Compensation of Employees

*Paper for Session 2*

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I. Introduction

1. This document is mainly an excerpt of Chapter 8 of the ICP Handbook, with a few changes here and there to better put emphasis on Compensation of Government Employees. It also includes large excerpts of the SNA manual. The purpose of it is to remind us of aspects to be borne in mind in estimating PPPs for General Government. The document focuses only on the implementation of activities to be conducted at national and regional level to compare compensation of Government employees across the countries, with a view to estimating PPPs for Government collective services. It does not address productivity requirements which will be dealt with separately. The actual value added of this document is the proposed sequence of tasks to be undertaken by national accounts experts from each country as explained in section “VI-Implementation process”

2. In the absence of market prices for Government collective services, the value of relevant current expenditures has to be estimated in the national accounts by the current value of the inputs used to produce them. Similarly, as there are no market prices the PPPs also have to be estimated indirectly using other data. The approach proposed under the ICP suggests obviously that the relevant work must be undertaken by National Accounts experts in any given country, for proper adherence to SNA requirements and to ensure optimal consistency between expenditure data and compensation of employees. It’s about doing two things at the same time: collecting salary data and compiling expenditures from Government sources.

II. The general government sector

3. The general government sector consists of:
   - All units of central, state or local government
   - All non-market NPIs that are controlled by government units.
4. The sector also includes social security funds, either as separate institutional units or as part of any or all of central, state or local government.
5. For the purpose of comparing government occupations salaries across the countries, given the difficulty of obtaining reliable information from government controlled NPIs, salaries and wages to be collected are those provided by central and local/state government units.

III. Selection of Government Occupations

1. Compensation of employees as costs of producing government services are used as prices, i.e. wage and salary rates paid, including supplementary benefits. All countries in all regions are required to use the same list of occupations proposed by the Global Office.
However, where necessary, minor modifications can be made in the regions to accommodate their particular conditions. Also, occupations that are not relevant for a particular country will not be included in list of occupations.

2. For time consistency sake, the same list as in 2005 is being proposed herein. It includes fifty occupations based on job descriptions taken from the ISCO-88\(^1\).

### Standard Government Occupations

#### Health Services
101 Doctor, Head of Department  
102 Doctor, (20 years of seniority)  
103 Doctor (10 years of seniority)  
104 Nurse, Head of Department  
105 Nurse, Operating Theatre  
106 Nurse  
107 Nursing Auxiliary  
108 Physiotherapist  
109 Laboratory Assistant  
110 Hospital Chief Executive  
111 Secretary (Hospital)  
112 Cook (not Head Cook)  
113 Community Health Worker

#### Collective Services
201 Finance Department Manager  
202 Executive Official (skill level III)  
203 Executive official (skill level IV)  
204 Computer Operator  
205 Bookkeeping Clerk  
206 Data Entry Clerk  
207 Secretary (not Hospital)  
208 Telephone Switchboard Operator  
209 Messenger  
210 Maintenance Electrician  
211 Building Caretaker  
212 Cleaner  
213 Policeman/woman  
214 Prison Guard  
215 Fire Fighter  
216 Social Worker  
217 Town Planner  
218 Civil Engineer  
219 Draughtsman/Draughtswoman  
220 Construction Labourer  
221 Chauffeur  
222 Agricultural Scientist  
223 Librarian  
224 Data-base Administrator

IV. Description of Compensation of Employees

3. The content of compensation of employees is as defined in the 1993 SNA except that:

   • Overtime payments are excluded from gross salaries and wages, which results in higher volume measures. However there is no evidence that volumes indices are significantly affected by this deviation from the SNA.
   • The only benefits in kind to be taken into account are the provision of free or subsidised housing and food or meals. Other forms of income in kind are both difficult to evaluate in ways which are internationally comparable and are insignificant in the majority of countries.

4. Compensation of employees includes all payments in cash and kind made by general government in a year. These payments in cash and kind comprise:

   • Gross salaries and wages in cash (before deduction of taxes and social contributions payable by employees) cover:
     
     o Basic salaries and wages as laid down in the salary scales;
     
     o Other payments, over and above the basic salary or wage, such as: housing or residence allowance, passage or leave allowance, family allowance, special duty allowance or acting allowance, 13th month pay and other cash payments except overtime payments. (As noted above it is very difficult to obtain data on overtime that are comparable across countries and so overtime payments are excluded.)

   • Benefits in kind cover things such as free or subsidised housing, meals, transport allowance, reimbursement of medical expenses and the like. Many of these benefits are difficult to evaluate, as they can vary from one general government institution to another. However income in kind in the form of housing and food or meals is important in many countries and must be included in compensation of employees. According to the 1993 SNA, income in kind is valued at the costs of production when the items concerned are produced by the employer and at purchasers’ prices when they are bought by the employer and passed on to the employee.
• **Employers' actual social contributions** are payments made by general government for the benefit of their employees and cover contributions for old age pensions, and for insurance against sickness, accident and disability. They are calculated on the basis of the schemes in operation in the various countries.

• **Imputed social contributions** represent the counterpart to social benefits paid directly by general government institutions without participating in, or establishing a fund, reserve or other special scheme for this purpose. Since these contributions do not involve actual cash flows, they have to be imputed. The imputations have to be done in line with the corresponding imputations made in the national account.

5. The compensation of employees to be reported for the selected occupations should not be extracted from government payrolls. Dividing the total compensation of employees paid to employees in a selected occupation by the total number of employees in the selected occupation gives an average that is representative of the country, but it does not give an average that is comparable across countries. This is because the distribution of the employees in the selected occupation over the various grades, categories and steps that make up the pay scale for the occupation will differ from country to country. Instead, the compensation of employees should be derived by a less representative but more comparable approach that involves working from government salary scales directly.

6. The recommended approach is as follows. Underlying the compensations of employees paid by government are the basic salaries and wages that are laid down in government salary scales. Once the basic salary or wage has been established for an occupation, it is relatively straightforward to compute its compensation of employees because most of the other components of compensation of employees (such as housing or residence allowance, family allowance, special duty allowance, etc) are normally related to the salary scale by being defined as percentage additions to the basic salary or wage. To determine the compensation of employees for the selected occupations, countries have first to locate the basic salary or wage for each selected occupation in the government salary scales. The procedure to be applied is described in the following section.

### V. Determining the basic salary for a selected occupation using a salary scale

<table>
<thead>
<tr>
<th>Grades and Categories</th>
<th>Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>P4</td>
<td>88,900</td>
</tr>
<tr>
<td>P3</td>
<td>76,800</td>
</tr>
<tr>
<td>P2</td>
<td>66,100</td>
</tr>
<tr>
<td>P1</td>
<td>53,600</td>
</tr>
<tr>
<td>T4</td>
<td>47,900</td>
</tr>
<tr>
<td>T3</td>
<td>41,200</td>
</tr>
<tr>
<td>T2</td>
<td>35,500</td>
</tr>
<tr>
<td>T1</td>
<td>31,100</td>
</tr>
<tr>
<td>W4</td>
<td>34,700</td>
</tr>
<tr>
<td>W3</td>
<td>31,300</td>
</tr>
<tr>
<td>W2</td>
<td>28,400</td>
</tr>
<tr>
<td>W1</td>
<td>25,700</td>
</tr>
</tbody>
</table>
7. Employees in public administrations are usually paid on the basis of a salary scale such as in the table shown above. The scale is divided into grades – P, T and W. Grades generally correspond to levels of education or skills.

8. Within each grade there are four categories and each category is itself divided into steps - 1 to 7 in this example. Each step can be 12 months, 18 months or more. For each selected occupation the category that is most representative in each country is to be identified. Representative here means the modal category associated with the selected occupation. The appropriate step within the category is determined by the seniority specified for the selected occupation.

9. Take, for example, a Draughtsman. If the distribution of Draughtsmen is 15 per cent T1, 25 per cent T2, 35 per cent T3, 20 per cent T4 and 5 per cent P1, then T3 is selected as the modal category. If 5 years seniority has been specified for this particular occupation and if each step is 12 months, the salary for category T3 with five years seniority will be 46,800 (equivalent to five steps). But if each step was 18 months or 24 months, five years seniority would be equivalent to four steps and a salary of 45,400 in the case of 18 month steps and to three steps and a salary of 44,000 in the case of 24 month steps.

10. It can happen that the distribution of employees over the categories associated with a particular occupation is bimodal, or approximately bimodal. In such cases the salary of both categories should be determined and an arithmetic average taken of the two. For example, if in the distribution of executive officials in the previous paragraph categories T2 and T3 were both 30 per cent, the salary – assuming steps of 12 months - would be 40,300 for T2 and 46,800 for T3. In this case the basic salary for an executive official with skill level III would be the arithmetic average of the basic salaries established for these two categories – which is, \((40,300 + 46,800) / 2\) or 43,550.

11. The compensation of employees reported for each selected occupation must be annual. This is not a particularly difficult requirement. Salary scales usually show annual amounts and any revisions to the salary scales that take place during the reference year are relatively straightforward to accommodate. When there are revisions, a weighted average needs to be calculated. This can be illustrated by returning to the example of the Draughtsman. If a five per cent increase in salaries came into effect in October of the reference year, then for the first nine months the salary for category T3 would be 46,800 and for the last three months it would be 49,140. The weighted average of the two – \(((46,800 \times 9) + [49,140 \times 3]) / 12\) – provides the basic salary required, namely: 47,385.

12. The compensation of employees should also be the national average taking into account the differences in compensation which may arise both between various levels of government – that is, between central, regional, state and local governments - and within the same level of government – that is, between different ministries and departments of central government or between different regional governments, state governments or local governments. Unless there are national salary scales, this can be a problem because information on the various salary scales that need to be consulted may not be readily available. Even if it is available, there is still the question of how to combine them. In principle some form of weighted average should be used.
13. One solution that may be used in the absence of national salary scales is to use only the salary scales of central government. The validity of this approach depends on the extent to which the wages and salaries paid by central government are representative of those paid by general government. Some adjustments may be necessary to make them more representative such as excluding the allowance paid to compensate for the higher costs associated with working in the capital city. But it is not a complete solution because there are occupations – such as teachers or doctors in some countries – that are only employed by regional, state or local governments and not by the central government. For the selected occupations that fall into this group, the need to refer to the salary scales of the appropriate level of government remains.

14. For international comparisons, the compensation of employees reported for the selected occupations needs to be adjusted for differences in the numbers of hours actually worked in the different countries. In addition to compensation of employees, countries are therefore required to report the number of hours regularly worked per week – excluding overtime – and the number of weeks worked per year. The latter is obtained by deducting all paid holidays including annual leave and public holidays. This information is to be supplied on the reporting form below.
ICP Collection Form for Compensation of Employees
Information to be reported for compensation of employees in general government
Instruction: Please enter the data in the gray zone

<table>
<thead>
<tr>
<th>Country Information</th>
<th>Country name</th>
</tr>
</thead>
<tbody>
<tr>
<td>226</td>
<td>Bodyguard</td>
</tr>
<tr>
<td></td>
<td>(Protecting Senior Officials)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation code number</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation description</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Bodyguard (Protecting Senior Officials)</td>
</tr>
</tbody>
</table>

**Annual compensation of employees of which:**

<table>
<thead>
<tr>
<th>Description</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gross wages and salaries paid in cash or in kind</strong></td>
<td><strong>Include:</strong> Deductions for taxes and pension, payments for housing, transportation, leave, and family allowances; also income in kind in the form of housing, food and meals and transportation. <strong>Exclude:</strong> Overtime payments</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employers’ actual and imputed social contributions</strong></td>
<td><strong>Include:</strong> Payments by government into pensions funds, insurance, and imputed contributions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total employee compensation</strong></td>
<td><strong>(Line 5 plus line 6)</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of regular hours worked per week (exclude overtime)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days worked per week (exclude overtime)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of days of annual leave per year</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of public holidays per year</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year for which data are reported (2011 or nearest year available)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Currency unit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of hours worked per day (average)</td>
<td></td>
</tr>
</tbody>
</table>

The information on hours/days worked, annual leave and holiday time off with pay is needed so that the annual compensation can be transformed into a common work year for comparison purposes across countries.
VI. Implementation process

15. To effectively implement the method above, countries are advised to entrust the relevant activities to their national accounts experts, given the tight relationship between expenditures (sum of government compensations of employee at national level) and units of same compensations as defined above. Steps to be followed are the following:

i. Identify all categories of government units in the country: central government; local government; NPIs (if possible); social security funds;

ii. Stratify government units by salary scales and collect relevant scales. All government units with the same salary scale will be grouped together. It happens that one government unit has more than one salary scale, in which case the unit will be split into as many sub-units as its number of scales;

iii. For each category of government units, collect data on the number of government employees per occupation and per grade. If possible, collect also the number of employees per occupation, per grade and per step.

iv. For each category of units [corresponding to a particular scale], make necessary adjustments to the scale so that the steps in the scale will refer to years. Where a step corresponds to one year, no adjustment is required. Where a step corresponds to 18 months, the steps will be split into sub-sets of 6 months and then re-combined into 12 months sub-sets. Where a step corresponds to 24 months, the steps will simply be repeated.

v. Determine the modal salary for each occupation under a given category.

vi. Compute the [weighted] average of all modal salaries for each occupation.

vii. Collect data on the total salaries paid by each category of government units. If these sets of data can be obtained as much detail as to be able to see total amounts paid to employees under a specific step, this will help ensure the consistency of the calculation of basic salaries as recommended in the ICP.

viii. Complete the table above for each occupation under a given category of government units.

ix. Review all the above for consistency across categories, across occupations as well as consistency between total expenditures on salaries and total amounts obtained by multiplying average modal salaries by the relevant number of employees and adding it all.
### VII. Annex

#### Government Occupations for ICP

<table>
<thead>
<tr>
<th>CODE</th>
<th>Doctor, Head of Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>Doctor, Head of Department, has the qualifications of a medical doctor and, in addition, is the senior doctor in a department which provides general medical care or carries out specialised activities such as surgery, cancer treatment, gynaecology, gerontology, medical research, blood bank. The duties of a medical doctor are described under code 103 below. Managerial responsibilities include supervision of doctors and other medical staff and planning, directing and co-ordinating activities of the department. Relevant 1988 ISCO codes:</td>
</tr>
<tr>
<td></td>
<td>2221 Medical doctors</td>
</tr>
<tr>
<td></td>
<td>1229 Production and operations department managers not elsewhere classified</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODE</th>
<th>Doctor, (20 years of seniority)</th>
</tr>
</thead>
<tbody>
<tr>
<td>102</td>
<td>Doctor, Senior Consultant is a medical doctor with special knowledge and experience in a particular area of curative or preventive medicine but he or she does not have managerial responsibilities. The duties of a medical doctor are described under code 103 below. The Doctors whose average compensation is to be reported for Code 102 must have been working as qualified doctors for about twenty years. Relevant 1998 ISCO codes:</td>
</tr>
<tr>
<td></td>
<td>2221 Medical doctors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODE</th>
<th>Doctor (10 years of seniority)</th>
</tr>
</thead>
<tbody>
<tr>
<td>103</td>
<td>Doctors provide curative treatments or preventative measures, or conduct research designed to improve or develop concepts, theories and operational methods for health services. Doctors must have qualifications that are legally recognised and which will usually require at least five years of medical training in a specialised institution. This occupation is confined to doctors who are trained in Western medicine and excludes doctors trained only in traditional medicine such as herbal cures and acupuncture. The Doctors whose average compensation is to be reported for Code 103 must have been working as qualified doctors for about ten years. Their tasks include:</td>
</tr>
<tr>
<td></td>
<td>Conducting medical examinations and making diagnoses;</td>
</tr>
</tbody>
</table>
• Prescribing and giving treatment for diagnosed illnesses, disorders or injuries;
• Giving advice on and applying preventative medicine methods and treatments;
• Conducting research into human disorders and illnesses.

Examples of the occupations classified here:
• Doctor, medical
• Physician

Relevant 1988 ISCO codes:
• 2221 Medical doctors

CODE 104 Nurse, Head of Department

*Nurse, Head of Department*, has the qualifications of a nurse and, in addition, is the senior nurse in a department which provides general medical care or carries out specialised activities such as surgery, cancer treatment, gynaecology, gerontology, etc.

The duties of a *nurse* are described under code 106 below. *Managerial responsibilities* will include supervision of nurses and other medical staff and planning, directing and co-ordinating activities of the department.

Relevant 1988 ISCO codes:
• 2230 Nursing and midwifery professionals
• 3231 Nursing associate professionals
• 3232 Midwifery associate professionals

CODE 105 Nurse, operating theatre

*Nurse, operating theatre* is a nurse with specialised skills relating to surgical operations.

The duties of a *nurse* are described under code 106 below.

Relevant 1988 ISCO codes:
• 2230 Nursing and midwifery professionals
• 3231 Nursing associate professionals
• 3232 Midwifery associate professionals

CODE 106 Nurse

*Nurses* assist doctors in their tasks, deal with emergencies in their absence, and provide professional nursing care for the sick, injured, physically and mentally disabled, and others in need of such care, or they deliver or assist in the delivery of babies, provide antenatal and postnatal care and instruct parents in baby care.

*Nurses* must have qualifications that are legally recognised. In some countries it is a requirement to have a university degree in order to be able to practice as a nurse while in other countries a lower-level educational certificate is considered sufficient. In general, a nurse should have at least two years of formal training in a specialised institution.

Their tasks include:
- Giving nursing care and treatment to ill, injured or disabled patients;
- Assisting doctors in their tasks, dealing with emergencies and giving first-aid treatment in their absence;
- Administering medicine and drugs, applying surgical dressings and giving other forms of treatment prescribed by physicians;
- Checking on general health and progress of expectant mothers during pregnancy, and giving them professional advice and care;
- Delivering babies in normal births and assisting doctors with difficult deliveries.

Relevant 1988 ISCO codes:
- 2230 Nursing and midwifery professionals
- 3231 Nursing associate professionals
- 3232 Midwifery associate professionals

### CODE 107 Nursing auxiliary

*Nursing auxiliaries* assist medical, nursing, midwifery and dental professionals in their duties.

Nursing auxiliaries may not have a legally recognised qualification. Their tasks include:
- Preparing patients for examination or treatment;
- Changing bed linen and helping patients with their toilet;
- Providing hot water bottles and other comforts for patients;
- Serving and collecting food trays and feeding patients needing help;
- Sterilising surgical and other instruments and equipment;
- Assisting dentists by adjusting lights and passing tools and materials.

Examples of the occupations classified here:
- Dental aid
- Nursing aid
- Ambulance man/woman

Relevant 1988 ISCO codes:
- 5132 Institution-based personal care workers

### CODE 108 Physiotherapist

Physiotherapists treat disorders of bones, muscles and parts of the circulatory or the nervous system by manipulative methods ultrasound, heating, laser or similar techniques, or apply physiotherapy as part of the treatment for the physically disabled, mentally ill or unbalanced.

Their tasks include:
- Conducting examinations to make diagnoses of disorders of bones, muscles and parts of the circulatory or the nervous system to determine proper treatment or refer to *Medical Doctors* as necessary;
- Treating disorders of bones, muscles and parts of the circulatory or nervous system by manipulative methods, and the use of ultrasound, heating, laser or similar techniques;
- Examining body deformities and disorders to determine and write specifications for artificial limbs or other appliances, helping to fit them and explaining their use;
- Advising communities and individuals on correct body postures, for work or otherwise, to
avoid injuries and strain, and to strengthen muscles.

Examples of the occupations classified here:
- Chiropractor
- Physiotherapist
- Podiatrist

Relevant 1988 ISCO code:
- 3226 Physiotherapists and related associate professionals

**CODE 109 Laboratory assistant**

*Laboratory assistants* perform technical tasks connected with research in life sciences.

Their tasks include:
- Preparing materials and equipment for experiments, tests and analyses;
- Collecting and preparing specimens such as plant, animal or human cells, and tissues or parts or organs for experiments and analyses;
- Assisting with and performing experiments and analyses;
- Estimating quantities and costs of materials and labour required for projects;
- Organising maintenance and repairs of research equipment.

Examples of the occupations classified here:
- Technician, bacteriology
- Technician, biochemistry
- Technician, blood bank
- Technician, pharmacology
- Technician, serology

Relevant 1988 ISCO code:
- 3211 Life science technicians

**CODE 110 Hospital Chief Executive**

*Hospital Chief Executives* determine and formulate policies and plan, direct and co-ordinate the general functioning of the hospital within guidelines set by a board of directors or a governing body, to whom they are answerable for the operations undertaken and results obtained. They may not have any medical qualifications.

Their tasks include:
- Determining and formulating policies of the hospital;
- Planning, directing and co-ordinating the general functioning of the hospital;
- Determining and directing a particular policy, through consultation with subordinate managers;
- Reviewing the operations and results of the hospital, and reporting to governing bodies;
- Representing the hospital in its dealings with outside bodies, including government or other authorities.

Relevant 1988 ISCO code:
1210 Directors and chief executives

CODE 111 Secretary (hospital)
Secretary (Hospital) carries out the duties described under Code 207 below but works in a hospital. He or she may have received formal training as a medical or hospital secretary or have acquired the necessary skills through on-the-job training.

Relevant 1988 ISCO codes:
- 4115 Secretaries
- 4111 Stenographers and typists
- 4112 Word processor and related operators

CODE 112 Cook (not Head Cook)
Cook (not Head Cook) prepares and cooks food in hospitals, schools and government offices. Head of Kitchen and Head Cooks are excluded.

Relevant 1988 ISCO codes:
- 5122 Cook

CODE 113 Community Health Worker
Community Health Workers create a bridge between households and the providers of health, social and community services. Community health workers are trained to provide basic health education and to guide those in need to locate the help available from the health system.

Their tasks include:
- Providing basic health education on topics such as: family planning; breastfeeding; HIV - AIDS; substance abuse; lead poisoning;
- Encouraging pregnant women to obtain prenatal and other health care services;
- Maintaining a relationship with families through pregnancy and during the early months of the infant’s life;
- Ensuring immunisation and health care for infants;
- Assisting families to develop skills to improve their health status and self-sufficiency.

CODE 201 Finance department manager
Finance department managers plan, direct and co-ordinate the internal financial operations of the organisation, under the broad guidance of the directors and chief executives, and in consultation with managers of other departments or sections.

Their tasks include:
- Planning, directing and co-ordinating the internal financial operations of the organisation;
- Assessing the financial situation of the organisation, preparing budgets and overseeing various financial operations;
- Controlling expenditure and ensuring the efficient use of resources;
- Overseeing the selection, training and performance of staff;
- Representing the department in its dealings with other parts of the organisation or with outside bodies.
Relevant 1988 ISCO codes:
- 1231 Finance and administrative department managers

<table>
<thead>
<tr>
<th>CODE</th>
<th>Executive Official (skill level III)</th>
</tr>
</thead>
</table>

*Executive Official (skill level III)* is a government officer who has attained skill level III, i.e. post-secondary education not equivalent a to university degree. Code 203 below refers to a government officer who has attained skill level IV, i.e. university degree or equivalent. The former will generally but not necessarily work under the supervision of the latter.

Their tasks include:
- Putting into effect, according to instructions from administrative officials, government policy decisions and implementing rules and administrative regulations;
- Taking decisions on the detailed implementation of instructions from administrative officials, subject to reference of exceptional cases for determination at higher level;
- Consulting administrative officials to obtain directives and indications of policy to be followed;
- Directing, in a local office, official services such as preparation of registers of electors, registration of births, marriages and deaths, immigration, registration of aliens admitted into the country and issue of passports;
- Undertaking executive secretarial duties for departmental heads or official committees;
- Making comparative analyses and writing reports for the responsible administrative official needing information and advice on policy questions, departmental programmes, administrative problems and other matters.

Examples of the occupations classified here:
- Executive secretary, committee
- Executive secretary, government administration
- Administrative secretary
- Official, consular
- Officer, excise
- Officer, tax
- Officer, pensions
- Officer, social benefits
- Officer, social security claims
- Inspector, prices
- Inspector, sanitary
- Inspector, wages
- Inspector, weights and measures

Relevant 1988 ISCO codes:
- 3431 Administrative secretaries and related associate professionals
- 3439 Administrative associate professional not elsewhere classified
- 3442 Tax and customs official
- 3443 Government social benefits officials
- 3449 Customs, tax and related government associate professionals not elsewhere classified

<table>
<thead>
<tr>
<th>CODE</th>
<th>Executive official (skill level IV)</th>
</tr>
</thead>
</table>

16
Executive Official (skill level IV) is a government officer who has attained skill level IV, i.e. university degree or equivalent.

The tasks performed by an Executive Official (skill level IV) are similar to those described above under code 202. They will usually be supervising one or more executive officials of skill level III and will be able to answer questions about technical or policy issues that are referred to them by executive officials of skill level III.

Relevant 1988 ISCO codes:
- 3431 Administrative secretaries and related associate professionals
- 3439 Administrative associate professional not elsewhere classified
- 3442 Tax and customs official
- 3443 Government social benefits officials
- 3449 Customs, tax and related government associate professionals not elsewhere classified

CODE 204 Computer operator

Computer operators operate computers and peripheral equipment and/or they provide assistance to users of desk top computers. They may work with main-frame computers or with distributed computing systems in which desk-top computers are linked to central server units.

Their tasks include:
- Operating and controlling peripheral and related computer equipment which is used to record, store, transmit and process digital data;
- Organising computer jobs as specified by users to ensure timely, safe and efficient execution;
- Keeping log of computing operators;
- Performing back-up operations according to regular procedures;
- Assisting users of micro-computers and standard software systems when problems occur;
- Installing new peripheral units and making necessary parameter adjustments;
- Installing, maintaining and updating computer programs by making minor changes and adjustments to them under the guidance of Computing professionals;
- Maintaining and updating documentation of computer programs and installations.

Examples of the occupations classified here:
- Operator, computer peripheral equipment
- Assistant, computer/systems analysis
- Assistant, computer/user services
- Assistant, computer/programming

Relevant 1988 ISCO codes:
- 3121 Computer assistants
- 3122 Computer equipment operators

CODE 205 Bookkeeping Clerk

Bookkeeping Clerk works under the supervision of Bookkeepers. Responsibility for maintaining records is generally restricted to one phase of an undertaking’s activities (e.g. accounts receivable; accounts payable; wages). Work typically involves verifying accuracy of relevant documents and
performing necessary calculations, and may involve making and checking entries in ledgers, including balancing them at regular intervals. May make physical checks of stocks.

Their tasks include:
- Making entries in accounting and bookkeeping records;
- Performing other limited accounting and bookkeeping functions;
- Calculating wages due from records of hours worked, or work performed by individual employees;
- Taking charge of cash and keeping records of cash transactions incidental to the business;
- Make physical checks of stocks;
- Preparing wage packets and pay wages.

Examples of the occupations classified here:
- Clerk, accounts
- Clerk, bookkeeping
- Clerk, cost computing
- Clerk, wages

Relevant 1988 ISCO codes:
- 4121 Accounting and bookkeeping clerks

**CODE 206 Data entry clerk**

*Data entry clerks* enter numerical and other data into electronic equipment for processing and transmission. Data entry may be done directly from a key board into a desk-top computer and they may also enter data on tapes or cards using punching machines.

Their tasks include:
- Entering numerical and other data from source material into computer-compatible storage and processing devices;
- Carrying out standard editing checks and correcting entered data as necessary.

Examples of the occupations classified here:
- Clerk, data entry/computer
- Clerk, data entry/converter (card-to-tape)
- Clerk, data entry/electronic mail
- Clerk, data entry/punching machine (card and tape)

Relevant 1988 ISCO codes:
- 4113 Data entry operator

**CODE 207 Secretary (not hospital)**

*Secretaries* use desk-top computers, word-processing equipment or typewriters to check and transcribe correspondence and other documents, deal with incoming and outgoing mail, screen requests for meetings or appointments, record and screen leave and other staff entitlements, organise and supervise filing systems, and deal with routine correspondence on their own initiative.

Their tasks include:
- Checking and transcribing correspondence, minutes and reports from dictation, or written
- Drafts to conform to office standards;
- Dealing with incoming or outgoing mail;
- Scanning, recording and distributing mail, correspondence and documents;
- Screening requests for meetings or appointments and helping to organise meetings;
- Screening and recording leave and other staff member entitlements;
- Organising and supervising filing systems;
- Dealing with routine correspondence on their own initiative;
- Performing related tasks.

Examples of the occupations classified here:
- Secretary
- Secretary, stenography/typing
- Secretary, typing
- Secretary, word-processing

Relevant 1988 ISCO codes:
- 4115 Secretaries
- 4111 Stenographers and typists
- 4112 Word processor and related operators

<table>
<thead>
<tr>
<th>CODE</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>208</td>
<td>Telephone switchboard operator</td>
</tr>
</tbody>
</table>

*Telephone switchboard operators* operate a telephone switchboard or a section thereof, and deal with local or long distance calls and various telephone inquiries.

Their tasks include:
- Establishing contact between caller and person called;
- Making connections for outgoing calls and routing long distance calls;
- Recording charges;
- Dealing with telephone inquiries and recording messages.

Relevant 1988 ISCO codes:
- 4223 Telephone switchboard operators

<table>
<thead>
<tr>
<th>CODE</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>209</td>
<td>Messenger</td>
</tr>
</tbody>
</table>

*Messengers* carry and deliver messages, packages and other items within an establishment or between establishments. They deliver messages either on foot or using vehicles such as bicycles and motor scooters. Their main task is delivery of items as requested by employer but they may carry out other errands. They may keep records and obtain receipts for articles delivered.

Relevant 1988 ISCO codes:
- 9151 Messengers, package and luggage porters and deliverers

<table>
<thead>
<tr>
<th>CODE</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Maintenance electrician</td>
</tr>
</tbody>
</table>

*Maintenance electricians* install, maintain and repair electrical wiring systems and related equipment in hospitals, schools or government buildings.
Their tasks include:
- Installing, maintaining and repairing electrical wiring systems;
- Installing, maintaining and repairing electrical equipment.

Examples of the occupations classified here:
- Electrician
- Electrician, building repairs

Relevant 1988 ISCO codes:
- 7137 Building and related electricians

**CODE 211 Building Caretaker**

*Building caretakers* take care of schools, hospitals or government buildings and maintain them in a clean and orderly condition.

Their tasks include:
- Regulating conduct of office-workers and visitors in such matters as noise abatement or misuse of property;
- Participating in cleaning, simple repairs and maintenance of building interiors;
- Tending furnaces and boilers to ensure provision of heat and hot water;
- Providing services such as accepting deliveries or providing requested information to callers.

Examples of the occupations classified here:
- Caretaker, building/cleaning
- Concierge, building
- Janitor

Relevant 1988 ISCO codes:
- 9141 Building caretakers

**CODE 212 Cleaner**

*Cleaners* in schools, hospitals and government offices perform various cleaning tasks in order to keep the interiors and fixtures of buildings clean and tidy.

Their tasks include:
- Sweeping or vacuum-cleaning, washing and polishing floors, furniture and other fixtures;
- Cleaning bathrooms, supplying towels, soap and related items;
- Cleaning kitchens.

Relevant 1988 ISCO codes:
- 9132 Helpers and cleaners in offices, hotels and other establishments

**CODE 213 Policeman/woman**

*Policemen/women* maintain law and order and enforce laws and regulations. Work typically involves gaining familiarity with an area and the persons living in it, noting suspicious activities, patrolling assigned area, rendering first aid, making investigations, maintaining logs of their activities and
giving evidence in legal proceedings. They generally work under supervision of police inspectors or detectives.

Their tasks include:
- Maintaining law and order;
- Protecting persons and property from hazards and unlawful acts;
- Arresting persons for contraventions of the law;
- Directing traffic and assuming authority in the case of accidents.
- Giving evidence in court;
- Maintaining records of their activities.

Examples of the occupations classified here:
- Constable
- Patrolman, police
- Patrolwoman, police
- Police officer
- River policeman/woman
- Harbour policeman/women

Relevant 1988 ISCO codes:
- 5162 Police officers

**CODE 214 Prison Guard**

*Prison guards* watch over and maintain discipline among inmates of prisons, reformatories or penitentiaries.

Their tasks include:
- Searching arriving prisoners, putting their valuables in safekeeping, escorting prisoners to cells and locking them in;
- Making periodic inspection tours of cells;
- Supervising prisoners at work, meals, or during walks and patrolling prison areas to prevent escape.

Examples of the occupations classified here:
- Guard, prison
- Warder, prison

Relevant 1988 ISCO codes:
- 5163 Prison guards

**CODE 215 Fire fighter**

*Fire fighters* prevent and fight fires, rescue persons and salvage property and goods during and after fires and major accidents.

Their tasks include:
- Preventing and fighting fires;
- Fighting special types of fires and using special equipment in industrial establishments;
• Preventing and extinguishing fires in crashed or damaged aircraft and rescuing crew and passengers;
• Rescuing persons and salvaging property and goods during and after fires and major accidents;
• Preventing or limiting the spread of dangerous substances in case of fires or accidents.

Examples of the occupations classified here:
• Fire-fighter
• Fire-fighter, aircraft accidents
• Fire-fighter, forest
• Salvageman, fire
• Salvagewoman, fire

Relevant 1988 ISCO codes:
• 5161 Firefighters

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**CODE  216  Social worker**

*Social workers* provide guidance to clients in social and related matters to enable them to find and use resources to overcome difficulties and achieve particular goals. In some countries it is a legal requirement to have a university degree in order to be able to practise as a social worker while in other countries a lower-level educational certificate is considered sufficient.

Their tasks include:
• Helping individuals and families with personal and social problems;
• Collecting information relevant to clients’ needs and advising them on their rights and obligations;
• Analysing the clients’ situation and presenting alternative approaches to resolving problems;
• Compiling case records or reports for courts and other legal proceedings;
• Planning, evaluating, improving and developing welfare services;
• Preventing delinquency or rehabilitating delinquents by organising social, recreational and educational activities;
• Helping physically and mentally handicapped persons to obtain adequate treatment and improve their ability to function in society;
• Planning, organising or providing home help services.

Examples of the occupations classified here:
• Social worker, professional
• Social worker, associate professional
• Welfare worker, professional
• Welfare worker, associate professional

Relevant 1988 ISCO codes:
• 2446 Social work professionals
• 3460 Social work associate professionals

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**CODE  217  Town planner**

*Town planners* advise on the layout of towns, landscape and traffic systems, and plan and monitor
their construction, maintenance and rehabilitation.

Their tasks include:
- Planning layout and co-ordinating development of urban areas;
- Planning and designing the development of land areas for parks, schools, airports, roadways and related projects, and for commercial, industrial and residential sites;
- Planning and advising on routing and control of road and other traffic.

Examples of the occupations classified here:
- Planner, traffic
- Planner, urban

Relevant 1988 ISCO codes:
- 2141 Architects, town and traffic planners

**CODE 218 Civil engineer**

*Civil engineers* design structures such as bridges, dams, docks, roads, airports, railways, waste disposal and flood control systems and industrial and other large buildings, and plan, organise and supervise their construction, maintenance and repair.

Their tasks include:
- Studying projects, assessing broad requirements, examining sites and determining most suitable location for structure;
- Calculating stresses and strains implicit in proposed structure, taking account of such factors as estimated load, water pressures, wind resistance, temperature fluctuations and nature of building materials to be used;
- Consulting with other specialists, such as mechanical, electrical and chemical engineers and building and landscape architects, regarding technical and aesthetic requirements;
- Designing structures and preparing costs estimates, working plans and specifications, indicating types of materials, earth-moving, hoisting and other equipment required;
- Preparing work schedules and directs operations as work proceeds;
- Planning, organising and supervising maintenance and repair work on existing structures.

Examples of the occupations classified here:
- Engineer, civil
- Engineer, civil/aerodrome construction
- Engineer, civil/bridge construction
- Engineer, civil/building construction
- Engineer, civil/highway and street construction
- Engineer, structural

Relevant 1988 ISCO codes:
- 2142 Civil engineer

**CODE 219 Draughtsman/draughtswomen**

*Draughtspersons* prepare technical drawings, maps and illustrations from sketches, measurements and other data.
Their tasks include:

- Preparing working drawings from specifications prepared by engineers and designers for the manufacture and installation of machinery and equipment or for the construction of buildings, dams, bridges, roads and other civil engineering projects;
- Operating computer-assisted drawing equipment to create, modify and generate hard copy and digital representations of working drawings.

Examples of the occupations classified here:

- Draughtsperson, architectural
- Draughtsperson, cartographic
- Draughtsperson, engineering/civi;

Relevant 1988 ISCO codes:

- 3118 Draughtsperson

**CODE 220 Construction labourer**

*Construction labourers* perform simple and routine tasks in connection with the construction and maintenance of buildings, roads, dams and similar constructions.

Tasks include:

- Digging and filling holes and trenches;
- Spreading gravel and related materials;
- Carrying bricks and mortar;
- Cleaning used building bricks and doing other simple work on demolition sites.

Examples of the occupations classified here:

- Labourer, construction
- Labourer, maintenance/dams
- Labourer, construction/buildings
- Labourer, demolition

Relevant 1988 ISCO codes:

- 9312 Construction and maintenance labourers: roads, dams and similar
- 9313 Building construction labourers

**CODE 221 Chauffeur**

*Drivers* are chauffeurs for senior government officials.

Their tasks include:

- Driving passenger cars to convey senior officials on government business, without charge;
- Cleaning and simple maintenance of their vehicles.

Relevant 1988 ISCO codes:

- 8322 Car, taxi and van drivers

**CODE 222 Agricultural Scientist**
Agricultural Scientists conduct research relating to crops and animal husbandry. Field Crops and Horticultural specialists provide both new and improved methods of cultivation and develop new and improved genetic varieties; Animal Husbandry specialists develop new and improved methods of feeding, nutrition, and develop new breeds of animals.

- Their research may concern:
  - field crops and grasses and developing new or improved cultivation methods;
  - horticultural crops and developing new or improved cultivation methods;
  - animal husbandry and developing new or improved breeding methods;
  - tree propagation and culture;
  - productivity of soils and reducing soil erosion;
  - methods for wildlife conservation;
  - reducing the impact of agriculture on the environment.

Examples of the occupations classified here:
- Agronomist
- Animal scientist
- Forestry scientist
- Horticulturist
- Soil scientist

Relevant 1988 ISCO codes:
- 2213 Agronomists and related professionals

**CODE 223 Librarian**

Librarians collect and store recorded or published material, and retrieve and provide information as requested.

Their tasks include:
- Organising, developing and maintaining a systematic collection of books, periodicals and other printed or audio-visually recorded material;
- Selecting and recommending acquisitions of books and other printed or audio-visually recorded material;
- Organising, classifying and cataloguing library material;
- Organising and administering loan systems and information networks;
- Retrieving material and providing information to business and other users based on the collection itself or on library and information-network systems;
- Conducting researching and analysing or modifying library and information services in accordance with changes in user’s needs.

Examples of the occupations classified here:
- Information scientist
- Librarian
Relevant 1988 ISCO codes:
  - Librarians and related information professionals

### CODE 224 Data-base Administrator

*Data-base Administrators* set-up and/or maintain computerised data bases containing statistics or text or both. The data-bases may relate to a wide variety of topics such as demographic or economic statistics, property ownership, births and deaths, personnel records, vehicle registrations, hospital admissions, police arrests and convictions, etc.

Their tasks include:

- Identifying user requirements;
- Designing and implementing security measures to prevent unauthorised access;
- Establishing and operating back-up systems to avoid loss of records in the event of computer failure;
- Performing, or arranging for, entry of new data;
- Editing data to detect errors and making the necessary corrections;
- Creating and maintaining documentation on the content of the data base;
- Advising users on the correct exploitation of the data-base;
- Extracting data or text in the form of tables or graphs for use in analytic reports and publications.

Examples of the occupations classified here:
  - Data-base administrator;
  - Data-base manager;

### CODE 225 Web Administrator

*Web Administrators* are responsible for maintaining the pages of Internet Sites owned by government departments, universities, hospitals etc. A *Web Administrator* is not a *Web Designer* (or *Web Master*); the latter creates Internet Sites using specialised software while the former is responsible for the content of the site.

Their tasks include:

- Updating web pages by, for example, adding information on new services or publications that have become available;
- Consulting staff in various parts of the organisation to ensure that all relevant activities and services are listed on the internet site;
- Editing texts to ensure their accuracy and that they conform to common standards;
- Keeping statistics on the frequency of use of the site;
- Keeping records of problems encountered by users;
- Liaising with the Web Designer to resolve problems of access and search-engines.

Examples of the occupations classified here:
  - Web administrator
  - Web manager
- Web developer
- Internet developers

**CODE 226  Bodyguard (protecting senior officials)**

*Bodyguards (protecting senior officials)* are responsible for ensuring the personal safety of high ranking officials in government, such as ministers or senior civil servants. They do this mainly by keeping close to officials during public engagements so as to shield them from physical attacks.

Bodyguards will normally have received training in martial arts, in the use of close-range weapons and in other security procedures.

**CODE 301  Kindergarten teacher**

*Kindergarten teachers* teach children below primary school age. Primary education typically begins at age 5, 6 or 7. In some countries it is a legal requirement to have a university degree in order to be able to practise these occupations while in other countries a lower-level educational certificate is considered sufficient. Teachers of children with special-needs are excluded.

Their tasks include:
- Planning and organising activities designed to facilitate the children’s development of physical and social skills;
- Promoting language development through story-telling, role-play, songs, rhymes and informal conversations and discussions;
- Observing children in order to evaluate and discuss progress and possible problems with parents;
- Supervising children’s activities to ensure safety and resolve conflicts.

Examples of the occupations classified here:
- Teacher, pre-primary education/professional
- Teacher, pre-primary education/associate professional
- Teacher, nursery/associate professional

Relevant 1988 ISCO codes:
- 2332  Pre-primary education teaching professionals
- 3320  Pre-primary education teaching associate professionals

**CODE 302  Primary teacher**

*Primary teachers* teach a range of subjects at the primary education level. Primary education typically begins at age 5, 6 or 7 and lasts about 5 years. In some countries it is a legal requirement to have a university degree in order to be able to practise these occupations while in other countries a lower-level educational certificate is considered sufficient. Teachers of children with special-needs are excluded.

Their tasks include:
- Supervising pupils in classroom and in other areas of the school;
- Preparing a programme of learning and giving instruction in areas such as reading, writing,
arithmetic and other subjects, within a prescribed curriculum;

- Preparing, administering and marking tests, projects and assignments to train pupils and to
  evaluate their progress;
- Organising and supervising pupils’ extra-curricular activities;
- Discussing their progress with parents and head teacher.

Examples of the occupations classified here:

- Teacher, primary education/professional
- Teacher, primary education/associate professional.

Relevant 1988 ISCO codes:

- 2331 Primary education teaching professional
- 3310 Primary education teaching associate professional

**CODE 303 Secondary teacher**

Secondary teachers teach one or more subjects for educational or vocational purposes at some or all
levels between the termination of primary education and the beginning of studies at colleges or
universities. Teaching children with special needs and teaching reading, writing and other primary
subjects to adults are excluded.

Their tasks include:

- Giving lessons in their subjects and supervising pupils’ class work and discipline;
- Preparing, assigning and correcting exercises;
- Administering and marking tests and examinations to evaluate pupils’ progress;
- Preparing reports about pupils’ work and conferring with other teachers and parents;
- Organising or assisting with extra-curricular activities such as debating societies or hobby
  clubs;
- Designing and modifying curricula and preparing educational and vocational courses of
  study.

Examples of the occupations classified here:

- Teacher, secondary education
- Teacher, secondary education/vocational training.

Relevant 1988 ISCO codes:

- 2320 Secondary education teaching professionals
- 2320 University lecturer teaching professionals

**CODE 304 University lecturer**

University lecturers teach at universities and similar institutions of higher learning. Their students
have completed secondary education and may be undergraduates or post-graduates. They also carry
out research and prepare scholarly papers and books.

Their tasks include:

- Designing and modifying curricula and preparing courses of study in accordance with
  requirements;
- Delivering lectures and conducting tutorials, seminars and laboratory experiments;
• Supervising experimental and practical work undertaken by students;
• Administering, evaluating and marking examination papers and tests;
• Directing research of post-graduates students.

Examples of the occupations classified here:
• Lecturer, college
• Lecturer, university

Relevant 1988 ISCO codes:
• 2310 College, university and higher education teaching professionals

**CODE 305 Head teacher**

A *Head Teacher* is the senior teacher with managerial responsibilities for the school. Includes *Head Teachers* at kindergarten, primary and secondary schools.

Their tasks include:
• Managing the budget;
• Recruitment and staff training;
• Liaison with the parents;
• Designing and adapting the curriculum in accordance with government guidelines;
• Fund-raising;
• Teaching (the tasks of a teacher are described under codes 301 to 303 above).

Examples of the occupations classified here:
• Head teacher;
• Headmistress;
• Headmaster.

Relevant 1988 ISCO codes:
• 1229 Production and operations department managers not elsewhere classified

**CODE 401 Army: Private of Infantry**

The occupation *Private of Infantry* refers to regular members of the armed forces who have voluntarily joined the army; it excludes conscripts who are enrolled for military service on a compulsory basis.

This occupation excludes privates of specialist regiments such as: artillery; cavalry; sappers; engineers; parachutists; signallers; tank corps; pay corps; supply corps.

This occupation corresponds to the rank OR-2 in the International/NATO military ranking code. The OR-1 rank is the entry or recruitment rank and a *Private of Infantry* of rank OR-2 will have completed basic training in the use of rifles and other infantry weapons, parade-ground drill, marching and fighting under simulated battle-field conditions, and maintenance of personal and military equipment.

**CODE 402 Army: Commander of Infantry Regiment**
The occupation *Commander of Infantry Regiment* refers to regular members of the armed forces who have voluntarily joined the army; it excludes conscripts who are enrolled for military service on a compulsory basis.

This occupation excludes commanders of specialist regiments such as: artillery; cavalry; sappers; engineers; parachutists; signallers; tank corps; pay corps; supply corps.

This occupation corresponds to the rank OF-4 in the International/NATO military ranking code. Equivalent terms are: *Lieutenant Colonel* in America and Britain, *Teniente coronel* in Spain, *Lieutenant-Colonel* in France, *Oberstleutnant* in Germany and *Podpolkovnik* in Russia. See [http://en.wikipedia.org/wiki/Comparative_military_ranks](http://en.wikipedia.org/wiki/Comparative_military_ranks) for equivalent ranks in other countries.

**CODE 403 Navy: Able Seaman**

The occupation *Able Seaman* refers to regular members of the armed forces who have voluntarily joined the armed forces; it excludes conscripts who are enrolled for military service on a compulsory basis.

This occupation corresponds to the rank OR-2 in the International/NATO military ranking code. The OR-1 rank is the entry or recruitment rank and an *Able Seaman* of rank OR-2 will have undergone a period of training during which he or she will have learned to keep watches at sea, to handle mooring lines, to steer the ship under instructions, to perform deck and hull cleaning and painting. Training may also include the operation of anti-submarine or anti-aircraft weapons, torpedoes or surface-to-surface guns or missiles.

**CODE 404 Navy: Commander of Frigate**

The occupation *Commander of Frigate* refers to regular members of the armed forces who have voluntarily joined the armed forces; it excludes conscripts who are enrolled for military service on a compulsory basis.

*A frigate* is a warship that is larger than a *corvette* and smaller than a *destroyer*. It will usually be equipped with one or more of the following types of weapons: guns or missiles for anti-aircraft or surface-to-surface use; anti-submarine devices; torpedoes.

This occupation corresponds to the rank OF-4 in the International/NATO military ranking code. Equivalent terms are: *Commander* in America and Britain, *Capitán de fragata* in Spain, *Capitaine de Fregate* in France, *Lieutenant Colonel* in Singapore, *Fregattenkapitän* in Germany and *Kapitan vtorogo ranga* in Russia. See [http://en.wikipedia.org/wiki/Comparative_military_ranks](http://en.wikipedia.org/wiki/Comparative_military_ranks) for the equivalent terms in other countries.

**CODE 405 Air Force: Airman (ground crew)**

The occupation *Airman (ground crew)* refers to regular members of the armed forces who have voluntarily joined the armed forces; it excludes conscripts who are enrolled for military service on a compulsory basis.

This occupation corresponds to the rank OR-2 in the International/NATO military ranking code. The OR-1 rank is the entry or recruitment rank and an *Airman (ground crew)* of rank OR-2 will have been trained in one or more of the following skills: fitting, examining, testing and servicing aircraft
engines; replacing engine components or complete engines; servicing and arming guns and air-to-air or air-to-surface missiles; maintenance of navigation, radar and other detection devices.

<table>
<thead>
<tr>
<th>CODE</th>
<th>406</th>
<th>Air Force: Fighter Pilot/Wing Commander</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The occupation <em>Wing Commander</em> refers to regular members of the armed forces who have voluntarily joined the armed forces; it excludes conscripts who are enrolled for military service on a compulsory basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A <em>Wing Commander</em> will be a qualified pilot and will have received training in aircraft weapons systems and detection devices as well as in navigation and control of the aircraft. A <em>Wing Commander</em> leads and directs two or more squadrons of combat aircraft.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>This occupation corresponds to the rank OF-4 in the International/NATO military ranking code. Equivalent terms are: <em>Lieutenant Colonel</em> in America, <em>Wing Commander</em> in Britain, <em>Teniente Coronel</em> in Spain, <em>Lieutenant Colonel</em> in Singapore, <em>Oberstleutnant</em> in Germany, and <em>Podpolkovnik</em> in Russia. See <a href="http://en.wikipedia.org/wiki/Comparative_military_ranks">http://en.wikipedia.org/wiki/Comparative_military_ranks</a> for the equivalent ranks in other countries.</td>
</tr>
</tbody>
</table>
Annex 2:

**Questionnaire on Compensation of Employees in Government**  
(Country _____________________)

The information from this questionnaire is used to calculate Purchasing Power Parities for *Government Final Consumption Expenditure*. In a separate attachment you will find descriptions of ten occupations for which you are requested to provide the following information on compensation of employees and the numbers of hours and days worked by employees in these occupations.

<table>
<thead>
<tr>
<th>Questionnaire on Compensation of Employees in Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupation code number</td>
</tr>
<tr>
<td>Occupation description</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Gross wages and salaries in cash</td>
</tr>
<tr>
<td><em>plus</em> Employers’ actual social contributions</td>
</tr>
<tr>
<td><em>plus</em> Employers’ imputed social contributions</td>
</tr>
<tr>
<td><em>plus</em> Income in kind: housing</td>
</tr>
<tr>
<td><em>plus</em> Income in kind: food and meals</td>
</tr>
<tr>
<td><em>equals</em> Annual compensation of employees</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Number of regular hours actually worked per week</td>
</tr>
<tr>
<td>Number of days of annual leave per year</td>
</tr>
<tr>
<td>Number of public holidays per year</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Year for which data are reported</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Currency unit</td>
</tr>
</tbody>
</table>
Explanatory notes

This questionnaire refer to employees of central government and should be national averages of compensation of employees for the persons in each occupation who are paid from the central government budget in the capital city and in other cities or rural areas. In some countries certain types of employees – e.g. teachers or the police – may be paid only from state or local government budgets; in this case you should provide compensation of employees for persons employed from these budgets.

Occupation code number and occupation description are taken from the list of Government Occupations for ICP.

Gross salaries and wages in cash are to be reported before deduction of taxes and social contributions payable by employees. They consist of two components:

- Basic salaries as laid down in the salary scale. The Box below explains how salary scales are used to obtain basic salaries.
- Other payments, over and above the basic salary, such as: housing or residence allowance, passage or leave allowance, family allowance, special duty allowance or acting allowance, 13th month pay and other cash payments, but not overtime payments. These payments over and above the basic salary are usually a fixed percentage of the basic salary.

Employers' actual social contributions are payments made by general government for the benefit of their employees and cover contributions for old age pensions, and for insurance against sickness, accident and disability.

Imputed social contributions represent the counterpart to social benefits paid directly by general government institutions without participating in, or establishing a fund, reserve or other special scheme for this purpose. Since these contributions do not involve actual cash flows, they have to be imputed. The imputations have to be done in line with the corresponding imputations made in the national account.

Income in kind: housing is the cost to the employer of providing free or subsidised housing to employees.

Income in kind: food and meals is the cost to the employer of providing free or subsidised food or meals to employees.

Number of regular hours actually worked per week.

- The number of regular hours excludes overtime.
- The number of hours worked excludes time allowed for lunch or prayer breaks.
- In some countries government employees are paid such low wages that they are allowed to work less hours than are stipulated in their contracts in order that they can earn extra money in a second job. In such cases, please record the usual number of hours actually worked.

Number of days of annual leave per year refers to paid leave. It excludes days that may be allowed for paid sick leave, maternity leave, compassionate leave, or public holidays.

Number of public holidays per year refers to the number of public holidays such as bank holidays, religious festival days, independence days, and any other regular holidays that are declared to commemorate special events.
Determining the basic salary for a selected occupation using a salary scale

<table>
<thead>
<tr>
<th>Grades and Categories</th>
<th>Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>P4</td>
<td>88,900</td>
</tr>
<tr>
<td>P3</td>
<td>76,800</td>
</tr>
<tr>
<td>P2</td>
<td>66,100</td>
</tr>
<tr>
<td>P1</td>
<td>53,600</td>
</tr>
<tr>
<td>T4</td>
<td>47,900</td>
</tr>
<tr>
<td>T3</td>
<td>41,200</td>
</tr>
<tr>
<td>T2</td>
<td>35,500</td>
</tr>
<tr>
<td>T1</td>
<td>31,100</td>
</tr>
<tr>
<td>W4</td>
<td>34,700</td>
</tr>
<tr>
<td>W3</td>
<td>31,300</td>
</tr>
<tr>
<td>W2</td>
<td>28,400</td>
</tr>
<tr>
<td>W1</td>
<td>25,700</td>
</tr>
</tbody>
</table>

1. Employees in public administrations are usually paid on the basis of a salary scale such as in the table shown above. In this example, the scale is divided into grades – P, T and W. Grades generally correspond to levels of education or skills.

2. Within grades there are categories (four in this example) and each category is itself divided into steps - 1 to 7 in this example. Each step is usually 12 months, though steps of 18 or 24 months are not uncommon. For each selected occupation the category that is most representative in each country is to be identified. Representative here means the modal category associated with the selected occupation. The appropriate step within the category is determined by the seniority specified for the selected occupation.

3. Take, for example, a Draughtsman – occupation number 219 in the list of Government Occupations for ICP. If the distribution of Draughtsmen is 15 per cent T1, 25 per cent T2, 35 per cent T3, 20 per cent T4 and 5 per cent P1, then T3 is selected as the modal category.

4. Unless the years of seniority are stated in the occupation description, 5 years seniority should be used to determine the annual salary. Thus if each step is 12 months, the salary for category T3 with five years seniority will be 46,800 (equivalent to five steps). But if each step was 18 months or 24 months, five years seniority would be equivalent to four steps and a salary of 45,400 in the case of 18 month steps and to three steps and a salary of 44,000 in the case of 24 month steps.