 4.9 | 1.1 | 13.8 | 0.2 | |
| AVERAGE | 4.3 | 5.7 | 4.1 | 3.0 | 17.2 | 1.2 | |

Column averages encompass only those countries for which the information is complete

TABLE A-3
GOVERNMENT WAGES

(in local currency and percent)

| AFRICA | GDP per Capita (local currency) | GNP per Capita (US Dollars) | Average Government wages | Wages in Manufacturing | Government wages to Manufacturing wages | Government wages as percent of GDP | Average Government wages to per capita GDP |
|----------------|------------------------------------|--------------------------------|--------------------------|------------------------|---|------------------------------------|--|
| Angola | 70,006,423 | | 89,603,960 | | | 4.7 | 1.3 |
| Botswana | 5,429 | 2,790 | 18,771 | 6,612 | 2.8 | 10.9 | 3.5 |
| Burkina Faso | 101,819 | 150 | 1,200,000 | | | 4.4 | 11.8 |
| Burundi | 48,180 | 300 | 371,967 | | | 3.9 | 7.7 |
| Cameroon | 234,843 | 680 | 864,912 | | 2.8 | 3.9 | 3.7 |
| C.A.R. | 110,678 | 370 | 576,744 | | | 4.4 | 5.2 |
| Côte d'Ivoire | 317,588 | 510 | 2,400,000 | | | 6.7 | 7.6 |
| Gabon | 2,157,398 | 3,550 | 3,665,305 | | | | 1.7 |
| Ghana | 240,119 | 430 | 950,352 | 410,712 | 2.3 | 5.8 | 4.0 |
| Guinea-Bissau | 2,367,704 | 240 | 6,613,154 | | | 2.5 | 2.8 |
| Kenya | 12,119 | 260 | 75,725 | 39,890 | 1.9 | 10.3 | 6.2 |
| Mauritania | 52,753 | 500 | 310,918 | | | 5.6 | 5.9 |
| Mauritius | 55,196 | 3,180 | 78,300 | | | 8.1 | 1.4 |
| Niger | 81,070 | 230 | 836,109 | | | 7.9 | 10.3 |
| Senegal | 206,808 | 720 | 2,444,393 | | | 9.1 | 11.8 |
| South Africa | 11,023 | 3,010 | 70,031 | 29,352 | 0.7 | 8.9 | 5.6 |
| Tanzania | 34,327 | 90 | 61,569 | | | 4.1 | 1.8 |
| Togo | 91,068 | 360 | 359,688 | | | 9.0 | 3.9 |
| Uganda | 215,727 | 200 | 1,805,689 | | | 7.9 | 8.4 |
| Zambia | 161,220 | 350 | 512,552 | | | 4.7 | 3.2 |
| Zimbabwe | 5,881 | 490 | 40,000 | 17,480 | 2.3 | 11.4 | 6.8 |
| AVERAGE | | | | | 2.0 | 6.7 | 5.7 |

| ASIA | GDP per Capita (local currency) | GNP per Capita (US Dollars) | (2) Average Government wages | Wages in Manufacturing | Government wages to Manufacturing Ratio | Government wages as percent of GDP | Average Government wages to per capita GDP |
|-----------------|------------------------------------|--------------------------------|---------------------------------|------------------------|---|------------------------------------|--|
| Bangladesh | 8,037 | 220 | 33,180 | | | 3.7 | 4.1 |
| China | 3,772 | 530 | 4,900 | 2,774 | 1.1 | 3.8 | 1.3 |
| India | 10,531 | 320 | 42,000 | 10,633 | 3.9 | 4.2 | 4.0 |
| Indonesia | 1,825,643 | 750 | 2,952,024 | 8,311,248 | 0.4 | 3.0 | 1.6 |
| Korea | 6,063,232 | 8,220 | 19,400,000 | 6,941,928 | 2.8 | 2.2 | 3.2 |
| Lao PDR | 207,349 | 280 | 413,040 | 548,316 | 0.8 | 5.9 | 2.0 |
| Malaysia | 9,731 | 3,520 | 32,837 | | | 7.7 | 3.4 |
| Micronesia | 1,976 | | 16,871 | | | 50.8 | 8.5 |
| Myanmar | 7,877 | | 11,884 | | | 1.9 | 1.5 |
| Pakistan | 8,723 | 400 | 16,797 | 15,476 | 1.1 | 0.9 | 1.9 |
| Philippines | 22,754 | 850 | 52,471 | 57,972 | 0.9 | 5.5 | 2.3 |
| Singapore | 34,261 | 17,440 | 72,480 | 21,814 | 1.6 | 4.6 | 2.1 |
| Sri Lanka | 32,886 | 800 | 58,599 | 35,545 | 3.3 | 5.1 | 1.8 |
| Solomon Islands | 1,529 | 680 | 7,107 | | | 13.4 | 4.6 |
| Thailand | 79,519 | 2,210 | 335,941 | 123,336 | 2.7 | 5.2 | 4.2 |
| Vietnam | 1,883,464 | 190 | 2,010,000 | 1,839,480 | 1.1 | 3.0 | 1.1 |
| AVERAGE | | | | | 1.8 | 4.7 | 3.0 |

Column averages encompass only those countries for which the information is complete

TABLE A-3
GOVERNMENT WAGES

(in local currency and percent)

| EASTERN EUROPE AND FORMER USSR | GDP per Capita (local currency) | GNP per Capita (US dollars) | Average Government wages | Wages in Manufacturing | Government wages to Manufacturing Ratio | Government wages as percent of GDP | Average Public wages to per capita GDP |
|---------------------------------------|---|---------------------------------------|---------------------------------|-------------------------------|--|---|---|
| <i>Central & Eastern Europe</i> | | | | | | | |
| Albania | 63,872 | 360 | 80,710 | 118,032 | 0.7 | 7.2 | 1.3 |
| Bulgaria | 32,258 | 1,170 | 45,024 | 43,194 | 1.0 | 2.7 | 1.4 |
| Croatia | 20,963 | 2,530 | 28,320 | 24,996 | 1.1 | 3.0 | 1.4 |
| Hungary | 343,056 | 3,520 | 216,000 | 261,012 | 0.8 | 3.3 | 0.6 |
| Macedonia | 37,505 | 790 | 70,962 | | | 6.0 | 1.9 |
| Poland | 5,493,225 | 2,470 | | 32,148,000 | | 6.1 | |
| Romania | 262,831 | 1,150 | 238,559 | 650,940 | 0.4 | 5.8 | 0.9 |
| Slovakia | 64,145 | 2,070 | 61,884 | 74,316 | 0.8 | 0.7 | 1.0 |
| Turkey | 32,100,609 | 2,970 | 65,595,018 | 35,702,304 | 1.8 | 2.1 | 2.0 |
| <i>Former Soviet Union</i> | | | | | | | |
| Armenia | 1,045 | 670 | 855 | | | 1.8 | 0.8 |
| Azerbaijan | 21,273 | 500 | 34,729 | 247,020 | 0.1 | 1.8 | 1.6 |
| Belarus | 89,710 | 2,160 | 40,766 | 70,224 | 0.6 | 3.9 | 0.5 |
| Estonia | 14,694 | 2,820 | 17,940 | 12,432 | | 5.6 | 1.2 |
| Georgia | 274,600,000 | 580 | 27,059,712 | | | 0.8 | 0.1 |
| Kazakhstan | 177,833 | 1,110 | 22,488 | | | 2.8 | 0.1 |
| Kyrgyz R | 1,541 | 610 | 1,291 | | | 4.9 | 0.8 |
| Latvia | 87 | 2,290 | 614 | 561 | 1.1 | 6.3 | 7.1 |
| Lithuania | 3,700 | 1,350 | 4,360 | 70,608 | 2.5 | 3.6 | 1.2 |
| Moldova | 4,095 | 870 | 1,848 | 1,718 | | 5.5 | 0.5 |
| Russia | 127,834 | 1,910 | 42,360 | | | 1.7 | 0.3 |
| Turkmenistan | 72,482 | 1,390 | | | | | |
| Ukraine | 2,876,239 | 1,570 | 2,013,367 | 2,590 | | 1 | 0.7 |
| Uzbekistan | | | | | | | |
| AVERAGE | | | | | 0.6 | 3.8 | 1.3 |

| LATIN AMERICA AND CARIBBEAN | GDP per Capita (In local currency) | GNP per capita (US Dollars) | Average Government wages | Wages in Manufacturing | Government wages to Manufacturing wages | Government wages as percent of GDP | Average Government wages to per capita GDP |
|------------------------------------|--|---------------------------------------|---------------------------------|-------------------------------|--|---|---|
| Antigua & Barbuda | 21,175 | 6,540 | 18,503 | | | 11.5 | 0.9 |
| Argentina | 7,466 | 7,270 | 17,812 | | | 2.1 | 2.4 |
| Barbados | 12,617 | 6,230 | 20,907 | | | | 1.7 |
| Belize | 5,374 | 2,613 | 8,620 | | | | 1.6 |
| Bolivia | 3,172 | 770 | 10,750 | 9,295 | 1.2 | 4.0 | 3.4 |
| Chile | 1,566,236 | 3,170 | 6,571,077 | | 1.8 | 3.9 | 4.2 |
| Colombia | 1,200,245 | 1,620 | 2,864,046 | 3,539,923 | | 2.7 | 2.4 |
| Ecuador | 3,312,204 | 1,310 | 6,429,807 | | | 6.5 | 1.9 |
| El Salvador | 12,919 | 1,480 | 24,060 | | | 5.3 | 3.6 |
| Guyana | 50,061 | 430 | 180,288 | | 1.6 | 4.4 | 1.9 |
| Honduras | 3,763 | 600 | 15,075 | | | 8.5 | 4.0 |
| Nicaragua | 2,994 | 340 | 9,492 | 14,242 | 1.5 | 7.0 | 3.2 |
| Uruguay | 16,793 | 3,960 | 35,132 | 23,414 | | 5.0 | 2.1 |
| Venezuela | 392,459 | 2,760 | 706,836 | | | 4.8 | 1.8 |
| AVERAGE | | | | | 1.5 | 4.9 | 2.5 |

Column averages encompass only those countries for which the information is complete.

TABLE A-3
GOVERNMENT WAGES
(in local currency; : nd percent)

| MIDDLE EAST AND NORTH AFRICA | GDP per Capita (local currency) | GNP per Capita (US Dollars) | Average Government wages | Wages in Manufacturing | Government wages to Manufacturing wages | Government wages as percent of GDP | Average Government wages to per capita GDP |
|------------------------------|------------------------------------|--------------------------------|--------------------------|------------------------|---|------------------------------------|--|
| Algeria | 43,474 | 1,690 | 124,236 | | 0.9 | 9.7 | 2.9 |
| Bahrain | 3,208 | 8,030 | 4,212 | | | 7.1 | 1.3 |
| Egypt | 2,278 | 710 | 10,746 | 3,274 | 3.3 | 8.4 | 4.7 |
| Jordan | 877 | 1,300 | 2,401 | 1,296 | 1.9 | 14.4 | 2.7 |
| Lebanon | 6,461,155 | | 8,775,259 | | | 1.5 | 1.4 |
| Morocco | 9,546 | 1,020 | 42,676 | 33,000 | 1.3 | 12.1 | 4.5 |
| Syria | 21,998 | 1,150 | 65,214 | | | 8.7 | 3.0 |
| Tunisia | 1,697 | 1,800 | 5,091 | | | 7.1 | 3.0 |
| Yemen | 27,273 | 280 | 90,000 | | | 8.0 | 3.3 |
| AVERAGE | | | | | 1.0 | 9.8 | 3.4 |

| OECD | GDP per Capita (local currency) | GNP per Capita (US Dollars) | Average Government wages | Wages in Manufacturing | Government wages to manufacturing wages | Government wages as percent of GDP | Average Government wages to per capita GDP |
|----------------|------------------------------------|--------------------------------|--------------------------|------------------------|---|------------------------------------|--|
| Australia | 24,183 | 17,490 | 31,745 | 33,475 | 0.9 | | 1.3 |
| Austria | 265,189 | 23,500 | 256,421 | 296,916 | 0.9 | 3.7 | 1.0 |
| Belgium | 725,040 | 21,650 | 1,758,526 | 836,141 | 2.1 | 7.3 | 2.4 |
| Canada | 24,489 | 19,960 | 40,561 | 33,370 | 0.2 | 2.2 | 1.7 |
| Denmark | 170,726 | 26,390 | 227,705 | 228,645 | 2.0 | 12.9 | 1.3 |
| Finland | 94,634 | 19,400 | 119,767 | 112,971 | 1.3 | 3.3 | 1.3 |
| France | 123,340 | 22,490 | 127,220 | 92,189 | 3.9 | 3.3 | 1.0 |
| Germany | 39,150 | 23,560 | 48,994 | 32,757 | 1.5 | 2.4 | 1.3 |
| Greece | 1,618,620 | 7,480 | 6,725,656 | 2,318,765 | 2.9 | 9.5 | 4.2 |
| Ireland | 9,139 | 13,010 | 11,300 | 13,179 | 0.9 | 5.3 | 1.2 |
| Italy | 27,312,197 | 19,840 | 38,866,464 | | | 5.9 | 1.4 |
| Japan | 3,764,873 | 31,360 | | 4,456,272 | | | |
| Netherlands | 30,467 | 20,950 | 61,500 | | | | 2.0 |
| New Zealand | 21,703 | 12,600 | 69,093 | | | 3.6 | 3.2 |
| Norway | 152,305 | 25,960 | 160,141 | | | 3.6 | 1.1 |
| Portugal | 1,452,906 | 8,950 | 2,286,753 | 2,578,752 | 0.9 | 11.5 | 1.6 |
| Spain | 1,542,623 | 13,580 | 2,773,000 | | | 5.3 | 1.8 |
| Sweden | 169,750 | 24,740 | 129,729 | 47,689 | 2.7 | 3.0 | 0.8 |
| Switzerland | | 35,750 | | 13,073 | | 0.8 | 1.5 |
| United Kingdom | 10,838 | 18,050 | 16,789 | 47,689 | 0.4 | 4.5 | 1.5 |
| US | 24,263 | 24,263 | 36,941 | 13,073 | 1.3 | 2.3 | 1.5 |
| AVERAGE | | | | | 1.6 | 4.5 | 1.6 |

Column averages encompass only those countries for which the information is complete.

Methodological Note

Regional country groupings are consistent with that of the World Bank. Accordingly, reference to:

Africa encompasses only sub-Saharan Africa.

Asia encompasses South East Asia, excluding Japan. Note that Korea, although waiting for ratification of its membership in the OECD, is included in Asia for the purpose of this analysis.

ECA Region encompasses nations of Eastern Europe and Central Asia. Note that the Czech Republic, Hungary, Poland and Turkey, although members of the OECD, are included in ECA for the purpose of this analysis.

Latin America and The Caribbean encompasses the following nations of North, Central and South America. Note that Mexico, although a member of the OECD, for the purpose of this analysis is included in the Latin America and the Caribbean grouping.

Middle East and North Africa region encompasses selected Arab countries of North Africa and the Near East, in which the bank is active.

OECD region encompasses member countries of the Organization for Economic Cooperation and Development, except for Turkey (included, for this analysis, in the ECA region), Mexico (included, likewise, in the LAC region), Luxembourg and Iceland (for which the requisite data are not available). Specifically, it includes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States.

Sources of Data

Governments: through statistical yearbooks, yearly budget documents, personnel ministries or agencies, inquiries to embassy personnel.

The World Bank alone has undertaken 86 lending operations with civil service/public administration components, in the context of stand-alone operations, as well as studies and analyses for various other types of Bank documents, such as Public Expenditure Reviews and Country Economic Memoranda. Data have also been collected by various Resident Missions, at the request of the authors.

The International Monetary Fund (IMF) regularly collects data on wages and salaries in the public sector. The Fund, through its *Government Finance Statistics*, maintains a database of information on wages and salaries. In addition, it produces yearly assessments of economic and fiscal performance (i.e. Staff Background notes or Recent Economic Development series). In our study, these sources were complemented by the Fund's country desk resources, who responded to the authors' requests for data.

OECD has long collected information on public sector employment and wages for its member-countries and countries in Eastern Europe and the Former Soviet Union, through the PUMA program (public management). In this study, we have used, especially, the 1992 publication "Public Management: OECD Country profiles".

UNDP studies on public sector employment were used as well. They were especially useful in countries such as Egypt, where all other sources of employment data were scarce. UNDP, through its publication "Human Development Reports" for various countries has provided very valuable contextual and anecdotal information for this paper.

WHO and UNESCO, the United Nations agencies in charge of health and education respectively, sources were used to corroborate data on Health and Education employment coming from other sources, as well as directly providing us some valuable data on health and education employment in some countries.

EC PHARE and TACIS, the European Union institutions which provide development assistance to Central and Eastern European countries and to the CIS respectively, have been very active in providing technical assistance on matters of Public Administration Reform and therefore are a good source of data on public sector employment and wages.

Technical Notes

Population labor and Employment

Population and Labor Force: Population data are based, in most cases, on a de facto definition. Refugees not permanently settled in the country of asylum are generally considered to be part of the population of the country of their origin.

The total labor force consists of the "economically active" population - a restrictive concept that includes the armed forces and the unemployed but excludes homemakers and other unpaid caregivers.

Participation rate: This concept refers to the percentage of the population that is economically active.

Unemployment: This concept is in accordance with the Resolution concerning statistics of the economically active population, employment, unemployment and underemployment adopted by the Thirteenth International Conference of labor statisticians (1982). It comprises all persons between the ages of 15 and 64 who, during the reference period, were without work, currently available for work and seeking work.

There are, however, ample differences in the way each individual country treats this definition when compiling its own statistics. In a number of cases, national definitions of unemployment differ from the recommended standard definition. Differences relate to the age limits, treatment of persons temporarily laid off, and of persons seeking work for the first time.

Furthermore, intercountry comparisons are also affected by the variety of types of sources used to obtain information on unemployment and the differences in scope and coverage of such sources. In this study, the data will relate to the entire country in question. Rural areas, however, have tended to be less well covered than other areas in unemployment statistics.

In general, there are four main sources of unemployment statistics which may be distinguished.

- Labor force sample surveys or general household sample surveys generally provide very complete statistics on unemployment since, in particular, they include groups of persons who are not covered in unemployment statistics by other methods.
- Social Insurance Statistics which come from compulsory unemployment insurance schemes, which as a rule have broad industrial coverage and relate to wage earners and salaried employees, or sometimes to wage earners only. Unemployment figures are then computed by comparing the number of people drawing insurance benefits with the total number of insured persons covered by schemes. The problem with this type of approach is that it is difficult to ascertain whether the people covered by the insurance scheme are representative of the country or whether they cover enough people. Therefore the data will give a distorted picture of unemployment in the former case or simply underestimate unemployment in the second.
- Employment office statistics generally refer to the number of applicants for work on the registers at the end of each month. They may include people without a job, but also people on strike, or temporarily unable to work and persons engaged on unemployment relief projects. While the statistics, in principle, do not include persons already in employment, some series also include persons in employment who are seeking a change of job or extra work and are therefore registered at employment offices. The value of these statistics varies widely. Where, for example, employment offices function in close connection with unemployment insurance, and registration is a qualifying condition for the receipt of unemployment benefits, they are comparable in reliability to compulsory unemployment insurance statistics. On the other hand, where registration is entirely voluntary and especially where the employment offices function only in the more populous regions of a country, or are not widely patronized by employees seeking work or by employers seeking workers, the data are generally very incomplete and do not give a reliable indication of the extent of unemployment. The scope of employment office statistics is therefore very difficult to ascertain and, in general, these statistics are not comparable from country to country.
- Official estimates, which are provided by national authorities and are usually based on combined information drawn from one or more of the above sources.

Non-Agricultural employment: This concept covers all major divisions of economic activity other than the major division "Agriculture, hunting, forestry and fishing".

Public Sector Employment

The conceptual definitions used in this study are consistent with the International Standards put forth in the System of National Accounts, to which the majority of our sources, especially International Organizations, adhere.

Employment data cover both full-time and part-time employees. Whenever possible, the differences in employee status were highlighted in the country notes accompanying the tables.

General Government and Public Enterprises together make up the largest aggregate called **Public Service**. The relationship between the "boxes" we have created is shown in Table A-1.

General government includes employment in "all government departments offices, organizations and other bodies which are agencies or instruments of the central or local authorities whether accounted for or financed in, ordinary or extraordinary budgets or extra-budgetary funds. They are not solely engaged in administration but also in defense and public order, in the promotion of economic growth and in the provision of education, health, cultural and social services."¹

Within General Government we have distinguished five different units which are mutually exclusive categories.

Government administration includes executive and legislative administration by departments directly dependent on the Head of State or the Parliament, together with all other ministries and administrative departments. Consequently, government administration in our definition is general government less teaching and health personnel.

Government administration is in turn divided into two categories:

Central Government, which includes all employees paid by the central government budget;

Non-central government, which encompasses all government administration employees who are not specifically funded by the central government. It includes municipalities, as also regional, provincial or state (in a federal system) employment.

The distinction here is not solely a geographical one, but more importantly a budgetary one. Non-central Government employees are those people who appear in the books of a non-central government organization, and not all those employees who are posted locally. Therefore, the definition makes a clear distinction between decentralization and deconcentration. Deconcentration, i.e., the geographical dispersal of central government entities without changing their lines of ultimate authority and sources of finance is understood here as a different method of exercising central government functions and not as a basic change in the power relationships between central and local governments. While deconcentration is an important development our underlying assumption is the traditional one: "he who pays the piper calls the tune".

Health employment covers employees of government hospitals and other government health institutions at all levels of government. It includes medical and paramedical staff (doctors, and nurses), laboratory technicians and workers in technical facilities. Wherever possible, administrative employees working in the health sector have been placed in Government administration and not in health employment.

Education employment covers primary, secondary and university education employment. Where we were able to identify them, administrative employees either working in the Ministry of Education or in the school system were placed in Government administration.

Defense includes all enlisted personnel (including conscripts) and professional military. Where we were able to identify them, administrative employees of the Ministry of Defense were considered to be part of Government administration. Since defense is not within the scope of this study, we will focus essentially on **Civilian Government**.

Reference is occasionally made to **Consolidated Central Government** - this definition, consistent with data originating from the IMF, corresponds to Government administration, education and health employment.

In the public sector, but outside of General Government, are **Public Enterprises**, majority-owned, directly or indirectly, by the state. Employment in public enterprises is also not discussed in this study as it raises very different issues from government employment.

Government Wages

Certain concepts require further explanation:

Average Government wages: Represents the ratio between Central government's wage bill and the number of central government employees. It is important to note, in this instance, that the difference in functions that each individual country imparts onto its government complicates the calculation of this data. Issues of how to classify government employees, are relevant to this discussion. Where a specific source is listed for this item, the authors have used already available figures, thereby considerably reducing any doubt as to their accuracy. Where the source is not listed, the figure is the result of authors' estimates, and therefore requires an extra amount of caution.

¹ International Standard of Industrial Classification of All Economic Activities (ISIC), Series M No.4, Rev 3- 1990.

Average Government wages to per capita GDP: is meant to provide information on the condition of an average Central Government employee of a particular country in relation to the living standard of that country, as measured by the per capita GDP. It is therefore calculated by dividing the average wage by the per capita GDP estimate. This, however, sometimes fails to encapsulate the real conditions of central government employees to the extent that certain non-wage benefits are not included in the estimate of the average central Government wage.

GNP per capita (in US Dollars) is from WB database and relates to the same year as GDP per capita in local currency.

Sources

Population and labor force data are taken from the World Bank's Social Indicators of Development 1996 and refer to 1994, unless otherwise indicated. Unemployment rate taken from CIA Factbook 1995, unless otherwise indicated.

Military employment data are taken from International Institute for Strategic Studies: The Military Balance Survey of 1995-96, unless otherwise specified.

Wages and salaries are taken from IMF Government Finance Statistics, 1995 and GDP from World Tables 1995, unless otherwise specified.

Africa

Angola

Data on Central Government and military employment relate to 1995 and are broken down as follows: 120,000 civil service (central and provincial governments) and 82,000 police. Data on Health employment relate to 1990. (Source: Health Project of October 23, 1992 -- Staff Appraisal Report). The report states that the number of MOH Workers was 27,771, of which 662 were physicians, 9,145 paramedical (mainly nurses), 1,691 traditional birth attendants, 4,165 health promoters (and others with little or no health training). Data on Education are taken from Peter Ngoba, Education Specialist for Angola, and are broken down as follows: 31,900 teachers for the first four grades, 3,200 teachers for fifth and sixth grade, 1,100 for seventh and eighth, 170 for pre-university, 300 for normal (teacher training), 280 for technical education and 650 for higher education. Data are for 1992. Data on Local Government employment are an estimate of provincial government from AF1MI and relate to 1995. Angola's situation is greatly affected by the Civil War that has engulfed that country for the past two decades. Data must be handled with great care. Data on Wages and salaries as percentage of GDP are taken from IMF Background paper No. SM/95/258 of October 4, 1995 and relate to 1994. GDP, Average Government wages and Average Public wages to per capita GDP are based on calculations emanating from this data. Non-agricultural employment data are taken from International Labor Office's Yearbook of Labor Statistics 1995 and are for 1992. They reflect data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Botswana

Botswana Central Government employment and local Government employment are taken from IMF Report No. SM/94/278 of November 15, 1994 and relate to 1993. Education data is taken from UNESCO Statistical Yearbook, 1995 and relates to 1992. It includes 10409 primary education teachers and 4467 secondary level teachers. Military employment data includes 7,000 personnel in the army and 500 in the air force. Wages and Salaries of Consolidated Central Government relate to 1993. All other data are obtained through calculations emanating from this data. Data on wages in manufacturing are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994.

Burkina Faso

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994 and source III, Code 2: *employment office statistics* and include persons in employment who are seeking a change of job or extra work and are therefore also registered at employment offices. This method of data gathering may result in an underestimation of the actual unemployment rate, since registration at the employment office requires time and money and the incentives may not be sufficient to justify it. Central Government Employment is taken from IMF Staff Country Report No. 96/5 of February 1996. It relates to 1994. Armed Forces estimates include the Gendarmerie, a military corps entrusted with some policing activities. Average Civilian wage in the Public sector is taken from the IMF Staff Country Report No. 96/5 Burkina Faso-Background Papers and Statistical Update and refers to 1994. GDP per capita is an estimate based on GDP at market prices figures stated in the IMF Staff Country Report No. 96/5, and refers to 1994. Wages and Salaries as percent of GDP is based upon IMF Staff Country Report No. 96/5 estimate of Civilian Wage bill and GDP at market prices and refers to 1994. Average wage over per capita GDP is the result of the division of these two results.

Burundi

Population estimate is taken from IMF Report No. 96/43 of May 1996 and relates to 1996. Labor force data are taken from the World Bank's Social Indicators of Development 1996 and refer to 1994. Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992. The data are from official estimates of the Burundian government. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1992 and source III, Code 2: *employment office statistics* and include persons in employment who are seeking a change of job or extra work and are therefore also registered at employment offices. This method of data gathering may result in an underestimation of the actual unemployment rate, since registration at the employment office requires time and money and the incentives may not be sufficient to justify it. Central Government, Education, Health and State-owned enterprise employment data are from IMF Staff Country Report No. 96/43 of May 1996 and relate to October 1995. Armed Forces estimates include the Gendarmerie.

Civilian wage bill in the Central Government is taken from IMF Staff Country Report No. 96/43--Burundi Statistical Annex and refers to 1995. GDP at market price is an estimate from the same report for 1995. Accordingly, GDP per capita, Average Central Government wage, Wages and salaries as percent of GDP as well as Average Government Salary are based on this data.

Cameroon

Data on Central Government and employment come from Marc Stephens (AF5CO) and is for 1993. Education data are provided by Herbert Bergmann (AF3PH) and are for 1994/95. Total Teaching staff is estimated at 67,530, of which 40,970 are in primary schooling, and 14,917 in general secondary. Administrative staff is estimated at 650 for the central level, and 200-300 people at the provincial level (20-30 staff for each of the 10 provinces). At lower levels, sub-delegations have been created but the number of employees is unknown. There are 67 Inspectorates at departmental levels with 3-5 staff each (201-335 people) and 200 sub-inspectorates (number of employees unknown). Total administration staff is therefore estimated at 1,235, which will be included among central and non-central government employment respectively and not in education employment. Health employment is from WHO and is for 1993. GDP is taken from World Tables 1995 and refers to 1993. Data on Central Government wage bill (civilians) are projections from Mark Stephens for 1995, based on IMF Background document of December 11, 1994 and mission calculations. Average monthly civilian rate is also from the same document.

Cape Verde

Population data are taken from the World Bank's Social Indicators of Development 1996 and refer to 1994. Labor Force and unemployment data are taken from IMF Report SM/96/212 Recent Economic Developments of August 12, 1996 and relate to 1995. Data on Central Government, Non-central Government, Education and Health and State-owned enterprises employment are taken from IMF Report No. SM/96/212 of August 12, 1996 and relate to 1995 (estimates).

Central African Republic

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1990. Non-agricultural employment is taken from ILO's Yearbook of Labor Statistics 1995 and is for 1992. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment. Armed forces include 2,300 personnel in the Gendarmerie, a military paramilitary corps entrusted with many domestic policing activities. Education data are given by Herbert Bergmann (AF3PH). Teachers make up 4,314 people and teachers in administrative posts number 486.

Wages and Salaries as percent of GDP is from Antoine Schwartz, Senior Economist, PSP, and is for 1994.

Chad

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991.

Data on Central Government, Education and Health come from IMF Staff Country Report No. 96/61, Statistical Annex IV of July 1996, and relate to 1995.

Comoros

Population, labor force, and unemployment estimates are taken from IMF Study SM/96/221 of August 16, 1996 and relate to 1991. All other estimates emanate from this data.

Estimates on Central Government, Non-central Government, Education and Health employment are taken from Recent Economic Developments, IMF study no. SM 96/221 of August 16, 1996 and relate to 1995.

Congo

Central Government, Education and Health employment are taken from Recent Economic Developments, IMF Report No. SM/94/123, and relate to 1993. Public enterprise employment is also from the IMF Report for 1993. It probably understates the actual number of employees as it covers only the largest key state-owned enterprises.

Côte d'Ivoire

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1990. Data are from official sources of the Ivorian government.

Unemployment is taken from the Private Sector Assessment of December 29, 1994 (pg. 4, para. 1.13).

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Central Government employment is taken from "Atelier Regional de la Fonction Publique" of the Ministry of Public Administration (July 1995) and relates to 1993. Local government employment is taken from the Appendix of the Municipal Support Project of March 1995 and relates to 1993. This document, the government's policy letter, states that permanent positions number 11,832 for local administration and as many as 10,000 occasional workers. Occasional workers are not included in non-central Government employment estimate. Military employment data include the Presidential guards (1,100) and the Gendarmerie (4,400), but do not include reserves.

GDP at Market Prices and wage bill estimates are from Ian Lienert (IMF) and relate to 1995. Accordingly, GDP per capita, Wages and salaries as percent of GDP are based on this data. Average central government wage is taken from IMF Report No. SM/96/276 of November 1, 1996 and relates to 1995.

Djibouti

Central Government Employment, Education and Health employment data are taken from IMF Staff Country Report No. 96/44 of June 1996 and relate to 1995. State-owned enterprise employment data are also taken from IMF Staff Country Report 96/44 of June 1996 but relate to 1992.

Ethiopia

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1993 and source III, Code 1: *Employment office statistics* and include people who are registered on the books of the employment office. This estimate may be underestimating the number of unemployed persons in Ethiopia.

General Government employment is taken from WB Report No. 12992 ET, Public Expenditure Review of October 21, 1994 and relates to 1994. Employment in State Owned enterprise estimates are taken from IMF Report No. SM/94/234 of August 31, 1994 and relates to 1994. Following the declaration of independence by Eritrea in April 1993, the estimated strength of the Ethiopian armed forces is some 120,000. Most are former members of the Tigray Liberation Front, with perhaps 10-15,000 from the Oromo Liberation front. Estimated numbers in service must be taken with caution.

Gabon

Non-agricultural employment is from IMF Report SM/95/242, Background Paper of September 19, 1995 and relates to 1993.

Central Government, Non-Central Government and State-owned enterprise employment is taken from IMF Background Paper No. SM 95/242 of September 19, 1995 and relates to 1993. Education data are supplied by Herbert Bergmann AF3PH and are for 1995. Education employment is made up of 6,530 teachers, of which 4,412 are for elementary schools, and 2,118 for secondary schools.

GDP and Wages and Salaries estimates are taken from IMF Background Paper No. SM/95/242 of September 19, 1995 and relate to 1995.

Gambia

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1987. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Central, Non-Central, Education and Health employment are taken from IMF Report No SM/95/238 of September 18, 1995, Statistical Annex and relate to 1994/95.

Ghana

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Central Government employment corresponds to "Civil Service organizations". Local Government corresponds to Metropolitan, municipal and district assemblies. The number for Education Service excludes 18,000 trainees. Education is believed to continue to be paid by the central government since recurrent expenditures authority has not yet been devolved to local authorities. Health employment data include people working for the Ministry of Health and people working in Health for subvented agencies. No information is available regarding administration staff in both these areas; accordingly, data on health probably overstates the number of medical personnel and understates that of central government personnel. Military employment does not include paramilitary personnel in the people's militia (5,000 part-time force with police duties), or the Presidential Guard (one infantry battalion). State-owned Enterprise employment is taken from IMF Staff country Report No. 96/69 of August 1996. It states that from the 240,000 jobs which state-owned enterprises provided in the 1980's, 41,000 had been retrenched by 1993 and additional jobs were being targeted by the Bank-funded PSAC in 1996-97. Therefore the figure of 1993 corresponds to the 240,000 less the 41,000.

Wages and salaries for Consolidated Central Government are from IMF Government Finance Statistics, 1995 and relate to 1993. Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1991.

Guinea

Military employment includes 7,500 conscripts, but does not include paramilitary forces such as the people's militia (7,000), the gendarmerie (1,000) or the Republican Guard (1,600).

Guinea Bissau

Unemployment estimate is from WB Country economist and relate to 1995.

Data on Central Government come from Marcelo Andrade (AF5CO) based on his February 1996 mission, and refers to the end of 1995. Data on Education and Health are from IMF estimations. Source: Esteban Garcia de Motilao (AF5CO). Local Government employment is a staff estimate (AF5CO).

GDP estimate is taken from World Tables 1995 and relates to 1993. Wages and salaries are from Esteban Garcia de Motiloa (AF5CO) and relate to 1994.

Kenya

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment. Central government, Non-Central government, and Education data are taken from 1995 Economic Survey published by the Central Bureau of Statistics. Data are for 1994. Health employment is taken from the Republic of Kenya's Central Bureau of Statistics' Statistical Abstract, 1991 and relates to 1991. Public Health employment statistics must be read with caution. Since there is a fee for registration and no annual license, respective registers may include those who do not practice or who have left the country. Employment in state-owned enterprises is taken from 1995 Economic Survey published by the Central Bureau of Statistics and relates to 1994. Employment in State-owned enterprises is made up as follows: 106,900 persons working in parastatals fully owned by the Republic of Kenya (Includes Kenya Railways, Kenya Ports Authority, Kenya Posts and Telecommunications Corporations, Kenya Airways Ltd), and 48,800 persons in those institutions with a majority control by the public sector. GDP and wages and salaries of Consolidated Central Government are from IMF Government Finance Statistics, 1995 and relate to 1994. Data on wages in manufacturing are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1991.

Lesotho

Unemployment rate and non agricultural employment estimates are for 1993, and are taken from Report No 13171-LSO, Poverty Assessment and reads: "The unemployment rate in 1993 -- counting unemployment and underemployment - was estimated to be an alarming 35 to 45%". We have taken the median value. This unemployment rate, however, clearly overstates the actual unemployment in Lesotho, particularly compared to other nations in our survey. Data on Central Government employment, and Education employment are taken from IMF Study SM/96/234 of September 9, 1996 and relate to 1995.

Madagascar

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1989 and source III, Code 2: *employment office statistics* and only include persons who are actually registered at the employment office at the end of each month. Accordingly, they are likely to understate the number of unemployed persons in Madagascar. Data on Central Government employment are taken from the IMF Staff Country Report No. 96/59, Madagascar - Selected Issues and Statistical Annex, dated June 1996 and relate to 1994. Data on State-owned enterprises are taken from the IMF Staff Country Report No. 96/59 Madagascar - Selected Issues and Statistical Annex, dated June 1996 and relate to 1994. The number stated probably underestimates the actual number of employees of State-owned enterprises.

Malawi

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of this particular form of employment. Central Government, Education and Health employment is taken from the Malawi Government Civil Service Census of 1995, published on March 30, 1996 and relates to 1995.

Mali

Central Government employment, education and health employment data are taken from Fabien Nsengyiumva (AFTM5) and relate to June 1996. Local Government employment in Mali, according to Mr. Nsengyiumva, is non-existent at the moment. Central Government employees are currently posted in the regions but are paid by the Central Government budget. Mali is beginning the process of decentralization of government. Employment in State-owned enterprises is also taken from Mr. Nsengyiumva (AFTM5) and relates to June 1996.

Mauritania

Central Government Employment, Education and Health employment are taken from IMF Staff Country Report No. 96/45 of June 1996 and relate to 1994. Data on GDP at market prices, and Central Government wage bill are taken from IMF Staff Country Report No. 96/45 of June 1996, and refer to 1993. Accordingly, GDP per capita, average Central Government wage rate and Average Salary as a multiple of per capita GDP are calculated on the basis of this data.

Mauritius

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1994 and source III, Code 1: *Employment office statistics* and only include persons who are actually registered at the employment office at the end of each month.

Central, Non-central Government employment as well as Education and Health data are taken from the Republic of Mauritius' Central Statistical Office Digest of Labor Statistics, 1995 and relate to 1994.

GDP at market prices is from IMF Background report No. 96/1 of January 1996 and refers to 1994. Central Government Average salary is also taken from IMF background report and is for 1994. Data on that report was for monthly wages and therefore had to be multiplied by 12 to obtain yearly wages. Data on paid employment in non-agricultural activities is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1988.

Mozambique

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1988. It reflects data gathered through Establishment surveys, that is, data on the number of workers on establishment payrolls. This in turn may result in an underestimation of employment.

Namibia

Unemployment and employment in non agricultural activities data are taken from ILO sources.

Central Government employment data is taken from Public Expenditure Review of July 12, 1995. Education employment data are also taken from Public Expenditure Review of July 12, 1995 (Table 10.4) and relate to 1994. They includes Primary School Teachers, Secondary School teachers and Literacy promoters. Health employment estimate also are taken from the Public Expenditure Review of July 12, 1995 (Table 10.2) and relate to 1994. They include Doctors, Nurses, Community Health workers and Traditional Birth Attendants.

Niger

Paid employment in non-agricultural activities is taken from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991. The data reflect the working population.

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1991 and source III, Code 1: *Employment office statistics* and do not include persons who are already in employment.

Central Government, Education and Health employment is taken from Ide Gndou in the Resident Mission in Niger (AF4NI) and relate to 1995. Data on military employment do not include personnel enlisted in the paramilitary, i.e. Gendarmerie (1,400), Republican Guard (2,500) or the national police (1,500).

GDP at current prices is taken from World Tables 1995 and relates to 1993. Wage bill of Central Government is taken from Ida Gndou (AF4NI) in the resident mission and relates to 1995. Calculations of Average Central Government wages were reconfirmed with Mr. Gndou. Data on paid employment in non-agricultural activities is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1991.

Nigeria

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1993 and source III, Code 1: *Employment office statistics* and do not include persons who are already in employment.

Data on Civil Service employment is taken from Nigeria Federal Expenditure Review of May 25, 1995 and relates to 1993. Education employment is also taken from Nigeria Federal Expenditure Review of May 25, 1995. Data refers only to employees of the Federal Government. Responsibility over education are divided among all tiers of government, with the central government having the main responsibility over tertiary education, the state governments for secondary education and local governments for primary education. Health employment figures are also from Nigeria Federal Expenditure Review of May 25, 1995 and only refer to the employees of the Federal Government. Data on military do not include personnel enlisted in paramilitary corps such as the Port Security Police (2,000) or the Security and Civil Defense Corps (unknown).

Sao Tome & Principe

General Government employment estimate is from IMF Report 96/70 of August 1996 and relates to 1993.

Senegal

The unemployment rate is taken from Priority Survey (Direction de la Prévision et de la Statistique) for the year 1992. It does not include people who are currently underemployed as reported by Abdoulaye Seck (AF5SN) and is for 1992.

Central, non-central, education and employment data are provided by Abdoulaye Seck in the Senegal Resident Mission. Data on Education and Health are taken from a survey done by a local consulting firm in March 1995. Salaries for Health are entirely paid by the central administration. Contributions of local administrations are mostly for payment of salaries of temporaries (proctors, cleaning crews, etc.). This staff is not included in the total health employment. The Armed Forces, the largest component of military employment, is mostly made up of conscripts. The data on military employment do not include people enlisted in paramilitary corps such as the Gendarmerie (4,000).

GDP estimates are from World Tables 1995 and relate to 1993. Wages and salaries estimate is taken from Abdoulaye Seck (AF5SN) and is for 1994. Data on wages and salaries as multiple of per capita GDP was confirmed with Mr. Seck and is consistent with results of other francophone countries.

Seychelles

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1990.

Sierra Leone

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1989.

South Africa

Population data are taken from IMF Government Finance Statistics and are for 1994. Unemployment rate is a CIA Factbook 1995 estimate from 1994. Underemployment is estimated at 11%. Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data are taken from the South African Statistical Yearbook of 1992, and refer to 1991. Local Government Employment relates to both Provincial Government employment and Local authorities and self governing territories. Education and Health data are taken from UNESCO and WHO sources respectively and are for 1991. Regarding military employment, an estimated 35,000 people from other forces, including MK and the Homelands, are being absorbed into the new South African National Defense Force. Of these 11,000 are already members.

GDP estimate is taken from IMF Government Finance Statistics 1995 and is for 1994. Wages and salaries of Consolidated Central Government are from IMF Government Finance Statistics 1995 and are for 1994 (provisional). Data on wages in manufacturing are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Sudan

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1992 and source III, Code 2: *employment office statistics* and include persons in employment who are seeking a change of job or extra work and are therefore also registered at employment offices. This clearly underestimates the number of unemployed people in Sudan.

Swaziland

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992.

Tanzania

Central Government and Local Government employment are taken from document provided by Vedasto Rwechungura (Tanzania Resident Mission) and relate to 1996. Education employment is also taken from information received from Vedasto Rwechungura (Tanzania Resident Mission). It indicates that Primary School teachers are estimated at 97,001 as of July 1, 1996 and secondary education teachers were estimated at 19,020. Universities in Tanzania are autonomous, therefore employees are not on the Government payroll. The total education employment is therefore estimated at 116,021. Health employment has also been provided by Vedasto Rwechungura (Tanzania Resident Mission). As of July 1, 1996, paramedical staff (Nurses, medical attendants, technicians, etc.) on the payroll are 23,483. Rare professionals such as doctors are approximately 2,000. Accordingly, health employment totals 25,483 persons. Military personnel is expected to be reduced to 25,000 in 1996/97. Data do not include enrollment in paramilitary units such as the Police Field Force (1,400), the Police Air Wing and Marine Unit, and the Citizens' Militia, the reserve corps.

GDP at market Prices is taken from World Tables 1995 and relates to 1993. Central Government wage bill is taken from Tanzania: Role of Government: Public Expenditure Review of June 17, 1994 and refers to 1993.

Togo

Data on Central Government, Education and Health employment are taken from Harold Schwartz files and Ministry of Works and Public Functions (Ministere du travail et de la fonction publique) and relate to the situation as of September 1995. Local Government employment is an estimate from Antonella Bassani in AF4CO based on her Public Expenditure Review mission. Health and education are solely the responsibility of Central Government. Data on State-owned Enterprises are from the IMF Staff Country Report No. 96/12 - Statistical Annex, of February 1996 and relate to 1995. Data on military personnel do not include enrollment in paramilitary units. The Gendarmerie (750), under the control of the Ministry of Interior, is not included in our data.

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992.

GDP at Market Prices is from World Tables 1995 and is for 1993. Wages and Salaries are from Antoine Schwartz, Senior Economist, PSP, and are for 1994. Data on Average Public Sector Salary is from Antoine Schwartz, Senior Economist, PSP, and relate to 1994.

Uganda

Data on Central Government, Non Central Government and Education employment is taken from Uganda Government Payroll system, September 1996 and refer to 1996. Data provided by Dennis Hooper, Senior Adviser/ Civil Service Reform in the Ministry of Public Service of Kampala. Central Government employment includes 16,700 police personnel and 3201 people working in the Prison Services. It also includes employees of agencies outside the core civil service, for which total employment is estimated between 2,000 and 4,000 employees. We

have accordingly increased the number of central government employees by adding 3,000 employees. Local Government employment is corrected for the number of local government staff who are not on computerized payroll and are paid directly by local government. Mr. Hooper estimates these to be between 2,000 and 4,000 people. We have added 3,000 people to the number stated in the Government payroll data. Education employment is also from the Uganda Payroll system, September 1996. It includes 68,326 primary school teachers, 15,921 Secondary School teachers and 12,419 Tertiary and University faculty. Teaching numbers include under secondary and tertiary approximately 6,000 non teaching staff (e.g.: cooks, cleaners, and office workers working at schools.) Health employment is based on an estimate from Mr. Hooper. Health sector staff was included in both central and non central government data. In order not to double count employment, we have subtracted 4,000 employees to both the estimate of Central Government and Non Central Government employees. Data on military personnel includes 400 Marines and 800 Air Wing personnel. GDP estimate is from World Tables 1995 and is for 1993. Wages and salaries as percentage of GDP is an estimate taken from SAR of Institutional Capacity Building Project of May 9, 1995 and relates to 1994.

Zaire

Data on General Government, Education and Employment in State-owned Enterprises is taken from IMF Staff Country Report No. SM/96/45 of February 23, 1996 and relates to 1994. Data on military employment do not include enrollment in paramilitary units.

Zambia

Unemployment is taken from CIA Factbook and refers to 1993. Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1989. Central Government employment, Education and health employment are from Zambia Public Expenditure Review of April 20, 1995 and relates to 1994. Local Government employment is from the same report but relates to 1993. Education and Health correspond to civil servants in the Education scales and Medical scales. GDP and Wages and Salaries of Consolidated Central Government estimate are from IMF Government Finance Statistics Yearbook 1995 and relate to 1993.

Zimbabwe

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994. Data on Central, Non-central Education and Health employment is also from Arne Disch, AF1M1 and relates to 1996 "Local Government employees are estimated as follows: The 22 urban councils have budgets which together are close to 10% of central Government's. The average cost would be lower than for Central government's, but you can safely assume at least the same labor recurrent cost ratio as in central government. Accordingly, an estimate of 25,000, including provincial and rural districts is probably close. Health employees are 23,000, of which 6400 civil servants and 16400 other health employees, largely funded from ministry budgets, though local authorities, particularly urban councils in the larger cities contribute a lot". Data on military employment do not include employment in paramilitary units, such as the Zimbabwe Republic Police Force (19,500), Police Support Unit (2,300) and the People's Militia (1,000). Wages and Salaries as percent of GDP and Average wage is from IMF Report No. SM/96/32 of February 7, 1996 and relates to 1995. Central Government wage bill is a Staff estimate from Arne Disch (AF1M1), currently working on a Public Sector Review in Zimbabwe. The data relates to the 1995/96 fiscal year. GDP is from IMF Staff Country Report and relates to 1994. Calculations of Average Public Sector wages and Average wage as percentage of GDP result from this data. Data on wages in manufacturing (monthly basis) are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

Asia

Afghanistan

Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990. Health sector employment is taken from WHO, 1993 and refers to the years 1989-1991. Employment is broken down as follows: 2,233 doctors, 267 dentists, 1,451 nurses, and 338 midwives.

Bangladesh

Unemployment is taken from CIA Factbook and relates to 1993. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1990. Data on Central Government employment, education, health and armed forces are taken from Syed Nizamuddin (SA1BG) paper entitled : A Review of the wage and non-wage composition of the recurrent Budget: Problems and issues in Government manpower and compensation policy (...) of February 27, 1996 and relate to 1992. Education corresponds to staff and officers of Education department, the bulk of which are primary education teachers. Health employment corresponds to staff and officers of Health and Family Welfare (91,573) and Public Health (4732) Employment in State-owned enterprises is taken from the Public Expenditure Review of July 31, 1996 and refer to 1996. Military employment data do not include personnel in paramilitary units, e.g., the Bangladesh Rifles (the border guard -- 30,000 personnel), the armed police (5,000) and the Ansars (security guards -- 20,000).

GDP estimate is from World Tables 1995 and relates to 1992. Wage bill estimate is from Syed Nizamuddin, (SA1CO) paper of February 27, 1996 A Review of the Wage and non Wage composition of the Recurrent Budget and relates to 1992. Average Government wage is taken from the same report and relates to 1992.

Cambodia

Military employment include provincial forces (estimated at 50,000 personnel).

China

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994 and source IV: *Official estimates*. It probably underestimates the level of unemployment. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993.

Data on Central, Non Central, Education and health employment are taken from Maurice Gervais (ASTTP) draft Report on the Public Administration (March 1996) and relates to 1994. Non Central Government employment includes employees of Provinces, Prefectures, Townships and Counties as well as districts and village/urban neighborhood committees. Education and Health services are delivered through a network on Non Profit Organizations, which remain part of the public administration and is in part financed by the budget. Data on State Owned enterprise includes employment in Collective Owned enterprises. Military employment data include conscripts (estimated at 1,275,000 personnel) but do not include paramilitary forces (i.e. the People's Armed Police, under the control of the Ministry of Defense, estimated at 600,000).

GDP, Government wage bill and Average wage rate estimate are from Maurice Gervais' draft Report on Public Administration of 30 March, 1996 and are for 1994. Data on wages in manufacturing (monthly basis) are taken from the United Nations' Statistical Yearbook for Asia and the Pacific 1995 and refer to 1992.

Fiji

Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1994.

Central and Non Central Government and State Owned enterprise employment comes from IMF Report No SM/94/280 and refers to 1994 and includes both wage and salary earners.

India

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1989. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1992 and source III, Code 2: *employment office statistics* and include persons in employment who are seeking a change of job or extra work and are therefore also registered at employment offices.

Data on Central Government employment is from IMF Report No. SM/96/260 of October 1996 and relates to Budget 1996/97. Data on non-central government employment is a staff estimate based on data provided by Cristina Almero-Siochi (SA2CI) after consultation of RBI Report on Currency and Finance, 1994, (and relating to 1990) Health employment comes from WHO, 1993 and refers to 1990. The composition is 330,630 doctors, 9,796 dentists, 245,405 nurses and 132, 923 midwives. Education employment is taken from the UNESCO Statistical Yearbook 1995 and relates to 1990. Military employment do not include people currently assigned to paramilitary units (over 1,000,000 men), i.e. National Security Guards (counter-terrorism/insurgency unit -- 7,500 men), Central Reserve Police Force (120,000), State Armed Police (400,000), Border Security Force (185,000), Assam Rifles (under the Ministry of Home Affairs -- 52,000), Indo-Tibetan Border Police (35,000), Special Frontier Force (10,000), National Rifles (under Ministry of Defense -- 30,000), Central Industrial Security Force (under Ministry of Home Affairs -- 90,000), Defense Security Corps (provides security at Ministry of Defense sites -- 31,000), Railway Protection Force (70,000) and Home Guards (472,000).

GDP estimate is from World Table 1995 and refers to 1992. Consolidated Central Government wages and salaries are for 1994 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) are taken from the United Nations' Statistical Yearbook for Asia and the Pacific 1995 and refer to 1989.

Indonesia

Unemployment is taken from CIA Factbook and refers to 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Data on Central and local Government are taken from Indonesia - Civil Service Issues (Confidential draft of October 21, 1993), received from David Steedman (ASTTP) and relate to 1992: "Whether the military is included in the number of CS or not is not clear. It should be noted however that a substantial number of CS slots are filled by the military and it is seriously hampering satisfactory career development for civilians. For our purposes, we will deduct armed forces, but risk undercounting Civilian CS." Of the 3.4 million central government employees, all but about 0.5 millions were seconded to the regions." Education and Health employment are from the same report and relate to 1992. Military employment do not include the paramilitary forces, i.e. the Police (174,000 people), the Kamra (people's security -- part-time police auxiliary).

Wages bill of Consolidated Central Government and GDP estimates are from IMF Government Finance Statistics Yearbook, 1995 and are for 1993. Data on wages in manufacturing (monthly basis) are taken from the Statistical Yearbook of Indonesia 1993 and refer to 1991.

Kiribati

Population figures are drawn from the World Bank's Social Indicators of Development 1996 and refer to 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1990.

General Government employment is from IMF Report No. SM/95/277 and relates to 1995.

Korea

Unemployment figures come from the CIA Factbook 1995 and relate to November 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Health sector employment comes from WHO, 1993 and refers to 1989. It is broken down as follows: 35,462 doctors, 29,368 dentists, and 28,103 nurses and forms part of Central Government. Central Government, Local Government and Education figures have been provided by the Korean Information Center of the Embassy of Korea. Data reflect situation as of 12-31-95. Central Government employment includes 278,837 central government employees, 3,040 legislative branch, 10,475 judicial branch and 2,113 others. Education employment in our data corresponds to the category: Public School Teacher (279,652). They are paid by the central government. Military employment data include conscripts, but not paramilitary forces, e.g., Civilian Defense Corps (3,500,000), or the Coast Guard (4,500). Consolidated Central Government wages and salaries and GDP estimate are for 1994, and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) are taken from the Economic Statistical Yearbook 1989 and refer to 1989.

Lao PDR

GDP estimate is for 1993 and is from World Tables 1995. Wage bill and average wage estimate is taken from IMF Report No. SM/95/6 of January 12, 1995 and relates to 1993. Manufacturing wage estimate is from IMF Report No. SM/96/94 and relates to 1993.

Malaysia

Population and labor force figures are drawn from the World Bank's Social Indicators of Development 1996 and refer to 1994. Unemployment rate is taken from IMF Report No. SM/95/236 of September 15, 1995 and relates to 1995. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993. Unemployment figures are from CIA Factbook 1995 and are for 1993.

Central and Local Government employment estimates are from the Malaysia Embassy's information section and relate to 1994. Education employment is taken from UNESCO. Health employment is taken from the Malaysia Health Development project of November 15, 1993 and relates to 1990. It consists of 3,016 doctors (43% of the registered doctors-- according to the report, 56% are in the private sector), 24,364 nurses, and 12,578 assistant nurses. Health is the responsibility of the Federal Government.

GDP and Consolidated Central Government wages and salaries are from IMF Government Finance Statistics Yearbook, 1995 and are for 1994.

Maldives

Data on paid employment in non-agricultural activities are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990. Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990.

Central Government, Education and Health employment is taken from IMF Report No. SM 96/154 of June 26, 1994 and relates to 1995. Note that expatriate workers (2,023 people in 1995) were subtracted from central government employees.

Marshall Islands

Labor force and population are taken from IMF Report 95/122 of May 26, 1995 and refers to 1994.

Micronesia

Data on paid employment in non-agricultural activities are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990. Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990.

GDP, wages and salaries, and per capita GDP estimate (in US \$) relate to 1994 and are taken from IMF Report No. SM/96/206 of August 6, 1996.

Mongolia

Data on paid employment in non-agricultural activities are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1993. Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1993.

Military employment data include conscripts (estimated at 12,350).

Myanmar

Data on paid employment in non agricultural activities is taken from the ILO's Yearbook of Labor Statistics 1995 and is for 1994. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1994 and source III, Code 1: *Employment office statistics* and do not include persons who are already in employment.

Central Government employment is taken from IMF Report No. SM/95/270 of October 16, 1995 and relates to 199/95. Data includes representative bodies and excludes casual labor. Local Government employment, exclude

larger municipalities such as Yangon and Mandalay which were granted budgetary autonomy. Estimate of employment in these cities is approximately 17,000 people. Military employment data do not include people assigned in paramilitary units, e.g., the People's Police Force (50,000 people), the People's Militia (35,000), and the People's Pearl and Fishery Ministry.

Wages and Salaries of Union Government (Central Government) are from IMF Report No. SM/95/270 of October 16, 1995 and refer to 1993.

Nepal

Military employment data do not include paramilitary personnel, e.g., the police force (28,000 people).

Pakistan

Unemployment rate is from CIA Factbook 1995 and relates to 1990/91. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central, Non-Central, Education and Health employment estimates are taken from Public Expenditure Review of October 30, 1992 and relate to 1990. Military employment data do not include paramilitary units, e.g., the National Guard (185,000 people), the Frontier Corps and the Pakistan Rangers, under the control of the Ministry of the Interior (35,000 people for each of these two corps), the Maritime Security Agency and the Coast Guard.

Data on wages and salaries for Central Government (in this case, the federal Government) are taken from the Public Expenditure Review of October 30, 1992 and relate to 1990. GDP at market price estimate is from the Government of Pakistan's Economic Survey, 1995-1996 and relates to 1990.

Philippines

Population and Labor Force drawn from Public Expenditure Management for Sustained and Equitable Growth (pg. 56) and refer to 1995. Unemployment figure, for 1994, is from CIA Factbook 1995. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and is for 1990.

Local Government figures are from Civil Service Reform in the Philippines (David Stiedman), p. 44, and data are for December 31, 1994. It includes permanent and non-permanent staff. Health figure includes both those personnel still working for the National Government in Health and also those devolved to local governments. Military employment data do not include personnel enrolled in paramilitary units, e.g., Philippine National Police (40,500), whose responsibility is divided between Local Government and the Ministry of Interior, the Coast Guard (2,000) and the Citizen Armed Force Geographical units (CAFGU), a part-time militia which can be called up for extended periods (60,000).

GDP and Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing is taken from the United Nations' Statistical Yearbook for Asia and the Pacific 1995 and refer to 1990.

Singapore

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Numbers relating to Central, Local, Education and Health employment are drawn from Singapore Statistical Office web page, off the Internet, and relate to 1994. Military employment data include conscripts (33,800).

GDP and Consolidated Central Government wages and salaries are for 1992 and are taken from IMF Government Finance Statistics Yearbook, 1995.

Solomon Islands

GDP is from the UN Statistical Yearbook for Asia and the Pacific, 1995 and is for 1991. Wages and Salaries of Consolidated Central Government are from IMF Government Finance Statistics Yearbook 1995 and are for 1991.

Sri Lanka

Data on unemployment rate and number of unemployed people are drawn from Unemployment in Sri Lanka: sources and solutions, IDP 154 of 07/01/95 and relate to 1993. Population refers to all 9 provinces, while labor force, employment and unemployment do not include the Northern and Eastern provinces. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central government, Non central government, Education and Health employment are taken from the Public Expenditure Review of December 22, 1993 and relate to 1992. Several Central government agencies under the Ministry of Education and Cultural Affairs are responsible for formulating general education policy and some aspect of administration. Since 1987, however, most of the administration of the education system has been delegated to the Provincial Directorates of Education which set and implement provincial policies within national guidelines. A large proportion of provincial expenditures is for the salaries of teaching and non-teaching staff. Accordingly education employment is subtracted to non-central government category. Provincial administrations are financed through a Block Grant that the Central Government gives to Provincial Governments.

Higher education is financed through a Central Government annual Block grant to cover about 95% of recurrent and capital allocations. Since 1990, health services have also been decentralized. They are also being financed through block grants of the central government; they are, however, under the institutional authority of the provincial governments. Military employment data include recalled reservists, but do not include paramilitary units, such

as the Police Force, under the control of the Ministry of Defense (80,000), the National Guard (15,000), and the Home Guard (15,200).

GDP and Consolidated Central Government wages and salaries are for 1994 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) is taken from the United Nations' Statistical Yearbook for Asia and the Pacific 1995 and refer to 1993.

Thailand

Unemployment information is for 1995 and is taken from IMF Report No. SM 96/155 of June 28, 1996 and relates to 1995 (projected). Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central and local government data are staff estimates based on information provided by Embassy of Thailand, several Public Expenditure Reviews and the Country Economist of Thailand, Sudhir Shetty. They are for the year 1992. Data on education and health are taken from UNESCO Yearbook 1995 and WHO Yearbook, 1993 and relate to the year 1993. Military employment data do not include paramilitary forces, e.g., Thahan Phran (18,500), the National Security Volunteer Corps (50,000) the Marine Police and Police Aviation (2,500 and 500 respectively), the Border patrol police (40,000) and the Provincial police (50,000).

GDP estimate is from IMF Report No. 96/83 of August 1996 and relates to fiscal year 1995/96. Wages and salaries are taken from IMF Report No. 96/83 of August 1996 and relate to 1995/96 (projections). Average wages in Manufacturing are taken from IMF Report No. 96/83 of August 1996 and relate to 1995.

Vanuatu

Data on paid employment in non-agricultural activities are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1989. Unemployment data are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1989.

Population estimate is taken from Social Indicators of Development and relates to 1994. Labor force estimate is taken from IMF Staff Country Report No. 06/75 of August 1996.

Vietnam

Data on paid employment in non-agricultural activities are taken from the United Nation's Statistical Yearbook for Asia and the Pacific 1995 and refer to 1993.

Data on Employed Labor Force, Education and Public Health employment are taken from Vietnam: Economic Report on Industrialization and Industrial Policy of October 17, 1995.

Consolidated Central Government wages and salaries are for 1994 and are taken from IMF Research Assistant for Vietnam.

Eastern Europe and Former USSR

Albania

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1991.

Central Government, Non Central Government, Education and Health employment is taken from Country Economic Memorandum (draft) of September 3, 1996 and relates to June 1996. (See Annex 5). Military employment data include 22,800 conscripts, but do not include personnel in paramilitary units, e.g., the Militia (estimated at more than 20,000), under the authority of the Ministry of Interior.

Data on GDP at market prices, as well as Consolidated Central Government wages and salaries, are for 1995 and are taken from IMF memo: Albania: notes on fiscal situation, dated April 3, 1996.

Bulgaria

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government employment is estimated, on the basis of the information on IMF Report No. SM/95/306 of December 11, 1994 and relate to 1993 and the information on the other sectors of government, as the residual government employment. Education and Health employment are from IMF Report No. SM 93/200 and relate to 1992. Local employment comes from Local Governments in the CEE and CIS: an anthology of descriptive papers, 1994, published by the Institute of Local Government and Public Services in Budapest, Hungary. Local data includes 15,967 civil servants employed by municipality mayors' offices and 9,446 civil servants employed by settlements' mayors' offices and relates to 1993. State-owned enterprise employment is taken from IMF Report No. 95/306 of December 11, 1995 and relates to 1994. Military employment data include 51,300 conscripts, about 22,300 centrally controlled. The data do not include personnel of paramilitary units, i.e., the Border guards (12,000), the Security Police (4,000) and the Railway and Construction troops (18,000).

GDP is taken from World Tables 1995 and is an estimate for 1993. Data on Consolidated Central Government employment and salaries is taken from Government Finance Statistics, 1995 and is for 1993. Average Government wage estimate is taken from IMF Report 95/306 of December 11, 1995 and relates to 1993.

Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

Croatia

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1994 and source III, Code 1: Employment office statistics. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1993.

Central government employment includes providers of Social Services and culture, arts and information. It is taken from IMF Report SM/95/199 of August 15, 1995 and relates to 1995. Local Government employment is taken from IMF Report No. SM/95/199 of August 15, 1995 and relates to 1995. Health and Education employment are taken from IMF Report SM/95/199 of August 15, 1995 and relate to 1995. State-owned enterprise employment is taken from IMF Report SM/94/251 Background Notes and Statistical Appendix of September 29, 1994. Military employment data include 65,000 conscripts, but do not include personnel in paramilitary organizations, e.g., the Police (40,000).

GDP data are for 1995 and come from Marcelo Bisogno, Research Assistant for the Croatia country office. Average Government wage estimate and average manufacturing wages are taken from IMF Report No. SM/95/199 of August 15, 1995 and relate to 1994.

Czech Republic

Unemployment rate was taken from the Economist Intelligence Unit 1995-96 (p. 11), and reflects unemployment as of February 1995. Employment data are from the draft paper for the year 1993. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Data on military employment include conscripts (40,400), but exclude personnel of paramilitary units, i.e., the Border Guards (4,000) and the Internal Security Forces.

Federal Republic of Yugoslavia (Serbia and Montenegro)

Data on military employment include conscripts (60,000).

Hungary

Unemployment rate was taken from Economist Intelligence Unit 1995-96 and reflects unemployment as of November 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central and local government, Education and Health are taken from Barbara Nunberg's Administrative Reform in Hungary: The Advanced Transition experience, September 1995 (draft), for the year 1993. Data on military employment include conscripts (47,500), but exclude personnel in paramilitary organizations, i.e., the Border Guards (730), and Internal security forces (police- 1,800).

Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993. Wages and Salaries as percent of GDP and Average Government wages are taken from Barbara Nunberg's report of September 1995 (draft) Administrative Reform in Hungary: The Advanced Transition experience, prepared in conjunction with EMLP's Seminar on State Transformation in the Transition (Salzburg, November 1995).

Data on paid employment in non-agricultural activities are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1992.

Macedonia

Labor force figures are drawn from Economist Intelligence Unit 1995-96 (p. 11). Unemployment rate is taken from Country Economic Memorandum dated 21 June 95. Note that employed labor force includes self-employed. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government, Education and Health employment are taken from Country Economic Memorandum of July 20, 1995 and relates to 1994. The Republican Budget covers the expenditures of central government as well as education and research institutions. The Health care fund covers the financing for the services rendered by autonomously administered health management organizations. Local employment data are from OECD's Local Government in the CEE, and are for 1991. Data on military employment include conscripts (8,000), but exclude personnel in paramilitary organizations, i.e. the Police (7,500).

GDP and wages and salaries data are from Huyen Le, Research Assistant for Southeastern Division II in the IMF and relate to 1994.

Poland

Unemployment rate is drawn from Economist Intelligence Unit 1995-96 (p. 16) and refers to the unemployment level as of March 1995. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Central Government and Health employment figures are drawn from the Public Administration Reform in Transitional economies: Issues in Public Administration Reform in Poland and refer to 1993. Education employment is also taken from the same source, but refers to 1992. Local Government is from Poland Country Office, after consultation with the Polish statistical office and refers to 1994. It includes persons employed by self-governments and those employed by "middle tier governments". Data on military employment include conscripts (158,100), but

exclude personnel in paramilitary units, i.e. Border Guards (16,000), under the authority of the Ministry of the Interior, the Maritime Border Guard and the Prevention Units of the Police.

Wages and salaries of Consolidated Central Government are from IMF Government Finance Statistics Yearbook 1995 and are for 1994. Wages and Salaries as percent of GDP and Average government wages are taken from Barbara Nunberg's report of September 1995 (draft) Administrative Reform in Hungary: The Advanced Transition experience, prepared in conjunction with EMTPM's Seminar on State Transformation in the Transition (Salzburg, November 1995).

Romania

Number of unemployed is drawn from Economist Intelligence Unit 1995-96 (p. 19) and reflects the situation in April 1993. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993.

Central Government employment figures are drawn from State Transformation in the Transition - Barbara Nunberg (p. 22). Education data are from EC1/2HR draft paper on health and education in the ECA and are for the year 1994. Data on military employment includes conscripts (104,700), but excludes personnel in paramilitary units, i.e., Border Guards (22,300), the Gendarmerie (10,000) and the Security Guards (46,800), all under the authority of the Ministry of Interior.

GDP and wages and salaries are taken from IMF Government Finance Statistics Yearbook 1995 and are for 1993.

Data on wages in manufacturing are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Slovakia

Number of unemployed is drawn from Economist Intelligence Unit 1995-96 (p. 41) and reflects the situation in December 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government, education and health employment are taken from IMF Report No. SM 95/206 of August 18, 1995 and relate to 1994. Number of local Government employees is taken from Local Government in the CEE and relates to 1 January, 1994. Of the 43,931 local civil servants, 18,640 are working in the mayors' offices. Data on military employment exclude personnel in paramilitary units, i.e., Border Guards (600), and Internal Security Forces (250).

GDP estimate is taken from World Tables 1995 and is for 1992. Data on Average wages, and on wages in manufacturing are taken from IMF Report No. SM/95/206 and are for 1992. Data on paid employment in non-agricultural activities is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1994.

Slovenia

Labor force and unemployment rate are drawn from Economist Intelligence Unit 1995-96 (p. 42) and reflect the situation in December 1994. Note that employed labor force includes self-employed. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994. Number of unemployed are drawn from Economist Intelligence Unit 1995-96 (pp. 28-32) and 1992.

Data on Central Government, Education and Health employment is taken from IMF Report No. SM/94/189 and relates to 1994. Central Government employment corresponds in reality to "Government Sector" and probably includes local government employment. Data on military employment include conscripts (5,500), but do not include personnel in paramilitary units, i.e. the Police (4,500).

Turkey

Data on Central, Local, Education and Health employment are taken from OECD PUMA: Public Management, OECD Country Profiles, 1992 and relate to 1991. Data on military employment include conscripts (415,200), but exclude personnel in paramilitary units, i.e., Gendarmerie/National Guard (180,000), under the authority of the Ministry of Interior in peace time and the Ministry of Defense in war, and the Coast Guard (2,200).

GDP is taken from World Tables 1995 and relates to 1993. Data on wages in manufacturing (monthly basis) are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993. Data on paid employment in non-agricultural activities is from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1993.

Former Soviet Union

Armenia

Data on paid employment in non-agricultural activities are taken from the Statistical Handbook 1995: States of the Former USSR and are for 1994.

Central Government, Non central government, education and health employment are taken from Armenia: Public Administration draft discussion paper of 24 September 1995 and relates to 1995. Central Government employment includes 90,800 employees of the in law enforcement. Local Government employment data includes 49,281 for the Yerevan City council, and 90,111 Local Councils at employees. Armenian authorities have several discrepant

sources of employment data. Data should therefore be taken with a certain amount of caution. Military employment is taken from the International Institute for Strategic Studies, The Military Balance, 1995/96 and relates to 1996. GDP estimate and Wages and salaries as percent of GDP figures are taken from the IMF Report SM/95/243 of September 20, 1994 and relate to 1993. They are confirmed by Stephen Lister's (EC4C2) draft discussion paper on Public Administration dated 24 September 95. Average wage estimate is also from IMF Report (monthly for 1993). Lister's draft paper indicates that monthly wage must be multiplied by 15 to obtain yearly wage.

Azerbaijan

Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1994.

Government employment, education and Health employment is taken from Statistical Handbook, 1995 States of the Former USSR and relate to 1994. Health employment is also from the same source and corresponds to category "Health care, social security, physical culture and sports" and relates to 1994. Education employment is also from the same source and relates to 1994.

GDP and wages and salaries estimates are from WB's Statistical Handbook 1995: States of the Former USSR, and relate to 1993. Average wage is taken from IMF Report No. SM/94/128 of May 26, 1994 and relates to 1993.

Belarus

Unemployment data are drawn from The Belarussian Labor Market drafted on June 11, 1993 (p. 14). Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central and Local Government employment are staff estimates based on information present in the OECD's Local Governments in the CEE and CIS: an anthology of descriptive papers as well as that present in the IMF Report No. SM/95/194 of August 11, 1995, and relates to 1992. Data on employment in state-owned enterprises are taken from the Statistical Handbook 1995: States of the Former USSR and refer to 1994. Data on military exclude 1,200 Ministry of Defense staff as well as personnel of paramilitary units, i.e., Border Guards (8,000).

GDP and wages and salaries estimates are from WB's Statistical Handbook 1995: States of the Former USSR, and relate to 1992. Average Government wage is also for the same year, from the same source. Data on wages in manufacturing (monthly basis) are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1992.

Estonia

Population, labor force and total employment estimates are from Vera Wilhelm (EC4BS) after consultation with the statistical office and relate to 1995. Unemployment rate is estimated on the basis of the above data and relates to 1995. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government, Non Central Government, Education and Health employment is data is from Vera Wilhelm (EC4BS) and relates to 1995. Non Central Government includes municipalities, lower municipalities. Data on employment in state-owned enterprises are taken from the Statistical Handbook 1995: States of the former USSR and refer to 1991.

Data on military employment includes conscripts (2,650), but excludes personnel in paramilitary units, e.g., Border Guards, who are under the authority of the Ministry of Interior.

GDP and wages and salaries estimates are from WB's Statistical Handbook 1995: States of the Former USSR, and relate to 1993. Average Government wages are taken from IMF Report SM/94/81 of March 29, 1994 and relate to 1993. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Georgia

Unemployment rate reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1993.

Central Government, Non central, Education and Health employment are taken from Georgia: Issues in Government Pay and Employment Reform, based on the findings of a World Bank mission in June 1995 and relates to the situation as of April 01, 1995.

GDP per capita estimate and Average Government wage is taken from IMF study No. EBS/95/151 of September 25, 1995 and refers to 1994. Estimate of wages and salaries as percent of GDP is from the same IMF study and relates to 1994.

Kazakhstan

Unemployment rate reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Central Government, Non Central Government, Education, Health and Armed Forces employment figures are taken from Draft Report 15353-KZ Transition of the State. Data refer to 1994. On the matter of Military employment, total armed forces IIS estimates at 40,000, not including paramilitary units, i.e., the Republican Guard (2,500 people), the Internal Security Troops (20,000), under the control of the Ministry of Interior, and the Border Guards (12,000), under the control of the National Security Committee. The World Bank has a different estimate based on the results of the mission. The authors have preferred to include data from the World Bank mission. However, for the sake of

consistency, we are also mentioning the IISS estimate. The data on the military, should therefore be taken with some caution.

Wages and salaries estimates are from WB's Statistical Handbook 1995: States of the Former USSR, and relate to 1992. GDP data are from Barbara Ossowicka (EC3C1) and relate to 1994. Average Government wage is based on Kazakhstan Economic Trends, 2nd quarter 1996, published by the Government of Kazakhstan's Center for Economic Reforms and relates to 1994. Estimate is an unweighted average of salary for March June and September data provided by the IMF. Government wage bill for 1994 is estimated at 2.8% of GDP. Source: WB Report Kazakhstan: Transition of the State-(draft) February 16, 1995.

Kyrgyzstan

Unemployment rate reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1994.

Data on Kyrgyz Republic are staff estimates based on information for Education and Health employment are taken from IMF Report SM/95/55 and relate to 1995. Central Government employment is a staff estimate based on data found in the same source.

GDP at market prices, wages and salaries are taken from Statistical Handbook 1995: States of the former USSR and relate to 1993. Average Government wages are from IMF Report No. SM/95/55 of March 17, 1995 and relate to 1993.

Latvia

Population and labor force figures are from Vera Wilhelm (EC4BS) after consultation with the Latvia Statistical committee and relate to 1995. Total employment figure is also from Vera Wilhelm and refers to 1995. Unemployment figure is estimated on the basis of the above data. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993.

Data on Central Government employment, Education and Health employment is from Vera Wilhelm after consultation with Statistical Office and relates to 1995. Central Government employment probably also includes local government employment. Data on military employment are taken from the International Institute for Strategic Studies: The Military Balance Survey of 1995-96, and include conscripts, but exclude personnel in paramilitary units, i.e., the Border Guard (4,300) and the Coast Guard.

GDP at market prices and wages and salaries are from Statistical Handbook 1995: States of the former USSR and relate to 1993. Average Government wages is a staff estimate based on figures from IMF Report No. SM/94/158. The IMF Report indicates average quarterly wage. The authors have taken the average of the four estimates for 1993 and multiplied it by 12 (months) to obtain average yearly wage. Data on wages in manufacturing are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Lithuania

Unemployment rate is taken from reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government, Education and Health employment data are taken from the Department of Statistics of the Government of Lithuania (Vera Wilhelm EC4BS and Gediminas Dubauskas provided us with the data) and relates to 1995. Non Central Government employment is taken from the same source and relates to 1995 as well. Estimate includes personnel in municipalities, lower municipalities and police structure. Data on military employment include conscripts, but exclude personnel in paramilitary units, e.g., the Border Guard (4,000).

GDP at market prices is taken from Statistical Handbook 1995: States of the former USSR and relates to 1992.

Wages and salaries are taken from IMF Government Finance Statistics and relate to 1992. Average Government wages are from Statistical Handbook 1995: States of the former USSR and relate to 1992. Data on wages in manufacturing (monthly basis) are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1992.

Moldova

Unemployment rate is taken reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and is for 1994.

Central Government and Local Government employment are taken from the Salvatore Schiavo-Campo's BTOR of May 7, 1996 from the Public Sector Management Mission and refers to 1996. Education and health data is a staff estimate for 1996 based on data available in the Statistical Handbook 1996: States of the Former USSR and information available on Mr. Schiavo-Campo's May 6, 1996 BTOR. Data on military employment include conscripts (11,000), but exclude personnel in paramilitary units, i.e. the Internal Troops (2,500) and the Riot Police (900), both under the authority of the Ministry of Interior.

GDP per capita estimate is from Moldova Country economist Arud Bannerjee. GDP estimate is calculated on the basis of the data mentioned above. Average Central Government wage is taken from BTO Report of May 7, 1996 for Public Sector Management Mission and relate to 1996.

Russian Federation

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Central Government, Non Central Government, Education and Health employment data are drawn from Towards a New Civil Service in Russia: Current Issues and Future Prospects (draft) of September 1995, and relate to 1992.

Data on military employment include conscripts (400,000), but excludes personnel in paramilitary units, i.e., the Frontier Forces (100,000), directly subordinate to the President, the Forces for the Protection of the Russian Federation (20,000), and the MVD (180,000).

GDP estimate is taken from Statistical Handbook 1995: States of the Former USSR and relates to 1992. Wages and salaries as percent of per capita GDP is from Barbara Nunberg's Towards a new Civil Service in Russia, Current Issues and Future Prospects, September 1995 and relates to 1992. The wage bill corresponds to the civilian budgetary sphere wage bill (5.2%) less wages in Health and education (3.5%).

Tajikistan

Unemployment come from the Country Economic Memorandum of August 12, 1994. Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1993.

Data on Central, Education and Health employment is taken from Country Economic Memorandum of August 12, 1994 and relates to 1992. Central Government corresponds to General Administration and defense, to which we have subtracted the number of military. Tajikistan has not yet formed any military units. A number of potential officers are being trained.

Turkmenistan

Unemployment rate reflects only official unemployment for 1994. Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1993.

Central Government employment, which is drawn from Statistical Handbook 1995: States of the Former Soviet Union. Central Government corresponds to "Public Administration and defense". However, it is unclear whether this includes all Central Government employees or just Centrally located Central Government employees. Education and Health employment data are drawn from the Country Economic Memorandum of 7 February, 1994, Education corresponds to "Education Culture and arts" for 1992, while Health is "Health care, social security, physical culture and sports." Military employment data relate to armed forces under joint Turkmen/Russian command.

Ukraine

Unemployment rate is drawn from Economist Intelligence Unit 1995-96. Unemployment reflects only official unemployment for 1995, and probably underestimates the level of unemployment. .

Central Government, Local Government, Education and Health employment data are from Ukraine: Public Expenditure Review- Public Administration and the Civil Service of May 1996 and relate to 1994. Local employment corresponds to "Regional and local administration funded from local budgets" and is for the year 1994.

Education and Health employment is also from the same source and relates to 1994. In Ukraine delivery of these services is done by both State Owned enterprises as well as the government administration. Military employment data do not, include paramilitary troops, e.g., the Internal Security Troops (15,300) and the National Guard (700).

Wages and salaries as percentage of GDP (and therefore GDP estimate), Average wage and average wage as multiple of per capita GDP is taken from EMTPM's David Wood's report of 6/24/96 on Ukraine: Policy notes - Public Administration and the Civil Service and relates to 1994.

Uzbekistan

Unemployment is from IMF Report SM/96/134 of June 12, 1996 and relates to 1995. It lists 187,700 unemployed people, of which 156,700 not officially registered in the unemployment registers of the employment offices. In addition, an estimated 50-60 000 are on forced (unpaid leave) and another million people is considered "disguised unemployment in the agricultural sector. Data on paid employment in non-agricultural activities are taken from Statistical Handbook 1995: States of the Former USSR and are for 1994.

Central Government, Education and Health employment are taken from IMF Report No. 96/134 of June 12, 1996 and relates to 1995. State-owned enterprise employment is an estimated based on data from the Uzbekistan Economic Memorandum of June 20, 1994 and relates to 1992. Military employment data include Ministry of Defense staff and centrally controlled units, but exclude paramilitary units, such as the Internal Security troops (16,000 men under the control of the Ministry of Interior) and the National Guard (700 men under the control of the Ministry of Defense).

GDP estimate is from Statistical Handbook 1995: States of the Former USSR and is for 1994.

Latin America and Caribbean

Antigua & Barbuda

Population and labor force are taken from IMF Report No. SM 96/163 of July 5, 1996 and relates to 1995.

Central Government, Non Central Government employment is taken from IMF Report No. 96/163 of July 5, 1996 and relates to 1994.

Data on GDP at market price as well as Central Government wage bill are from IMF Report SM 96/163 of July 5, 1996 and relate to 1995. Average Government wages and wages and salaries as multiple of per capita GDP are therefore the result of calculations emanating from this data.

Argentina

Unemployment rate is drawn from CIA Factbook 1995 and refers to 1994. Paid employment is non agricultural activities is taken from Anuario Estadístico de la Republica Argentina, 1995 and relates to 1995. Javier Burgueno of Consultorio Burgueño, Pepe & Asociados was also a source of information relating to Argentina.

Central Government Employment data are drawn from Public Sector Reform (Loan 3394-AR) Completion Report of June 29, 1995 and refer to 1993. They include decentralized agencies of the Central Government (76,000 in 1994).

Primary, secondary and technical education are handled at the local level. Public Universities are at the central government level. University Teachers number 100,000 and include both full-time and part-time. In June, universities were given autonomous status within the public sector, and accordingly they became responsible for salaries of professors. It is not clear whether the number of teachers can include them or not.

Local Government employment is taken from IMF Report No. SM/95/248 of September 20, 1995 and relates to 1994. It includes employees of the Provinces and the City of Buenos Aires (1,013), and employees of the Municipalities (348). Health sector employees are taken from WHO, 1993. State-owned enterprise employment is also taken from IMF Report SM/95/248 (see above) and relates to Central Government enterprise employees for 1994. Military employment data include conscripts (18500), but do not include personnel in paramilitary units, e.g., the Gendarmerie (18,000) under the authority of the Ministry of Defense and la Prefectura Naval (13,240).

Data on GDP at market price is a 1993 estimate and is taken from World Tables 1995. Data on wages and salaries of Central Government as percent of GDP is taken from IMF Report SM/94/177 of July 8, 1994 and relates to 1993. GDP per capita, average Government wages, and wages and salaries as multiple of per capita GDP is based upon calculations emanating from this data. Data on wages in manufacturing are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Bahamas

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994 and source I: *Labor force sample surveys* and *General household sample surveys*.

Central Government, Non Central Government, Education and Health employment are taken from IMF Report No. 96/244 and relates to 1995. Police Force is estimated at 1200.

GDP at market prices and wages bill estimates are taken from IMF Report No. SM/96/244 of September 27, 1996 and relates to 1994. GDP per capita, Government average wages and wages and salaries as multiple of per capita GDP are based on calculations emanating from this data.

Barbados

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994 and source I: *Labor force sample surveys* and *General household sample surveys*.

Data on Central Government Employment, Education and Health employment are taken from Republic of Barbados Ministry of Finance and Public Service Commission data and relate to 1995. Local Government in Barbados is non-existent. Employment in State-owned enterprises is taken from WB Report No. 15185 CRG Public Sector Modernization in the Caribbean.

GDP per capita, Government average wages and wages and salaries as multiple of per capita GDP are based on calculations emanating from this data.

Belize

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1994 and source I: *Labor force sample surveys* and *General household sample surveys*.

General Government employment is taken from information provided by Public Sector Modernization in the Caribbean.

Bermuda

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1991 and source III, Code 1: *Employment office statistics* and do not include persons who are already in employment.

Bolivia

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Data relating to Central Government employment are drawn from AR on Civil Service Reform project and relate to 1993. Central Government employment figure is broken down into 117,596 permanent employees, 16,642 temporaries and 1,180 consultants (line positions financed under International Cooperation projects). Central Government entails Central Ministerial departments and local administration extensions. Central Government employment does not include teachers (numbering about 80,000) but includes health workers and decentralized institutions which fall under the jurisdiction of sectoral ministries. We have not been able to estimate the number of these employees. Health employment is taken from Luis Pisani, Head of the Social sector unit in the WB's La Paz Resident mission and relates to 1994/95. The data includes medical employees in both the Secreteria Nacional de Salud and the Caja nacional de salud (which is the social security scheme which covers public sector employees).

The former accounts for 10,223 employees, of which 369 at the central level and the rest at the local level. The latter accounts for 11,371 medical employees, all of which are local and of which 1,077 are contractual employees. Military employment data include conscripts (20,000), but do not, however, include personnel in paramilitary units, e.g., National Police (30,000 est.) and the Narcotics police (600). Data on GDP at market prices is a 1993 estimate and is taken from World Tables 1995. Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing are from IMF Report No. SM/96/61 and relates to March 12, 1996.

Brazil

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Military employment data include conscripts (132,000), but do not include personnel in paramilitary units, e.g., Public Security Forces (385,600), which are the state Military Police organizations (State Militias), under Army control and considered Army Reserve.

Chile

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Data for central and non-central government and health are from Gary Reid (LA3PS). "Civil Service Reform in Latin America: Lessons from Experience" and refers to 1990. Education employment has been essentially decentralized. Government finances education through system of vouchers which are given to public education teachers as well as teachers from some private institutions. Education figure, accordingly, is very small. Health employment is also a decentralized activity and offloaded to Local Governments. State owned enterprise employment is also from the above mentioned study and relate to 1991. Military employment data include conscripts (31,000), but do not include personnel in paramilitary organizations, i.e. Carabineros (31,000).

Data on GDP at market prices is a 1993 estimate and is taken from World Tables 1995. Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Colombia

Unemployment rate is drawn from CIA Factbook 1995 and refers to 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Data on Central, Non central government and education employment are from Departamento Administrativo del Servicio Publico, Contralria General de la Republica, Departamento nacional de Estadistica and relate to 1996.

Education employment corresponds to "teaching personnel" category only and does not include personnel employed in " Fondos Educativos Regionales" (10,496) and in the "Planta descentralizada" (10,627). Health Sector employment is taken from Municipal Health Services Project Staff Appraisal Report dated May 14, 1993. The data only relates to Public Sector data (p. 4 para 1.9, indicates that the ratios in Public Health service are 1.3 for nurses, 12 for nurse assistants, 3.8 for promoters and 2.5 for doctors). This equates to 4,508 nurses, 42,818 nurses' assistants, 13,554 promoters and 8,921 doctors. The Ministry of Health, along with the National Planning Department, is responsible for guiding health sector policy, for providing administration support for lower administrative levels of the system and for evaluating and monitoring performance. Colombia is decentralizing management and fiscal responsibility for public sector programs to the country's 33 departments and 1,029 municipalities. Military employment data include conscripts (67,300), but do not include personnel in paramilitary organizations, e.g., National Police Force (87,000) and the Coast Guard.

Data on GDP at market prices is a 1993 estimate and is taken from World Tables 1995. Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995.

Costa Rica

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

General Government employment is taken from the IMF Report No. SM/96/124 of May 31, 1996 and relates to 1995. Costa Rica is forbidden by its Constitution to have Armed Forces. Paramilitary units, i.e., the Rural Guard (3,200), under the authority of the Ministry of Government and Police, and the Civil Guard (4,300) do, however, exist to ensure internal security.

Dominican Republic

General Government employment and State-owned enterprise employment are taken from Public Sector Modernization in the Caribbean. Military employment data do not include Paramilitary units, e.g., the National Police (15,000).

Ecuador

Unemployment data are drawn from CIA Factbook 1995 and relate to 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government employment figures are drawn from Modernization of the State Technical Assistance Project of 21 November, 1994. In Ecuador, Education is considered one of the primary responsibilities of the Central Government. The sector is highly centralized. However, post-secondary education is managed by an autonomous agency (CONUEP) and Vocational education under (SECAP). The Health data comes from the Second Social Development Project Staff Appraisal Report of June 29, 1992, which indicates that the total staff of the Ministry of Health is 30,000, of whom 8,000 are doctors.

Consolidated Central Government wages and salaries are for 1994 and are taken from IMF Government Finance Statistics, 1995. Data on wages in manufacturing are from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

El Salvador

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1992 and source I: *Labor force sample surveys* and *General household sample surveys*.

Central Government and Local Government employment is taken from document provided by Country Team for El Salvador (Jorge Shepherd- (LADCN) and relate to 1995. Central Government employment includes personnel of ministries (except for education and health--see notes below) plus personnel of Procuraduria General, Banco Central de Reserva, Cortes de Cuentas, Fiscalia General, Fondo de Inversion Social (in total 2,865 employees).

Education employment is taken from the same document, which indicates that Ministry of Education staff is 38677, of which 32570 are teachers. According to our definition we only included teachers in the education category. The remaining other personnel was included in the central government category. Health employment data is taken from the same document. However, it indicates that 21,455 people work in the Ministry of Health, of which only 6,244 are doctors and paramedics. Since this proportion of supposed administrative to medical staff seems somewhat excessive, it is possible that some additional medical staff could be in this category. We have decided to include all 21,455 employees in the health employment category, conscious that this might be overestimating somewhat medical staff. This figure should therefore, be treated with some caution. Employment in State Owned enterprises, accounts for 11,071 people. Military employment data do not include personnel in paramilitary units, e.g., the National Civilian Police (8,000).

Data on GDP at market prices is from IMF Government Finance Statistics and is for 1994. Average Public Sector wage corresponds to Average wage of Consolidated Central Government, is taken from IMF Country Report No. 96/39 of May 1996 and relates to 1994. Manufacturing wage is also taken from IMF Staff Background Country Report of May 1996 and relates to 1994.

Guatemala

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1991 and source III, Code 1: *Employment office statistics* and do not include persons who are already in employment.

Military employment data include conscripts, but do not include personnel in paramilitary units, i.e., the National Police (9,800), the Treasury Police (2,500), and the Territorial Militia (300,000).

Guyana

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995, refer to 1993 and source III, Code 2: *Employment office statistics* and include persons in employment who are seeking a change of job or extra work and are therefore also registered at employment offices.

Central Government employment data are taken from IMF Report No. SM/95/132 and relates to 1995. Non Central Government, Education and Health employment are taken from Guyana Public Sector Review of May 17, 1993 and relate to 1992. Both Education and Health employment are responsibility of Regional Administrations. State-owned enterprise employment is taken from IMF Report No. SM/95/132 and relates to 1995. Military employment data do not include personnel in paramilitary units, i.e., the Guyana People's Militia (1,500).

Consolidated Central Government wages and salaries is from IMF Report No. SM/96/241 of September 24, 1996 and relates to 1993.

Honduras

Unemployment data are drawn from CIA Factbook 1995 and relate to 1992. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Data relating to Central Government Employment is drawn from Country Economic Memorandum/PA of November 17, 1994 (A-3). Central Government employment does not include military or military police. Data relating to education (teachers), military and local government are from Public Sector Modernization Technical Assistance credit (PSMTAC) of January 19, 1996. Data on military employment include conscripts (13,200), but do not include personnel in paramilitary units, i.e., the Public Security Forces (5,500), under the authority of the Ministry of Public Security and Defense.

Wages and salaries as percent of GDP is taken from WB Report No. T-6740-HO of January 19, 1996 --Technical Annex for Public Sector Modernization Technical Assistance Credit.

Jamaica

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1991.

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1992 and source I: *Labor force sample surveys* and *General household sample surveys*.

Mexico

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993. Unemployment data are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993 and source I: *Labor force sample surveys* and *General household sample surveys*.

Nicaragua

Unemployment Data are drawn from Country Economic Memorandum for 1992. The figure relates to official unemployment; it may, however, underestimate the actual unemployment since it does not take into account underemployment and informal sector employment. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1992.

Central Government, Education and Health employment figures are drawn from the Nicaragua Civil Service Diagnostic Review of September 19, 1994 and relates to 1994.

Data on GDP at market prices is a 1993 estimate and is taken from World Tables 1995.

Consolidated Central Government wages and salaries are from 1994 and is taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1992.

Paraguay

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Data on military employment include conscripts (12,900), but do not include personnel in paramilitary units, i.e., the Special Police Service (8,000).

Peru

All available data are drawn from Public Expenditure Review. Data on military include conscripts (65,500), but do not include personnel in paramilitary units, i.e., the National Police (60,000), the Coast Guards (600), and the Rondas Campesinas (2,000, est), which is a peasant self-defense force deployed mainly in emergency zone.

Suriname

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1993 and source I: *Labor force sample surveys* and *General household sample surveys*.

Trinidad and Tobago

Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1993. Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1993 and source I: *Labor force sample surveys* and *General household sample surveys*.

Data on military employment do not include personnel in paramilitary units, i.e. the Police force (4,800). Employment in State-owned enterprises is taken from IMF Staff Country Report No. 96/50 - Statistical Appendix of June 1996 and relates to 1993.

Uruguay

Unemployment data are drawn from CIA Factbook 1995 and relate to 1994. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1994.

Central Government, Non Central Government, Education and Health employment data are from information made available by Uruguay Country Economist and relate to 1993. Employment in State-owned enterprise is from the same source and relates to 1993 as well.

Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1993.

Venezuela

Unemployment data are taken from the ILO's Yearbook of Labor Statistics 1995 and refer to 1993 and source I: *Labor force sample surveys* and *General household sample surveys*. Data on paid employment in non-agricultural activities are taken from the ILO's Yearbook of Labor Statistics 1995 and are for 1990.

Data on GDP at market price, and wages and salaries of Consolidated Central Government are taken from IMF Government Finance Statistics and relate to 1994.

Middle East and North Africa

Algeria

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1987.

Central Government employment figures do not include Defense data or social security. They are drawn from B. Pecheur's report (draft 09/05/95). Central Government is defined as Central Government excluding local government, PTT personnel, career armed forces and judiciary. Military includes 90,000 conscripts. Data on Health workers are taken from a May 17, 1995 IMF Algeria Background paper by E. Bell and Feler (p. 19), which specifies that health workers are 0.64% of population (.64 per 100 inhabitants) for the year 1994. It does not include a number of health workers who are under contract or work for semi-autonomous hospitals (32). In Algeria, education is the sole responsibility of the central government and private education is illegal. Employment in State-owned enterprises is taken from IMF Report SM/96/135 Selected Economic Issues, dated June 13, 1996. Military employment data include 90,000 conscripts, but do not include paramilitary units, such as the Gendarmerie, (24,000), the National Security Forces (16,000), both under the command of the Ministry of Interior and the Republican Guard (1,200).

Wages and Salaries are taken from IMF Report No. 95/108 of May 17, 1995 and relate to 1994.

In Algeria, Education and Health are the sole responsibility of the Central Government. Accordingly, the data on Consolidated Central Government employment is inclusive of Education and Health employment.

Data on wages in manufacturing (monthly basis) are taken from a report from the Algerian National Statistical Office in Algeria: "Les Salaires Bruts Moyens en Algerie" and refer to 1993.

Bahrain

Central Government employment, education and health employment are taken from IMF Report SM 94/85 of April 1, 1994 and relate to 1993. There is no local Government structure in Bahrain. Source: Mr. Buhiji of the Embassy of Bahrain.

GDP at market prices, Average Government wage and wage bill are taken from IMF Report SM/96/39 of February 12, 1996 and relates to 1995. All other data stems from this data.

Egypt

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992.

Central Government, Non-Central Government, and employment in State-owned enterprises are taken from IMF Report No. SM 95/226 of September 6, 1995 and relate to FY 1993/94. Education employment data are taken from EMTHR (John Evans mission of September 1995) and are for 1994-95. The data reflect the number of "Full time equivalent" teachers in the primary, secondary and university sectors. It does not include University teachers. In addition it does not reflect the official Egyptian definition of teachers. Teachers are under Governorate jurisdiction in Egypt; however, the system remains highly centralized. Accordingly, they have been included in central government employment. Health employment is a WB Staff estimate. Military employment data include conscripts (222,000), but do not include paramilitary units, i.e., the Coast Guards (2,000), the Central Security Forces (60,000) under the authority of the Ministry of Interior, and the Border Guard forces (12,000).

GDP at market price is taken from World Tables 1995 and refers to 1994 (estimate). Data on wages and salaries of Consolidated Central Government is taken from the IMF's Report No. SM/95/226 of September 6, 1995.

Jordan

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Central Government Education and Health employment estimates are taken from Barbara Nunberg's Aide Memoire on Jordan dated December 1994. Non central Government employment represents a staff estimate for 1996 based on data taken from WB report on Local government finance sector study of April 20, 1990..

Military employment data do not include personnel of paramilitary units, i.e., the Public Security Directorate (10,000) under the authority of the Ministry of Interior, and the Civil Militia People's Army (200,000).

GDP at market price, and data on wages and salaries of Consolidated Central Government are taken from Government Finance Statistics and relate to 1993. In Jordan, Consolidated Central Government includes Education and Health services. Accordingly, employment figure includes Education and Health employment. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Lebanon

Civil Service numbers only refer to currently filled Civil Administration employees for 1994. In total, there were 110,000 people on the government payroll. Non central Government employment comes from the same source as above and relates to 1992. Teachers' data were taken from the Administrative Rehabilitation Project, Technical Annex of June 5, 1995. The note mentions 32,000 teachers. Health Sector employment data are taken from Annex 3 of the note based on a report prepared for the World Bank by Cristian de Clerq of the UNARDOL. It states that as of 1992, the Ministry of Health and Social Affairs employed 2,984 employees. NGOs employ four times as many people, or about 6,880 people, in the sector. Military employment data do not include paramilitary units, i.e., the Internal Security Force (13,000), under the authority of the Ministry of Interior.

ALTHOUGH RELIABLE DATA ARE AVAILABLE FOR BOTH EMPLOYMENT AND WAGES, LEBANON IS NOT INCLUDED IN THE REGIONAL AVERAGES SHOWN IN THE TEXT TABLES BECAUSE ITS UNIQUE SITUATION, COMBINED WITH A RELATIVELY SMALL NUMBER OF COUNTRIES IN THE MENA REGION, WOULD MAKE SUCH INCLUSION HIGHLY MISLEADING.

Data on wages and salaries is taken from EMTPM Background paper in EMTPM files and relates to 1991. In Lebanon, consolidated Central Government includes education and Health services. Accordingly employment figure includes education and Health employment.

Morocco

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Central Government, Education and Health employment are taken from Note on Public Administration as of December 1995 and refer to 1995. Non central government is taken from Morocco Public Expenditure Review of August 30, 1994 and relates to 1993. Military employment data include conscripts (100,000), but do not include personnel of paramilitary units, i.e., Gendarmerie Royale (12,000), the Force auxiliaire (30,000), and the Customs/Coast Guard.

Average wage estimate comes from Anne Marie Leroy's report "La Fonction Publique Marocaine au 1er Decembre 1995: Constats et elements de reforme". Data on wages in manufacturing (monthly basis) is taken from a World Bank Report "Kingdom of Morocco: Country Economic Memorandum: Towards a Higher Growth and Employment" and refers to 1995.

Syria

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1991.

Education, Health, Central Government estimates are taken from Algerian Background report and are for 1992 (see reference for Algeria). Non Central government in Syria is based on a staff estimate. Military employment data do not include paramilitary personnel, i.e., Gendarmerie (8,000), and the Ba'th Party Workers Militia.

GDP, and data on Consolidated Central Government wages and salaries are taken from IMF Senior economist from Syria Leigh Alexander and refer to 1994.

Tunisia

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1989.

Data relating to Central Government employment is taken from République Tunisienne: Enjeux de la réforme de la fonction publique written by Maria Pigato (MN1CO) in June 1995 and relates to the year 1994. Education and Health data are taken from the IMF Algerian Background paper. Health does not include persons working in Hospitals and other PSE. Local Government data are also taken from Miria Pigato and are only restricted to communes. Military employment data are taken from International Institute for Strategic Studies: The Military Balance Survey of 1995-96. Data include conscripts (26,400), but do not include paramilitary, i.e., Police (13,000), and National Guard (10,000).

Data on average wages in the Central Government is taken from Republique Tunisienne: Enjeux de la reforme de la fonction publique of June 1995 (non official working document) which states that " average central government salaries are three times per capita GDP".

West Bank/Gaza

Data on population and labor force are from the Civil Service Review mission of January, 1996 (EMTPM, DP).

The unemployment figure is found by taking the weighted average of unemployment rates in West Bank and Gaza. All statistical data exclude the population of East Jerusalem.

All numbers relating to Central Government employment are drawn from the Civil Service Study of June 1996. Of this number, 934 are daily workers and relate to 1995 levels. Data on civil service employees include 25,000 police force. Data on Health employment include 673 daily workers and are from 1996 Civil Service Review Mission, Aide Memoire. Data on Education include 323 daily workers. All statistical data exclude the population of East Jerusalem.

Estimates of GDP at market prices are taken from Country Office and are for 1995. Average monthly net pay (excluding non-wage payments) for permanent employees is estimated at NIS 1360 as of October 1995.

Yemen

Unemployment rates estimated at 25-30% for the years 1991-93 (Country Assistance Strategy, September 1995).

Central Government employment figures are taken from S. Schiavo-Campo's Note on Civil Service and Administrative Reform in Yemen and are for 1996. Education Employment data are taken from Education Sector Investment Project of February 01, 1994. Health employment data is from Gail Richardson (MN2HR) after consultation of Project Implementation Unit data in Yemen. Military employment data include conscripts (25,000 est.), but do not include personnel in paramilitary units, i.e., Ministry of National Security forces (10,000), and tribal levies (20,000 + est.)

GDP at market price is taken from World Tables 1995 and refers to 1993 (estimate).

Data on wages and salaries is taken from EMTPM files (SSC BTOR of 3 February 1995) and relates to 1994.

OECD

Australia

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non central, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to December 1991. In our data, federal employees correspond to central government, whereas non-central government employees include employees of both the state government and of municipalities. Although education and health care in Australia are states' responsibilities, the federal government contributes heavily in providing funding. Accordingly, we have subtracted education and health employees from non-central government employment.

Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1994.

Austria

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Central Government, Non Central Government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. In our data, federal employees correspond to central government, whereas non-central government employees include employees of both the state government and of municipalities. Responsibility for education is shared between the Lander and the federal government. Teachers (for primary and secondary education) are Lander employees but are paid by the federal government. Teachers of general and secondary education are the responsibility of the federal government. According to our definition, therefore, they are considered central government.

Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

Belgium

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992.

Data on Central Government, Non-central Government, Education, Health and State-owned enterprise employment are taken from IMF Report No. SM/94/289 of December 7, 1994 and relate to 1/1/ 94. In Belgium, education is exclusively the right of non-central government. Health services responsibilities are shared between the central government and the communities.

Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Canada

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central and Non Central Government employment are taken from IMF Report No. SM/95/62 of April 7, 1995 and relate to 1994. In our data, federal employees correspond to central government, whereas non-central government employees include employees of both the county governments and of municipalities. Data on Education and Health employment are from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Responsibility for education is essentially with the county government. The federal government contributes financially, but salaries are paid by the provincial government. Health services are also mainly the responsibility of non-central government. Data on State-owned enterprises are also from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Military employment data exclude personnel of paramilitary units, i.e., the Coast Guard (5,200).

Consolidated Central Government wages and salaries are for 1991 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1993.

Denmark

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non central Government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Responsibility for education is shared between three levels of government. Primary schooling is assigned to municipalities, secondary schools are funded by the counties, whereas the central government is responsible for the higher education. Vocational training is also funded by the central government. Health care is exclusively the responsibility of non-central government.

Data on military employment are taken from the International Institute for Strategic Studies: The Military Balance Survey of 1995-96. Data include conscripts (8,300), but exclude personnel of paramilitary units.

consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1992.

Finland

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1991. Responsibility for education is shared between the central government and the municipalities, with the states contributing to the finance of approximately 70% of running costs. Higher education is financed by the central government. Vocational training is also funded by the central government. Health care is largely the responsibility of local government. Data on military employment are taken from the International Institute for Strategic Studies: The Military Balance Survey of 1995-96. Data include conscripts (23,900), but do not include personnel of paramilitary units, i.e., the Frontier Guard (3,500), under the authority of the Ministry of the Interior.

Data on wages in manufacturing (monthly basis) is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1993.

France

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non Central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1989. Responsibility for education is shared between the central government, the departments and the municipalities. However, the central government pays for the salaries of all teachers employed in public schools. Health care is largely the responsibility of the central government. Data on military employment are taken from the International Institute for Strategic Studies: The Military Balance Survey of 1995-96. Data include conscripts (189,200), but exclude personnel in paramilitary units, i.e., Federal Border Guard (24,500), under the authority of the Ministry of Interior, and the Coast Guard.

Germany

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Greece

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Public education and health are solely the responsibility of the central government. Military employment data include conscripts (114,000), but exclude personnel in paramilitary units, i.e., Gendarmerie (26,500) and the Coast Guard and Customs (4,000).

Data on wages in manufacturing is taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refers to 1994.

Ireland

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1991. Public education is the responsibility of the central government. University education is subsidized by the central government, but funds are channeled through the department of education to an autonomous Higher Education authority. Vocational education is managed at the county level. Health services are under the responsibility of health boards which administer them on a regional basis and are responsible for the implementation of a large element of government health policy. Most of their expenditures are financed however by the central government.

Italy

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1989. Public education at the primary and secondary level is the responsibility of the central government, which recruits, pays and assigns all teachers. Universities have autonomous status and are self-governing. The central administration still recruits and provides almost all funding for staff salaries. University education is subsidized by the central government, but funds are channeled through the Department of Education to an autonomous Higher Education authority. Vocational education is managed at the county level. Health services are financed by the National Health Fund which is made up of compulsory contributions by employers, employees and self-employed, plus an allocation from the national budget. Central government establishes health spending targets, but employees are paid directly by the National Health Service. Information on military employment include conscripts (174,700), but exclude personnel in paramilitary

units, i.e., Carabinieri (93,400) and the Public Security Guard (80,400), both under the authority of the Ministry of Defense, as well as the Finance Guard (64,100), under the authority of the Treasury Department and the Harbor Control.

Japan

Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1991. Public education and health are the responsibility of non-central government. Military employment data include Central Staffs.

Netherlands

Unemployment rate is taken from OECD Economies at a Glance - Structural Indicators, 1996 and relates to 1994. Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Central Government and Non central employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Public education provides for 28% of school-aged children, while private education provides for the rest. The central government finances almost totally private institutions, but is not directly responsible for the salaries of the teachers. Accordingly they are not included among the education employment data. Health services are provided jointly by the voluntary social networks, professional services, insurance organizations and the government at national and subnational levels. It has therefore never developed into a hierarchical organization in which professional services are managed and paid for by the government. For this reason, it has not been possible to obtain and include any reliable figure on health employment.

New Zealand

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Central, Non Central Government and Education employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1992. Note that Education employment figure includes health workers. Primary and secondary education is managed by community-elected boards of trustees and financed by block grants provided by the central government. Public Health services are funded by general taxation through the Department of Health, which distributes them to a wide range of practitioners, administrative organizations and others providing publicly funded services. Reform of the system, however, is being contemplated.

Norway

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Public education responsibilities are shared among different levels of government. Primary schools and lower secondary are the responsibility of the municipalities. The central government, however, is in charge of upper secondary and higher education. Health care is run by municipalities and counties, but funded through block grants by central government, as well as through the municipalities' own revenue.

Portugal

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1989. Public education and health are the responsibility of non-central government. Military employment data include conscripts (17,600), but exclude personnel in paramilitary units, i.e., the National Republican Guard (20,900), the Public Security Police (20,000), and the Border Security Guard (8,900).

Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Spain

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Public education and health are the responsibility of non-central government. Military employment data include conscripts (126,000), but exclude personnel in paramilitary units, i.e., Guardia Civil (75,000), and la Guardia Civil del Mar (550).

Average Government wages is taken from Trends in Public Sector Pay in OECD Countries, 1995 edition and relates to 1993.

Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

Sweden

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1990. Public education and health are the responsibility of non-central government. Military employment data include conscripts (31,600), but exclude personnel in paramilitary units, e.g., Coast Guards, Civil Defense and Voluntary Auxiliary organizations.

GDP at market prices are from IMF Government Finance Statistics Yearbook, 1995 and relate to 1994. Consolidated Central Government wages and salaries are for 1994 and are taken from IMF Government Finance Statistics Yearbook, 1995.

Data on wages in manufacturing are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1992.

Switzerland

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1985. Public education and health are the responsibility of non-central government. Data on military employment include paramilitary units, e.g., the Border Guard (4,300), and exclude personnel of certain units, e.g., the Civil Defense (480,000).

Data on Wages In Manufacturing (monthly basis) are taken from the International Labor Office's Yearbook Of Labor Statistics 1995 and refer to 1993.

United Kingdom

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1993.

Data on Data on Central Government, Non central government, Education and Health employment are taken from Public Management: OECD Country profiles, OECD 1992 and relate to 1992. Public education is provided by State schools operated by local authorities, a mixed sector which includes church schools with substantial public funding from local authorities, and a small but expanding fee-paying sector. Local education authorities employ teachers as well as administer the schools. Health care is provided by a National Health Service. It employs health employees. Over 80% of health service costs are paid out of general taxation.

Average Government wages is taken from Trends in Public Sector Pay in OECD Countries, 1995 edition and relates to 1993. Consolidated Central Government wages and salaries are for 1993 and are taken from IMF Government Finance Statistics Yearbook, 1995. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1993.

United States

Paid employment in non-agricultural activities is drawn from the ILO's Yearbook of Labor Statistics 1995 and refers to 1994.

Data on Data on Central Government, Non central government, Education and Health employment are from Public Management: OECD Country profiles, OECD 1992 and relate to 1985. Data on military employment include certain paramilitary units, e.g., the Border Guard, and exclude certain paramilitary units, e.g., the Civil Air Patrol (51,000), and the Coast Guard.

Average Government wages is taken from Trends in Public Sector Pay in OECD Countries, 1995 edition and relates to 1993. Data on wages in manufacturing (monthly basis) are taken from the International Labor Office's Yearbook of Labor Statistics 1995 and refer to 1994.

ANNEX

Statistical Analysis of the Determinants of Government Employment

LS// Dependent Variable is GGES
 Date: 02/20/97 Time: 16:59
 Sample (adjusted): 2 106
 Included Observations:63
 Excluded Observations:48 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 4.430017 | 0.807882 | 5.483497 | 0.0000 |
| GNPES | 0.000218 | 4.21E-05 | 5.188164 | 0.0000 |
| WAGES | -0.493510 | 0.173612 | -2.842597 | 0.0064 |
| DEFES | -0.017872 | 0.038125 | -0.468772 | 0.6412 |
| POPES | -2.19E-06 | 2.63E-06 | -0.883523 | 0.4074 |
| R-squared | 0.561210 | Mean dependent var | | 4.388246 |
| Adjusted R-squared | 0.527457 | S.D. dependent var | | 3.529285 |
| S.E. of regression | 2.426092 | Akaike info criterion | | 1.856195 |
| Sum squared resid. | 306.0680 | Schwartz criterion | | 2.035410 |
| Log likelihood | -128.7810 | F-statistic | | 16.62694 |
| Durbin-Watson stat | 2.277264 | Prob (F- statistic) | | 0.00000 |

LS// Dependent Variable is CGES
 Date: 02/20/97 Time: 16:59
 Sample (adjusted) 2 106
 Included Observations: 63
 Excluded Observations: 42 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C | 1.642213 | 0.248333 | 6.612935 | 0.0000 |
| GNPES | 3.88E-05 | 1.37E-05 | 2.833393 | 0.0063 |
| WAGES | -0.129003 | 0.049464 | -2.608009 | 0.0116 |
| DEFES | 0.021473 | 0.012636 | 1.699317 | 0.0946 |
| POPES | -1.09E-06 | 8.66E-07 | -1.262658 | 0.4074 |
| R-squared | 0.398173 | Mean dependent var | | 1.312977 |
| Adjusted R-squared | 0.356668 | S.D. dependent var | | 1.011030 |
| S.E. of regression | 0.810927 | Akaike info criterion | | -0.343117 |
| Sum squared resid. | 38.14091 | Schwartz criterion | | -0.173027 |
| Log likelihood | -73.5849 | F-statistic | | 9.593321 |
| Durbin-Watson stat | 1.762644 | Prob (F- statistic) | | 0.000005 |

LS// Dependent Variable is LGES
 Date: 02/20/97 Time: 17:00
 Sample (adjusted): 2 106
 Included Observations: 57
 Excluded Observations:48 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C | 0.720664 | 0.373189 | 1.931094 | 0.0589 |
| GNPES | 0.000106 | 1.96E-05 | 5.40309 | 0.0000 |
| WAGES | -0.097075 | 0.080460 | -1.206499 | 0.2331 |
| DEFES | -0.013427 | 0.017759 | -0.75605 | 0.4530 |
| POPES | 2.62E-08 | 1.23E-06 | 0.021349 | 0.9830 |
| R-squared | 0.267527 | Mean dependent var | | 0.671667 |
| Adjusted R-squared | 0.188341 | S.D. dependent var | | 0.822142 |
| S.E. of regression | 0.740685 | Akaike info criterion | | -0.489016 |
| Sum squared resid. | 20.29872 | Schwartz criterion | | -0.282151 |
| Log likelihood | -44.32607 | F-statistic | | 3.378449 |
| Durbin-Watson stat | 2.486894 | Prob (F- statistic) | | 0.018755 |

LS// Dependent Variable is SSES
 Date: 02/20/97 Time: 17:01
 Sample(adjusted): 2 106
 Included Observations: 62
 Excluded Observations: 43 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 1.897881 | 0.437424 | 4.338764 | 0.0001 |
| GNPES | 9.02E-05 | 2.25E-05 | 3.658327 | 0.0006 |
| WAGES | -0.235981 | 0.087043 | -2.711096 | 0.0088 |
| DEFES | -0.029268 | 0.022256 | -1.315053 | 0.1938 |
| POPES | -1.25E-06 | 1.52E-06 | -0.820198 | 0.4155 |
| R-squared | 0.404088 | Mean dependent var | | 1.765323 |
| Adjusted R-squared | 0.362270 | S.D. dependent var | | 1.785203 |
| S.E. of regression | 1.425627 | Akaike info criterion | | 0.786431 |
| Sum squared resid. | 115.8475 | Schwartz criterion | | 0.957974 |
| Log likelihood | -107.3535 | F-statistic | | 9.662947 |
| Durbin-Watson stat | 1.670930 | Prob (F- statistic) | | 0.000005 |

LS// Dependent Variable is GGDEV
 Date: 02/20/97 Time: 17:39
 Sample(adjusted): 2 84
 Included Observations: 42
 Excluded Observations: 41 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 3.944510 | 0.749748 | 5.261116 | 0.0000 |
| GNPDEV | 0.000330 | 0.000164 | 2.012278 | 0.0515 |
| WAGDEV | -0.460340 | 0.136725 | -3.366903 | 0.0018 |
| DEFDEV | -0.05681 | 0.031674 | -1.793616 | 0.0811 |
| POPDEV | -9.63E-07 | 2.09E-06 | -0.461322 | 0.6473 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.401784 | Mean dependent var | 3.161429 |
| Adjusted R-squared | 0.337112 | S.D. dependent var | 2.272541 |
| S.E. of regression | 1.850256 | Akaike info criterion | 1.341992 |
| Sum squared resid. | 126.6676 | Schwartz criterion | 1.548857 |
| Log likelihood | -82.77724 | F-statistic | 6.212635 |
| Durbin-Watson stat | 2.170331 | Prob (F- statistic) | 0.000628 |

LS// Dependent Variable is CGDEV
 Date: 02/20/97 Time: 17:03
 Sample(adjusted): 2 84
 Included Observations: 48
 Excluded Observations: 35 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 1.428370 | 0.277359 | 5.149903 | 0.0000 |
| GNPDEV | 0.000121 | 6.20E-05 | 1.947966 | 0.0580 |
| WAGDEV | -0.118099 | 0.046544 | -2.537379 | 0.0149 |
| DEFDEV | 0.015606 | 0.012363 | 1.262255 | 0.2137 |
| POPDEV | -5.05E-07 | 8.13E-07 | -0.621271 | 0.5377 |

| | | | |
|--------------------|-----------|-----------------------|-----------|
| R-squared | 0.327761 | Mean dependent var | 1.078164 |
| Adjusted R-squared | 0.265227 | S.D. dependent var | 0.854470 |
| S.E. of regression | 0.732442 | Akaike info criterion | -0.524410 |
| Sum squared resid. | 23.06826 | Schwartz criterion | -0.329493 |
| Log likelihood | -50.52321 | F-statistic | 5.241334 |
| Durbin-Watson stat | 1.449308 | Prob (F- statistic) | 0.001575 |

LS// Dependent Variable is LGDEV
 Date: 02/20/97 Time: 17:04
 Sample(adjusted): 2 84
 Included Observations: 42
 Excluded Observations: 41 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 0.442226 | 0.302101 | 1.463837 | 0.1517 |
| GNPDEV | 0.000148 | 6.43E-05 | 2.296565 | 0.0274 |
| WAGDEV | -0.069783 | 0.054683 | -1.275772 | 0.2100 |
| DEFDEV | -0.032734 | 0.012657 | -2.586322 | 0.0138 |
| POPDEV | 2.50E-07 | 8.37E-07 | 0.298573 | 0.7669 |

| | | | |
|--------------------|-----------|-----------------------|-----------|
| R-squared | 0.267527 | Mean dependent var | 0.671667 |
| Adjusted R-squared | 0.188341 | S.D. dependent var | 0.822142 |
| S.E. of regression | 0.740685 | Akaike info criterion | -0.489016 |
| Sum squared resid. | 20.2987 | Schwartz criterion | -0.282151 |
| Log likelihood | -44.32607 | F-statistic | 3.378449 |
| Durbin-Watson stat | 3.140431 | Prob (F- statistic) | 0.01876 |

LS// Dependent Variable is SSDEV
 Date: 02/20/97 Time: 16:59
 Included Observations: 2 106
 Excluded Observations: 42 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 1.887425 | 0.411906 | 4.582171 | 0.0000 |
| GNP | 9.15E-05 | 9.20E-05 | 0.993986 | 0.3258 |
| WAG | -0.242491 | 0.069122 | -3.508153 | 0.0011 |
| DEF | 0.041049 | -0.018361 | -2.235737 | 0.0306 |
| POP | -6.73E-07 | 1.21E-06 | -0.557200 | 0.5803 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.352632 | Mean dependent var | 1.343542 |
| Adjusted R-squared | 0.292411 | S.D. dependent var | 1.293122 |
| S.E. of regression | 1.087752 | Akaike info criterion | 0.266559 |
| Sum squared resid. | 50.87778 | Schwartz criterion | 0.461475 |
| Log likelihood | -69.50645 | F-statistic | 5.855692 |
| Durbin-Watson stat | 1.853231 | Prob (F- statistic) | 0.000747 |

| LS// Dependent Variable is GCAFR | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:06 | | |
| Sample (adjusted): 2 21 | | | | |
| Included Observations: 13 | | | | |
| Excluded Observations: 7 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 1.723376 | 0.769969 | 2.238242 | 0.0556 |
| GNPAFR | 0.001361 | 0.000313 | 4.343263 | 0.0025 |
| WAGAFR | -0.150024 | 0.067517 | -2.221999 | 0.0570 |
| DEFAFR | 0.038423 | 0.033552 | 1.085543 | 0.3093 |
| POPAFR | 2.30E-05 | 2.54E-05 | 0.907620 | 0.3906 |
| R-squared | 0.926136 | Mean dependent var | | 2.012308 |
| Adjusted R-squared | 0.889204 | S.D. dependent var | | 1.675923 |
| S.E. of regression | 0.557850 | Akaike info criterion | | -0.883609 |
| Sum squared resid. | 2.489570 | Schwartz criterion | | -0.666320 |
| Log likelihood | -7.702744 | F-statistic | | 25.07667 |
| Durbin-Watson stat | 1.604378 | Prob (F- statistic) | | 0.000140 |

| LS// Dependent Variable is LGAFR | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:08 | | |
| Sample (adjusted): 2 21 | | | | |
| Included Observations: 14 | | | | |
| Excluded Observations: 6 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | -0.237224 | 0.311950 | -0.760457 | 0.4664 |
| GNPAFR | 0.000465 | 8.45E-05 | 5.503240 | 0.0004 |
| WAGAFR | -0.001326 | 0.035707 | -0.037128 | 0.9712 |
| DEFAFR | -0.011721 | 0.013570 | -0.863722 | 0.4102 |
| POPAFR | 5.84E-06 | 1.33E-05 | 0.439333 | 0.6708 |
| R-squared | 0.852438 | Mean dependent var | | 0.418571 |
| Adjusted R-squared | 0.786855 | S.D. dependent var | | 0.654168 |
| S.E. of regression | 0.302014 | Akaike info criterion | | -2.122110 |
| Sum squared resid. | 0.820913 | Schwartz criterion | | -1.893875 |
| Log likelihood | -0.010369 | F-statistic | | 12.99783 |
| Durbin-Watson stat | 1.214279 | Prob (F- statistic) | | 0.000881 |

| LS// Dependent Variable is CGAFR | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:07 | | |
| Sample (adjusted): 2 21 | | | | |
| Included Observations: 17 | | | | |
| Excluded Observations: 3 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 1.861027 | 0.421473 | 3.941002 | 0.0020 |
| GNPAFR | 0.000405 | 0.000113 | 3.570931 | 0.0038 |
| WAGAFR | -0.111574 | 0.044299 | -2.518636 | 0.0270 |
| DEFAFR | 0.064201 | 0.018320 | 3.504481 | 0.0043 |
| POPAFR | -4.78E-06 | 1.65E-05 | -0.289794 | 0.7769 |
| R-squared | 0.886701 | Mean dependent var | | 0.937059 |
| Adjusted R-squared | 0.848935 | S.D. dependent var | | 1.075824 |
| S.E. of regression | 0.418141 | Akaike info criterion | | -1.503944 |
| Sum squared resid. | 2.098103 | Schwartz criterion | | -1.258882 |
| Log likelihood | -6.338428 | F-statistic | | 23.47871 |
| Durbin-Watson stat | 2.004957 | Prob (F- statistic) | | 0.000013 |

| LS// Dependent Variable is SSAFR | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:10 | | |
| Sample (adjusted): 2 21 | | | | |
| Included Observations: 17 | | | | |
| Excluded Observations: 3 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 1.194670 | 0.367491 | 3.250879 | 0.0069 |
| GNPAFR | 1.56E-06 | 9.90E-05 | 0.015786 | 0.9877 |
| WAGAFR | -0.091142 | 0.038626 | -2.359645 | 0.0361 |
| DEFAFR | 0.022093 | 0.015973 | 1.383145 | 0.1918 |
| POPAFR | 2.00E-05 | 1.44E-05 | 1.392073 | 0.1892 |
| R-squared | 0.446279 | Mean dependent var | | 0.701765 |
| Adjusted R-squared | 0.261706 | S.D. dependent var | | 0.424312 |
| S.E. of regression | 0.364586 | Akaike info criterion | | -1.778058 |
| Sum squared resid. | 1.595074 | Schwartz criterion | | -1.532995 |
| Log likelihood | -4.008464 | F-statistic | | 2.417892 |
| Durbin-Watson stat | 1.904124 | Prob (F- statistic) | | 0.106003 |

LS// Dependent Variable is GGAS
 Date: 02/20/97 Time: 17:11
 Sample (adjusted): 22 36
 Included Observations: 9
 Excluded Observations: 6 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 2.750083 | 1.765941 | 1.557291 | 0.1944 |
| GNPAS | 0.000149 | 0.000366 | 0.407040 | 0.7048 |
| WAGAS | -0.174551 | 0.617012 | -0.282898 | 0.7913 |
| DEFAS | -0.048917 | 0.203299 | -0.240618 | 0.8217 |
| POPAS | -1.24E-06 | 4.08E-06 | -0.304086 | 0.7762 |
| R-squared | 0.235009 | Mean dependent var | | 2.400000 |
| Adjusted R-squared | -0.529983 | S.D. dependent var | | 1.354732 |
| S.E. of regression | 1.65702 | Akaike info criterion | | 1.332645 |
| Sum squared resid. | 11.2319 | Schwartz criterion | | 1.442214 |
| Log likelihood | -13.76735 | F-statistic | | 0.307204 |
| Durbin-Watson stat | 0.31329 | Prob (F- statistic) | | 0.860271 |

LS// Dependent Variable is CGAS
 Date: 02/20/97 Time: 17:12
 Sample (adjusted): 22 36
 Included Observations: 9
 Excluded Observations: 6 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|----------|
| C | 1.072659 | 1.132723 | 0.946974 | 0.3973 |
| GNPAS | 1.37E-05 | 0.000235 | 0.058445 | 0.9562 |
| WAGAS | -0.008981 | 0.395768 | -0.022693 | 0.9830 |
| DEFAS | -0.074358 | 0.130402 | -0.570223 | 0.5990 |
| POPAS | -1.61E-06 | 2.62E-06 | 0.616457 | 0.5709 |
| R-squared | 0.244789 | Mean dependent var | | 1.093333 |
| Adjusted R-squared | -0.510421 | S.D. dependent var | | 0.874571 |
| S.E. of regression | 1.074841 | Akaike info criterion | | 0.444527 |
| Sum squared resid. | 4.621133 | Schwartz criterion | | 0.554096 |
| Log likelihood | -9.770816 | F-statistic | | 0.324134 |
| Durbin-Watson stat | 0.506640 | Prob (F- statistic) | | 0.849571 |

LS// Dependent Variable is LGAS
 Date: 02/20/97 Time: 17:14
 Sample (adjusted): 24 36
 Included Observations: 8
 Excluded Observations: 5 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C | 0.227103 | 0.255045 | 0.890440 | 0.4388 |
| GNPAS | -3.36E-05 | 6.28E-05 | -0.534863 | 0.8298 |
| WAGAS | 0.197640 | 0.110220 | 1.793142 | 0.1708 |
| DEFAS | -0.011490 | 0.028364 | -0.405099 | 0.7126 |
| POPAS | -1.42E-06 | 7.21E-07 | -1.975279 | 0.1427 |
| R-squared | 0.677710 | Mean dependent var | | 0.616250 |
| Adjusted R-squared | 0.247990 | S.D. dependent var | | 0.268750 |
| S.E. of regression | 0.233056 | Akaike info criterion | | -2.643779 |
| Sum squared resid. | 0.162946 | Schwartz criterion | | -2.594128 |
| Log likelihood | 4.223607 | F-statistic | | 1.577096 |
| Durbin-Watson stat | 1.569477 | Prob (F- statistic) | | 0.368963 |

LS// Dependent Variable is SSAS
 Date: 02/20/97 Time: 17:15
 Sample (adjusted): 22 36
 Included Observations: 9
 Excluded Observations: 6 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------------------|-------------|-----------|
| C | 1.256052 | 0.364937 | 3.441834 | 0.0262 |
| GNPAS | 6.75E-05 | 7.57E-05 | 0.891803 | 0.4229 |
| WAGAS | -0.169950 | 0.127507 | -1.332865 | 0.2534 |
| DEFAS | 0.030419 | 0.042012 | 0.724056 | 0.5091 |
| POPAS | 5.53E-07 | 8.43E-07 | 0.656674 | 0.5473 |
| R-squared | 0.506824 | Mean dependent var | | 0.760000 |
| Adjusted R-squared | 0.013647 | S.D. dependent var | | 0.348676 |
| S.E. of regression | 0.346289 | Akaike info criterion | | -1.820784 |
| Sum squared resid. | 0.479663 | Schwartz criterion | | -1.711215 |
| Log likelihood | 0.423083 | F-statistic | | 1.027672 |
| Durbin-Watson stat | 0.498413 | Prob (F- statistic) | | 0.489765 |

LS// Dependent Variable is GGECA
 Date: 02/21/97 Time: 17:39
 Sample Adjusted: 38 61
 Included Observations: 17
 Excluded Observations:7 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 7.695013 | 1.339266 | 5.745693 | 0.0001 |
| GNP | -0.000163 | 0.000666 | -0.244793 | 0.8104 |
| WAG | -0.177815 | 0.388636 | -0.457535 | 0.6548 |
| POP | 7.73E-07 | 1.75E-05 | 0.044269 | 0.9654 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.023014 | Mean dependent var | 7.188235 |
| Adjusted R-squared | -0.202444 | S.D. dependent var | 2.211584 |
| S.E. of regression | 2.425135 | Akaike info criterion | 1.974098 |
| Sum squared resid. | 76.45662 | Schwartz criterion | 2.170149 |
| Log likelihood | -36.90179 | F-statistic | 0.102077 |
| Durbin-Watson stat | 2.385823 | Prob (F- statistic) | 0.957386 |

LS// Dependent Variable is CGECA
 Date: 02/21/97 Time: 17:44
 Sample Adjusted: 1 23
 Included Observations:19
 Excluded Observations: 4 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 1.377294 | 0.768481 | 1.792228 | 0.0933 |
| GNP | -0.000210 | 0.000323 | -0.649760 | 0.5257 |
| WAG | 0.127189 | 0.207478 | 0.613022 | 0.5490 |
| POP | 9.31E-06 | 2.41E-05 | 0.387083 | 0.7041 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.060557 | Mean dependent var | 1.273684 |
| Adjusted R-squared | -0.127332 | S.D. dependent var | 1.223744 |
| S.E. of regression | 1.299344 | Akaike info criterion | 0.708383 |
| Sum squared resid. | 25.32443 | Schwartz criterion | 0.907212 |
| Log likelihood | -29.68947 | F-statistic | 0.322300 |
| Durbin-Watson stat | 2.058236 | Prob (F- statistic) | 0.809176 |

LS// Dependent Variable is LGECA
 Date: 02/21/97 Time: 17:44
 Sample Adjusted: 1 23
 Included Observations: 16
 Excluded Observations:7 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 0.267687 | 0.283629 | 0.943793 | 0.3639 |
| GNP | 9.90E-05 | 9.37E-05 | 1.056138 | 0.3117 |
| WAG | -0.263260 | 0.161177 | -1.633366 | 0.1283 |
| POP | 5.55E-05 | 6.33E-06 | 8.764652 | 0.0000 |

| | | | |
|--------------------|----------|-----------------------|-----------|
| R-squared | 0.873956 | Mean dependent var | 0.762500 |
| Adjusted R-squared | 0.842445 | S.D. dependent var | 0.843702 |
| S.E. of regression | 0.334892 | Akaike info criterion | -1.975575 |
| Sum squared resid. | 1.345833 | Schwartz criterion | -1.782428 |
| Log likelihood | -2898413 | F-statistic | 27.73499 |
| Durbin-Watson stat | 2.086329 | Prob (F- statistic) | 0.000011 |

LS// Dependent Variable is SSECA
 Date: 02/21/97 Time: 17:45
 Sample Adjusted: 1 23
 Included Observations: 19
 Excluded Observations: 4 after adjusting endpoints

| Variable | Coefficient | Std. Error | t-statistic | Prob. |
|----------|-------------|------------|-------------|--------|
| C | 5.213261 | 1.250810 | 4.167908 | 0.0008 |
| GNP | -1.74E-05 | 0.000526 | -0.033007 | 0.9741 |
| WAG | -0.060975 | 0.337699 | -0.180559 | 0.8591 |
| POP | 1.19E-05 | 3.92E-05 | 0.304088 | 0.7652 |

| | | | |
|--------------------|-----------|-----------------------|----------|
| R-squared | 0.010062 | Mean dependent var | 5.221053 |
| Adjusted R-squared | -0.187925 | S.D. dependent var | 1.940383 |
| S.E. of regression | 2.114862 | Akaike info criterion | 1.682643 |
| Sum squared resid. | 67.08964 | Schwartz criterion | 1.881473 |
| Log likelihood | -38.94494 | F-statistic | 0.050823 |
| Durbin-Watson stat | 1.363704 | Prob (F- statistic) | 0.984269 |

| LS// Dependent Variable is GGLAC | | | | |
|--|-------------|-----------------------|-------------|----------|
| Date: 02/20/97 | | Time: 17:24 | | |
| Sample Adjusted: 64 76 | | | | |
| Included Observations: 9 | | | | |
| Excluded Observations: 4 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 5.288209 | 1.419437 | 3.725568 | 0.0204 |
| GNP | 0.000663 | 0.000213 | 3.110846 | 0.0358 |
| WAG | -1.072847 | 0.403904 | -2.656195 | 0.0566 |
| DEF | -0.042361 | 0.077584 | -0.546005 | 0.6141 |
| POP | -7.58E-05 | 3.71E-05 | -2.044337 | 0.1104 |
| R-squared | 0.816854 | Mean dependent var | | 2.977778 |
| Adjusted R-squared | 0.633708 | S.D. dependent var | | 1.737187 |
| S.E. of regression | 1.051382 | Akaike info criterion | | 4.400392 |
| Sum squared resid. | 4.421615 | Schwartz criterion | | 0.509961 |
| Log likelihood | -9.572209 | F-statistic | | 4.460121 |
| Durbin-Watson stat | 2.527886 | Prob (F- statistic) | | 0.088341 |

| LS// Dependent Variable is CGLAC | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:25 | | |
| Sample Adjusted: 64 76 | | | | |
| Included Observations: 10 | | | | |
| Excluded Observations: 3 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 2.494495 | 0.612429 | 4.073118 | 0.0096 |
| GNP | 0.000166 | 9.14E-05 | 1.813993 | 0.1294 |
| WAG | -0.428175 | 0.174776 | -2.449851 | 0.0579 |
| DEF | -0.015926 | 0.033577 | -0.474316 | 0.6553 |
| POP | -4.81E-05 | 1.60E-05 | -3.002994 | 0.0300 |
| R-squared | 0.753048 | Mean dependent var | | 1.074000 |
| Adjusted R-squared | 0.555487 | S.D. dependent var | | 0.683686 |
| S.E. of regression | 0.455826 | Akaike info criterion | | -1.264436 |
| Sum squared resid. | 1.038887 | Schwartz criterion | | -1.113143 |
| Log likelihood | -2.867207 | F-statistic | | 3.811717 |
| Durbin-Watson stat | 2.443365 | Prob (F- statistic) | | 0.087361 |

| LS// Dependent Variable is LGLAC | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:26 | | |
| Sample Adjusted: 64 76 | | | | |
| Included Observations: 9 | | | | |
| Excluded Observations: 4 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -0.205761 | 0.477368 | -0.431032 | 0.6887 |
| GNP | 0.000393 | 7.17E-05 | 5.487218 | 0.0054 |
| WAG | -0.146358 | 0.135836 | -1.077464 | 0.3419 |
| DEF | -0.055528 | 0.026092 | -2.128171 | 0.1004 |
| POP | 1.29E-05 | 1.25E-05 | 1.03257 | 0.3601 |
| R-squared | 0.915781 | Mean dependent var | | 0.701111 |
| Adjusted R-squared | 0.831563 | S.D. dependent var | | 0.861546 |
| S.E. of regression | 0.353588 | Akaike info criterion | | -1.779066 |
| Sum squared resid. | 0.500097 | Schwartz criterion | | -1.669496 |
| Log likelihood | 0.235349 | F-statistic | | 10.87386 |
| Durbin-Watson stat | 1.678907 | Prob (F- statistic) | | 0.020084 |

| LS// Dependent Variable is SSLAC | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:28 | | |
| Sample Adjusted: 64 76 | | | | |
| Included Observations: 10 | | | | |
| Excluded Observations: 3 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | 2.936912 | 0.775864 | 3.785344 | 0.0128 |
| GNP | 0.000118 | 0.000116 | 1.023043 | 0.3532 |
| WAG | -0.509557 | 0.221417 | -2.301344 | 0.0697 |
| DEF | 0.031162 | 0.042538 | 0.732570 | 0.4967 |
| POP | -3.93E-05 | 2.03E-05 | -1.935558 | 0.1107 |
| R-squared | 0.651610 | Mean dependent var | | 1.139000 |
| Adjusted R-squared | 0.372899 | S.D. dependent var | | 0.729223 |
| S.E. of regression | 0.577469 | Akaike info criterion | | -0.791347 |
| Sum squared resid. | 1.667354 | Schwartz criterion | | -0.640055 |
| Log likelihood | -5.232649 | F-statistic | | 2.337938 |
| Durbin-Watson stat | 2.919531 | Prob (F- statistic) | | 0.188347 |

| LS// Dependent Variable is GGMENA | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:29 | | |
| Sample (adjusted):78 84 | | | | |
| Included Observations: 6 | | | | |
| Excluded Observations: 1 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 8.640688 | 2.965257 | 2.913977 | 0.2105 |
| GNPMENA | -0.000162 | 0.000323 | -0.502875 | 0.7034 |
| WAGMENA | -2.370654 | 1.050439 | -2.256823 | 0.2655 |
| DEFMENA | -0.175972 | 0.232246 | -0.757695 | 0.5872 |
| POPMENA | 0.000158 | 5.54E-05 | 2.841528 | 0.2154 |
| R-squared | 0.943719 | Mean dependent var | | 4.066667 |
| Adjusted R-squared | 0.718597 | S.D. dependent var | | 1.478738 |
| S.E. of regression | 0.784432 | Akaike info criterion | | -0.610683 |
| Sum squared resid. | 0.612334 | Schwartz criterion | | -0.784217 |
| Log likelihood | -1.681581 | F-statistic | | 4.192033 |
| Durbin-Watson stat | 2.243519 | Prob (F- statistic) | | 0.349177 |

| LS// Dependent Variable is CGMENA | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 02/20/97 | | Time: 17:30 | | |
| Sample (adjusted):7884 | | | | |
| Included Observations: 6 | | | | |
| Excluded Observations: 1 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 1.578321 | 1.578454 | 0.999915 | 0.5000 |
| GNPMENA | 0.000219 | 0.000172 | 1.275080 | 0.4234 |
| WAGMENA | -0.333139 | 0.559166 | -0.595778 | 0.6579 |
| DEFMENA | 0.037013 | 0.123628 | 0.299393 | 0.8148 |
| POPMENA | 2.64E-05 | 2.95E-05 | 0.894307 | 0.5355 |
| R-squared | 0.932606 | Mean dependent var | | 1.400000 |
| Adjusted R-squared | 0.663031 | S.D. dependent var | | 0.719333 |
| S.E. of regression | 0.417566 | Akaike info criterion | | -1.871718 |
| Sum squared resid. | 0.173461 | Schwartz criterion | | -2.045252 |
| Log likelihood | 2.101524 | F-statistic | | 3.459538 |
| Durbin-Watson stat | 2.243519 | Prob (F- statistic) | | 0.380657 |

| LS// Dependent Variable is LGMENA | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 2/20/97 | | Time: 17:31 | | |
| Included Observations:6 | | | | |
| Excluded Observations: 1 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 2.966328 | 0.612731 | 4.841157 | 0.1297 |
| GNPMENA | -0.000358 | 6.68E-05 | -5.360037 | 0.1174 |
| WAGMENA | -1.232271 | 0.217059 | -5.677117 | 0.1110 |
| DEFMENA | -0.209944 | 0.047991 | -4.374691 | 0.1431 |
| POPMENA | 0.000107 | 1.15E-05 | 9.365905 | 0.0677 |
| R-squared | 0.994857 | Mean dependent var | | 0.755000 |
| Adjusted R-squared | 0.974286 | S.D. dependent var | | 1.010836 |
| S.E. of regression | 0.162093 | Akaike info criterion | | -3.764268 |
| Sum squared resid. | 0.026274 | Schwartz criterion | | -3.937802 |
| Log likelihood | 7.779173 | F-statistic | | 48.36221 |
| Durbin-Watson stat | 2.243519 | Prob (F- statistic) | | 0.107385 |

| LS// Dependent Variable is SSMENA | | | | |
|--|-------------|-----------------------|-------------|-----------|
| Date: 2/20/97 | | Time:17:32 | | |
| Included Observations: 6 | | | | |
| Excluded Observations: 1 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 4.197969 | 0.648123 | 6.477116 | 0.0975 |
| GNPMENA | -3.09E-05 | 7.06E-05 | -0.437393 | 0.7375 |
| WAGMENA | -0.845197 | 0.229597 | -3.681222 | 0.1689 |
| DEFMENA | -0.010610 | 0.050763 | -0.209005 | 0.8688 |
| POPMENA | 2.59E-05 | 1.21E-05 | 2.137013 | 0.2786 |
| R-squared | 0.983896 | Mean dependent var | | 1.928333 |
| Adjusted R-squared | 0.919482 | S.D. dependent var | | 0.604232 |
| S.E. of regression | 0.171455 | Akaike info criterion | | -3.651959 |
| Sum squared resid. | 0.029397 | Schwartz criterion | | -3.825493 |
| Log likelihood | 7.442246 | F-statistic | | 15.27446 |
| Durbin-Watson stat | 2.243519 | Prob (F- statistic) | | 0.189328 |

| LS// Dependent Variable is GGOECD | | | | |
|--|-------------|-----------------------|-------------|----------|
| Date: 2/20/1997 | | Time: 17:33 | | |
| Sample (adjusted):87 106 | | | | |
| Included Observations:15 | | | | |
| Excluded Observations: 5 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -1.829757 | 8.057647 | -0.227083 | 0.8249 |
| GNPOECD | 0.000423 | 0.000270 | 1.564151 | 0.1488 |
| WAGOECD | 1.917626 | 2.280271 | 0.840964 | 0.4200 |
| DEFOECD | 0.514072 | 0.290110 | 1.771986 | 0.1068 |
| POPOECD | -2.09E-05 | 1.30E-05 | -1.605328 | 0.1395 |
| R-squared | 0.613072 | Mean dependent var | | 7.823333 |
| Adjusted R-squared | 0.458301 | S.D. dependent var | | 4.188204 |
| S.E. of regression | 3.082525 | Akaike info criterion | | 2.512700 |
| Sum squared resid. | 95.01963 | Schwartz criterion | | 2.748717 |
| Log likelihood | -35.12933 | F-statistic | | 3.961158 |
| Durbin-Watson stat | 2.296320 | Prob (F- statistic) | | 0.035257 |

| LS// Dependent Variable is CGOECD | | | | |
|--|-------------|-----------------------|-------------|----------|
| Date: 02/20/97 | | Time: 16:59 | | |
| Sample (adjusted): 87 106 | | | | |
| Included Observations: 15 | | | | |
| Excluded Observations:48 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 0.131228 | 2.651409 | 0.049494 | 0.9615 |
| GNPOECD | 0.000107 | 8.90E-05 | 1.202872 | 0.2567 |
| WAGOECD | 0.090649 | 0.750334 | 0.120811 | 0.9062 |
| DEFOECD | 0.026864 | 0.095462 | 0.281415 | 0.7841 |
| POPOECD | -8.61E-06 | 4.28E-06 | -2.010909 | 0.0721 |
| R-squared | 0.426494 | Mean dependent var | | 2.065333 |
| Adjusted R-squared | 0.197091 | S.D. dependent var | | 1.131989 |
| S.E. of regression | 1.014320 | Akaike info criterion | | 0.289639 |
| Sum squared resid. | 10.28846 | Schwartz criterion | | 0.525656 |
| Log likelihood | -18.45637 | F-statistic | | 1.859151 |
| Durbin-Watson stat | 2.190804 | Prob (F- statistic) | | 0.194347 |

| LS// Dependent Variable is LGOECD | | | | |
|---|-------------|-----------------------|-------------|----------|
| Date: 02/20/97 | | Time: 16:59 | | |
| Sample (adjusted): 87 106 | | | | |
| Included Observations: 2 106 | | | | |
| Excluded Observations: 42 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-statistic | Prob. |
| C | 2.122548 | 4.38056 | 0.484538 | 0.6384 |
| GNPOECD | 1.94E-05 | 0.000147 | 0.132112 | 0.8975 |
| WAGOECD | 0.725754 | 1.239675 | 0.585439 | 0.5712 |
| DEFOECD | 0.311453 | 0.157719 | 1.974728 | 0.0765 |
| POPOECD | -2.71E-06 | 7.07E-06 | -0.383127 | 0.7096 |
| R-squared | 0.46893 | Mean dependent var | | 2.762 |
| Adjusted R-squared | 0.22565 | S.D. dependent var | | 1.904405 |
| S.E. of regression | 1.675823 | Akaike info criterion | | 1.29381 |
| Sum squared resid. | 28.08381 | Schwartz criterion | | 1.529827 |
| Log likelihood | -25.98765 | F-statistic | | 2.01992 |
| Durbin-Watson stat | 1.938239 | Prob (F- statistic) | | 0.167436 |

| LS// Dependent Variable is SSOECD | | | | |
|--|-------------|-----------------------|-------------|----------|
| Date: 2/20/97 | | Time: 17:37 | | |
| Sample (adjusted): 87 106 | | | | |
| Included Observations: 14 | | | | |
| Excluded Observations: 6 after adjusting endpoints | | | | |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -5.820723 | 5.733659 | -1.015185 | 0.3365 |
| GNPOECD | 0.000363 | 0.000193 | 1.878906 | 0.0930 |
| WAGOECD | 1.512013 | 1.614476 | 0.936535 | 0.3734 |
| DEFOECD | 0.164684 | 0.203088 | 0.810900 | 0.4383 |
| POPOECD | -1.17E-05 | 9.20E-06 | -1.275839 | 0.2340 |
| R-squared | 0.463236 | Mean dependent var | | 3.211429 |
| Adjusted R-squared | 0.224675 | S.D. dependent var | | 2.449426 |
| S.E. of regression | 2.156783 | Akaike info criterion | | 1.809688 |
| Sum squared resid. | 41.86540 | Schwartz criterion | | 2.037923 |
| Log likelihood | -27.53296 | F-statistic | | 1.941790 |
| Durbin-Watson stat | 0.866899 | Prob (F- statistic) | | 0.187593 |

Policy Research Working Paper Series

| Title | Author | Date | Contact for paper |
|---|---|-------------|------------------------------|
| WPS1787 Trading Arrangements and Industrial Development | Diego Puga Anthony J. Venables | June 1997 | J. Ngaine 37947 |
| WPS1788 An Economic Analysis of Woodfuel Management in the Sahel: The Case of Chad | Kenneth M. Chomitz Charles Griffiths | June 1997 | A. Maranon 39074 |
| WPS1789 Competition Law in Bulgaria After Central Planning | Bernard Hoekman Simeon Djankov | June 1997 | J. Ngaine 37947 |
| WPS1790 Interpreting the Coefficient of Schooling in the Human Capital Earnings Function | Barry R. Chiswick | June 1997 | P. Singh 85631 |
| WPS1791 Toward Better Regulation of Private Pension Funds | Hemant Shah | June 1997 | N. Johl 38613 |
| WPS1792 Tradeoffs from Hedging: Oil Price Risk in Ecuador | Sudhakar Satyanarayan | June 1997 | E. Somensatto 30128 |
| WPS1793 Wage and Pension Pressure on the Polish Budget | Alain de Crombrughe | June 1997 | M. Jandu 33103 |
| WPS1794 Ownership Structure, Corporate Governance, and Corporate Performance: The Case of Chinese Stock Companies | Xiaonian Xu Yan Wang | June 1997 | J. Chinsen 34022 |
| WPS1795 What Educational Production Functions Really Show: A Positive Theory of Education Spending | Lant Pritchett Deon Filmer | July 1997 | S. Fallon 38009 |
| WPS1796 Cents and Sociability: Household Income and Social Capital in Rural Tanzania | Deepa Narayan Lant Pritchett | July 1997 | S. Fallon 38009 |
| WPS1797 Formal and Informal Regulation of Industrial Pollution: Comparative Evidence from Indonesia and the United States | Sheoli Pargal Hemamala Hettige Manjula Singh David Wheeler | July 1997 | E. de Castro 89121 |
| WPS1798 Poor Areas, Or Only Poor People? | Martin Ravallion Quentin Wodon | July 1997 | P. Sader 33902 |
| WPS1799 More for the Poor Is Less for the Poor: The Politics of Targeting | Jonath B. Gelbach Lant H. Pritchett | July 1997 | S. Fallon 38009 |
| WPS1800 Single-Equation Estimation of the Equilibrium Real Exchange Rate | John Baffes Ibrahim A. Elbadawi Stephen A. O'Connell | August 1997 | P. Kokila 33716 |

Policy Research Working Paper Series

| Title | Author | Date | Contact for paper |
|---|---------------------------------------|-------------|------------------------------|
| WPS1801 Regional Integration as Diplomacy | Maurice Schiff L. Alan Winters | August 1997 | J. Ngaine 37947 |
| WPS1802 Are There Synergies Between World Bank Partial Credit Guarantees and Private Lending? | Harry Huizinga | August 1997 | P. Sintim-Aboagye 38526 |
| WPS1803 Fiscal Adjustments in Transition Economies: Social Transfers and the Efficiency of Public Spending: A Comparison with OECD Countries | Barbara Fakin Alain de Crombrugghe | August 1997 | M. Jandu 33103 |
| WPS1804 Financial Sector Adjustment Lending: A Mid-Course Analysis | Robert J. Culi | August 1997 | P. Sintim-Aboagye 37644 |
| WPS1805 Regional Economic Integration and Agricultural Trade | Junichi Goto | August 1997 | G. Ilogon 33732 |