

Survey on country profiles

Final report



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SURVEY ON COUNTRY PROFILES FINAL REPORT

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PREFACE

The perspective of an enlargement of the EU to 25 member states in May 2004 and the growing demand of the European Commission regarding reliable time series in education finance statistics, but also the need to have comprehensive information of the funding mechanisms of education beyond what is being reported in the finance tables of the UOE data collection, made it a necessity to evaluate the quality of education finance data of the UOE data collection.

The main objective of the underlying report is to evaluate to what extent countries are able to comply with some definitions of the UOE instruction manual. Results from previous comparability studies will be used as a starting point.

The conclusions of the report are based on the one hand on the results from previous comparability studies and on the other hand on data collected through the survey on country profiles.

Clearly, the information obtained through the questionnaires is essential for several reasons:

- It will permit to interpret more precisely and correctly the indicators on education finance derived from the finance tables,
- It could be used as an effective tool for international organisations to discuss on a bilateral basis with national data providers what could be improved to comply with international definitions and therefore to further strengthen international comparability of finance data,
- It will be a useful information source when considering an inclusion of new variables on finance in future revisions of the UOE data collection or optimising some of the existing variables.

A. INTRODUCTION

The survey on country profiles was conceptualised to evaluate whether on the one hand some comparability problems that had been identified previously in 2 OECD Finance Comparability Studies have been successfully solved by countries in the meantime, on the other hand certain questions intended to get more information on the funding mechanisms of education beyond what is being reported in the finance tables of the UOE data collection. Therefore, some questions were focussed to gather additional metadata, while others were clearly checking how certain variables are reported in the finance tables.

In total, 34 countries participated to the survey on country profiles. 30 countries filled out the long version of the questionnaire. 4 non-European OECD countries (USA, Japan, Australia and Mexico) opted for the short version of the questionnaire.

The underlying report is based on some key results of the survey on country profiles. Its main objective is to evaluate to what extent countries are able to comply with some definitions of the UOE instruction manual. Results from previous comparability studies will be used as a starting point:

- to see whether countries have further improved the quality of certain variables and
- to explain the consequences an incomplete coverage of certain financial data has on the interpretation of indicators relying on these data.

Therefore, a transversal analysis has been made taking into account extensively the results and recommendations of the two first OECD Comparability Studies. Following the modular structure of the questionnaire, the main aspects of all eight modules will be presented.

The impact of the findings on education finance indicators has been evaluated for each module. Based on the outcome of the evaluation next steps are proposed. These are summarised in the final chapter. At this stage it is intended to broadly discuss with national and international experts whether these proposals are meaningful and to agree on which of these steps could be implemented. Some of these steps could be included in the currently ongoing revision process of the UOE data collection.

The annex is describing the methods to impute social contributions that different Member States are using when delivering such data to the National Accountants in EUROSTAT.

B. MAIN FINDINGS OF THE COMPARABILITY STUDIES FROM OECD:

B.1. First Comparability Study:

B.1.a. Some context information:

The First Comparability study¹ took place between 1992 and 1996. The work was carried out in close collaboration with the OECD Indicators of Education Systems (INES) project. The reference year that was analysed was the financial year 1991 that was collected in 1992-93. 10 countries (Australia, Austria, Canada, France, Germany, the Netherlands, Spain, Sweden, the United Kingdom, and the United States) participated. It was undertaken to assess:

- The validity of international comparisons based on expenditure statistics compiled by OECD and UNESCO,
- The implications of deviations from comparability, and
- Prospects and options for making international expenditure statistics more comparable in the future.

The study identified a number of conceptual and reporting problems that raised questions concerning the comparability of finance data reported in the first two editions of Education at a Glance (see Barro 1997; Sherman 1997). While this study focused on data supplied for the second edition of Education at a Glance, its preliminary findings also fed into the redesign of the 1995 UOE finance questionnaires.

The study was the base layer for identifying comparability problems and hence improving data quality. Therefore its findings are of fundamental importance and had impacts on the Second Comparability Study and on the survey on country profiles that can be considered as additional layers towards the objective of obtaining high-quality statistics on education finance.

It explains why this report emphasises on the findings of the principal comparability problems already identified in the First Comparability Study and partially reassessed in the Second Comparability Study and the survey on country profiles.

It is understood that many of the areas of incomparability addressed in table 1 below have been resolved in the meantime through efforts from data providers and data requesters. Important efforts were made in the past years to substantially improve the framework, concepts and the accuracy of the definitions on education finance. Moreover, the finance tables have been significantly enhanced.

¹ It was sponsored by the U.S. National Center for Education Statistics (NCES). The study was conducted by SMB Economic Research, Inc. and the Pelavin Research Institute (formerly Pelavin Associates, Inc.).

B.1.b. Identified comparability problems:

The following comparability issues were identified in the first finance comparability study. They are reported in the table below.

Table 1: principal comparability problems affecting comparisons of magnitudes of education expenditure²:

Comparability problem	Level(s) directly affected (those less affected shown in parentheses)
Omission of private expenditures	All
Omission of expenditures of certain public agencies and institutions	All
Incomplete coverage of costs of support functions	All levels below tertiary
Omission or inconsistent reporting of expenditures for ancillary services	All
Inconsistent coverage and measurement of retirement expenditures	All
Omission of expenditures for other employee benefits	All
Inconsistent durations of, and boundaries between, levels of education	Primary, lower-secondary, upper-secondary, (tertiary)
Reporting of expenditures as not allocated by level	All
Inconsistent definitions of the scope of pre-primary education	Pre-primary
Omission of expenditures for apprenticeship and other work-based	Upper-secondary, (tertiary) training
Inconsistent coverage of adult, continuing, and other "non-regular"	Upper-secondary, tertiary education (primary, lower-secondary)
Inconsistent coverage of expenditures for research	Tertiary
Unwarranted inclusion of expenditures for teaching hospitals	Tertiary
Inconsistent coverage of financial aid and subsidies for student living expenses	Tertiary, (upper-secondary)
Inconsistent measurement of full-time-equivalent enrolment	Tertiary, pre-primary
Mismatches between expenditure and enrolment figures	All

Some of these issues were re-examined in the second finance comparability study in order to assess:

- The degree to which they remained problematic issues in the existing data collection and
- How data comparability in these areas could be further improved.

² Source: International Education Expenditure Comparability Study: Final Report Volume I, NATIONAL CENTER FOR EDUCATION STATISTICS Working Paper Series, Working Paper No. 97-16 May 1997

B.2. Second Comparability Study

B.2.a. Some context information

22 countries³ participated at the Second Comparability Study. It took place during 2000 and 2001.

The purpose of the Second Finance Comparability Study was to identify remaining comparability problems, assist countries in modifying their data submissions to better match the UOE finance instructions and to identify areas where the existing finance instructions in the UOE data collection manual needed to be clarified or improved.

B.2.b. Identified comparability problems and actions undertaken:

The Second Finance Comparability Study was mainly organised around the topics indicated below. The selection of these topics was in particular driven by the expected impact of the comparability problems related to them on the existing set of the OECD indicators on educational finance. Several of the proposed comparability issues had already been identified in the first finance comparability study and needed to be revisited.

Table 2: identified comparability problems in the Second Comparability Study and actions undertaken

Identified comparability problems	Actions undertaken
Expenditure on retirement and other fringe benefits	Inclusion of a reference to the imputed social contributions of the National Accounts manual ESA 95
Ancillary services	Inclusion of rows to collect ancillary services separately by source of funds (in table finance 1) and by type of institution (in table finance 2)
Financial aid to students	Separation of subsidies for tuition fees and for student living costs in the table finance 1
Household expenditure outside educational institutions	Improvement of the definition of educational goods and services by distinguishing between purchases imposed and purchases not imposed by institutions
Research expenditure in tertiary education	<ul style="list-style-type: none"> • Inclusion of a new finance table (finance SUP 3) to enable the separation of teaching and research expenditure in tertiary education and to check the consistency of the reporting of R&D expenditure in the UOE data collection and Science, Technology and Innovation statistics, • Alignment to the definitions of the Frascati Manual

³ Australia, Austria, Belgium (Flemish Community), Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Israel, Korea, Luxembourg, Mexico, the Netherlands, Norway, Spain, Sweden, Switzerland, United Kingdom, and the United States.

B.3. Conclusions of the Second Comparability Study

The study:

- Investigated the degree to which comparability issues identified in the first study had been resolved;
- Evaluated the alignment between finance instructions in the UOE and countries' reporting practices;
- Identified the specific definitional problems and reporting practices that continued to cause the greatest concerns regarding comparability;
- Proposed specific methodologies (e.g. estimation techniques or special data collections) that would improve countries' ability to align their data to the finance instructions;
- Proposed modifications to the existing UOE finance instructions and questionnaires in order to improve the comparability of reported statistics on education expenditure; and
- Improved the reporting framework for indicators on educational finance published by OECD.

On the basis of the main findings of the Second Comparability Study the actual framework for reporting educational expenditure, the actual scope of education and new instructions with new/modified finance tables had been implemented in the UOE data collection 2001.

C. RELATIONSHIP BETWEEN THE OECD COMPARABILITY STUDIES AND THE EUROSTAT SURVEY ON COUNTRY PROFILES:

Despite the different approaches used in the Comparability Studies and in the survey on country profiles, the main objective of the three projects is very similar: to improve the quality of education finance statistics. Therefore, it is not surprising that there are strong relationships between the Comparability Studies and the survey on country profiles.

Even if country profiles is not a project limited to the evaluation of the progress of countries as regards the implementation of definitions and concepts of the UOE data collection, certain questions were clearly intended:

- To assess whether certain variables which are particularly important to ensure spatial comparability have been met,
- To identify accurately areas in which further methodological work needs to be undertaken.

C.1. Relationship between the First Comparability Study and the survey on country profiles:

Table 3: Relationship between the First Comparability Study and the survey on country profiles:

First comparability study	Checked through the survey on country profiles?	
	Yes/no/ partly	Module number
Omission of private expenditures	Yes	Module 7 and 8
Omission of expenditures of certain public agencies and institutions	No	
Incomplete coverage of costs of support functions	No	
Omission or inconsistent reporting of expenditures for ancillary services	Yes	Module 5
Inconsistent coverage and measurement of retirement expenditures	Yes	Module 3
Omission of expenditures for other employee benefits	No	
Inconsistent durations of, and boundaries between, levels of education	No	
Reporting of expenditures as not allocated by level	No	
Inconsistent definitions of the scope of pre-primary education	Partly	Module 5
Omission of expenditures for apprenticeship and other work-based	Yes	Module 7
Inconsistent coverage of adult, continuing, and other "non-regular"	No	
Inconsistent coverage of expenditures for research	No	
Unwarranted inclusion of expenditures for teaching hospitals	No	
Inconsistent coverage of financial aid and subsidies for student living expenses	Yes	Module 6
Inconsistent measurement of full-time-equivalent enrolment	No	
Mismatches between expenditure and enrolment figures	No	

Moreover, some aspects of modules I and II were also indirectly addressed in the First Comparability Study (e.g. the classification of expenditure by level of government or the precision of the definition on intergovernmental transfers).

C.2. Relationship between the Second Comparability Study and the survey on country profiles:

Table 4: Relationship between the Second Comparability Study and the survey on country profiles:

Second comparability study	Checked through the survey on country profiles?	
	Yes/no	Module number
Expenditure on retirement and other fringe benefits	Partly (only expenditure on retirement)	Module 3
Ancillary services	Yes	Module 5
Financial aid to students	Yes	Module 6
Household expenditure outside educational institutions	Yes	Module 4
Research expenditure in tertiary education	No	

D. SURVEY ON COUNTRY PROFILES: GENERAL INFORMATION

D.1. Survey methodology:

EUROSTAT developed a draft questionnaire on country profiles which was discussed with countries at the last meeting of the UOE subgroup in September 2003. Based on the comments made by countries the questionnaire was finalised.

The survey was discussed at a INES TG meeting⁴ of OECD in December 2003. There, it was proposed to use a short version of the questionnaire for non European OECD countries. The questionnaire was limited to modules 3 to 7.

The survey took place from November 2003 to February 2004.

First results were presented in May 2004 at the INES TG meeting of OECD.

A more detailed analysis of the results was undertaken from July to September 2004.

⁴ INES TG is an abbreviation for the Indicators of Education Systems (INES) Technical Group.

D.2. Objectives:

D.2.a. Short-term:

- To check the progress and success of implementation of new UOE methodology (for *EU 15 and EEA/EFTA countries*);
To check the comparability of data with EU 15 countries (for *acceding and candidate countries*).
- To draw conclusions on the completeness of the structural indicator and the SGIB objective indicators.
- To see what need still to be improved, clarified or simplified in the UOE data collection manual.

D.2.b. Mid-term:

- To develop "country profiles" as a standard metadata information system having as starting point the results of the survey and country reports of the Second Finance Comparability Study made by OECD in 2000.
- To create metadata for SGIB objective indicators and other indicators for all countries. These metadata will be included in the indicators domain in the Eurostat reference database New Cronos.

D.2.c. Long-term:

- To explore the next steps of the enlargement of UOE coverage as well as modification of methodology (i.e. tax reductions or credits, gross vs. net loans etc.).
- To have a starting point, to be able to better examine the possibilities to closer adapt the UOE data collection to the National Accounts.
- To develop composite indicators (e.g. by summing up the total expenditure on education, the expenditure on continuous vocational training of enterprises etc.).

D.3. Coverage of the survey on country profiles:

The coverage of the survey is reflected by the structure of the questionnaire. The questionnaire consisted of eight different modules. Every module was corresponding to an area in which comparability problems across countries and time had already been identified. All modules are listed in the table below.

Table 5: Modules of the questionnaire on country profiles:

Module	Area
Module 1	Type of expenditure by level of government and by type of expenditure
Module 2	Intergovernmental transfers earmarked for education
Module 3	Type of expenditure (expenditure for retirement and capital expenditure)
Module 4	Household expenditure
Module 5	Ancillary services
Module 6	Financial aid to pupils/students
Module 7	Payments of private enterprises for specified educational activities
Module 8	Financing of educational institutions

D.4. Participation:

In total, 34 countries⁵ participated to the survey on country profiles. 30 countries filled out the long version of the questionnaire. 23 EU member states participated (only Malta and Slovenia did not participate). Moreover 2 EFTA/EEA countries (Norway and Switzerland), all four candidate countries (Bulgaria, Croatia, Romania, Turkey) and Serbia and Montenegro returned questionnaires. 4 countries (USA, Japan, Australia and Mexico) opted for the short version of the questionnaire.

⁵ The Flemish and French Communities of Belgium are generally referred as Belgium. A distinction will only be made when a feature of the questionnaire on country profiles applies only in one of the two Communities. In case a feature is only present for the French Community the result will be displayed as Belgium (only French Community). In case a feature is only present for the Flemish Community the result will be displayed as Belgium (only Flemish Community).

E. MODULE I: TYPE OF EXPENDITURE BY LEVEL OF GOVERNMENT AND BY LEVEL OF EDUCATION:

E.1. What was requested?

The correspondence between levels of government in UOE data collection (i.e. central, regional, local) and NUTS classification (Nomenclature of Territorial Units for Statistics) is an information requested by EUROSTAT.

Moreover, it is important for EUROSTAT to know whether a level of government does not exist in a country or can not be reported in the UOE data collection, as this is resulting in incomplete coverage of all indicators using public expenditure on education.

Furthermore, background information is required on what the different levels of government are paying for.

E.2. Identifications from previous comparability studies:

The First Comparability Study proposed to use a central-regional-local classification of public-sector funding sources implicitly assuming a three-layer structure of government, which does not exist in all countries. Where only two levels of government are involved in education finance (as in the United Kingdom), it may not be clear whether the lower-level units should be considered regional or local. Where there are four levels (as in Italy, where there are both provinces and larger regions), the regional-local distinction again can become blurred. The recommendations are still included in the actual version of the UOE data collection manual for the reference year 2004.

E.3. What has been evaluated for this report?

The evaluation is limited to question I.1) which may be important for the identification of major data gaps in total public expenditure on education. Which levels of government are involved in the funding of education and whether current and capital expenditure of all levels of government involved are reported in the UOE data collection is of importance to broadly assess the completeness of total public expenditure on education.

However, the information is not sufficient to evaluate precisely whether countries are reporting comprehensively their expenditure by level of government. Questions I.2) to I.4) were rather intended to gather information on what type of expenditure are financed by the different levels of government. The information surveyed will be used as metadata.

E.4. Definition in the UOE instructions manual:

Public expenditure refers to spending of public authorities at all levels (i.e. central, regional and local levels of government).

The sections on government expenditure (see section 6.2.2.1 of the UOE instruction manual) distinguish between different levels of government. All government sources (apart from international sources) should be classified in three levels:

- Central (national) government
- Regional government (province, state, Land, etc.)
- Local government (municipality, district, commune, etc.).

Remarks:

- **Ambiguities of classification:** The classification of governments by level is clear in most cases, but there are some ambiguities. If a country only has two levels of government, the lower level usually must be designated local, not regional. If there are four or more levels, the second level usually must be designated regional and the third, local. If a city (such as the national capital) has dual status as both regional and local government, its expenditure is reported as expenditure of regional level of government (e.g. the Stadtstaaten Hamburg, Bremen and Berlin in Germany).

- **Regional and local government responsibilities:** The terms “regional” and “local” apply to governments whose responsibilities are exercised within certain geographical subdivisions of a country. They do not apply to government bodies whose roles are not geographically circumscribed but are defined in terms of responsibility for particular services, functions, or categories of students.

E.5. Current reporting practice:

In all 30 countries which answered to question I.1) the central level of government is to some extent involved in the funding of education. In Cyprus the central government is exclusively contributing to the public budget on education.

It is noteworthy that in eleven of the participating countries the regional level of government is not existing or not involved in the funding of education. It is the case in the Member States Estonia, Ireland, Cyprus, Latvia, Lithuania, Luxembourg, Slovak Republic, Finland and the United Kingdom as well as in the candidate countries Bulgaria and Romania.

28 countries report that local governments finance education.

All respondents except Portugal and Turkey report all levels of government involved in the funding of education in the UOE data collection. The local expenditure on education from Portugal and most regional expenditure on education and all local expenditure on education from Turkey are missing. Norway reports⁶ its regional expenditure under the expenditure of local level of government at upper-secondary level of government.

E.6. Impact on indicators in education finance:

Public expenditure on education is included in most indicators on education finance statistics. Moreover, it is used in the structural indicator “spending on human resources”. Therefore, it is particularly important that all levels of government involved in the financing of education are fully reported.

E.7. Evaluation and next steps:

Generally, data reported on public expenditure and broken down by level of government are quite complete. Hence, no major data gaps as regards public expenditure from all levels of government are remaining in most countries reporting finance data in the UOE data collection.

The instructions in the UOE manual regarding the classification of public expenditure by level of government are comprehensive and clear. No revision is necessary.

Portugal and Turkey should take all necessary steps to ensure the reporting of public expenditure for all levels of government in the mid-term.

⁶ Country report 2nd Finance Comparability Study – Norway.

F. MODULE II: INTERGOVERNMENTAL TRANSFERS EARMARKED FOR EDUCATION:

F.1. What was requested?

More information on intergovernmental transfers is necessary because some countries may for the time being be unable to single out the flows of funds transferred for educational purposes from one level of government to another.

If intergovernmental transfers exist, can not be reported and are included both at the level of paying and receiving the funds then double counting would occur and therefore public expenditure on education would be inflated.

When intergovernmental transfers are missing, the indicator showing the initial and final funds by level of government is affected as it can not be reasonably interpreted.

F.2. Identifications from previous comparability studies:

The First Comparability Study identified inconsistencies in the reporting of intergovernmental transfers. In fact, it was not clear how to report general purpose intergovernmental transfers. This blurred the data reported as intergovernmental transfers and hence had an immediate impact on the concepts of initial and final sources of funds. In order, to eliminate that source of incomparability the definition of intergovernmental transfers was precised in the sense to only consider intergovernmental transfers earmarked for education. It was included for the first time in the 1995 UOE data collection.

F.3. What has been evaluated for this report?

The evaluation is taking into account the responses to questions II.1), II.2), II.3) and II.5).

It will first account on which countries do not rely on any intergovernmental transfers earmarked for education. Then, it will examine whether countries can report all intergovernmental transfers earmarked for education flowing between different levels of government. Finally, when intergovernmental transfers can not be reported, it will verify that the non-separation is neither implying double counting nor non-reporting of these transfers.

F.4. Definition in the UOE instructions manual:

“**Intergovernmental transfers**” (see section 6.2.2.3 of the UOE data collection manual) are transfers of funds designated for education from one level of government to another. They are defined as **net transfers from a higher level to a lower level of government**.

Every transfer from one level to another level needs to be reported as expenditure at the level of government receiving the funds. The design of the UOE table ensures that double counting in total expenditure by all level of government (G1 to G20) is avoided. Expenditure that is only reported as a transfer, but not as expenditure at the receiving level of government is to be excluded from the totals.

☞ For example, the regional authorities spend from their own sources 100 million LCU on educational institutions, and receive an additional 200 million LCU as transfers from the Ministry of Education for expenditure on educational institutions. The ministry also spends 50 million LCU directly on educational institutions. In that case 200 million LCU should be reported in row C7 as a transfer, 300 million LCU (200+100) should be reported as spending by the regional level on educational institutions in row R5 and 50 million LCU as central spending in row C5. The total public spending on institutions (row G5) will be calculated as to 350 million LCU, C5 plus R5.

Net transfers payments for education from central to regional government should be reported in row C7, central to local transfers should be reported in row C8, and total central government transfers (C7 + C8) should be reported in row C9. Transfers from regional to local government should be reported in row R8.

Remarks:

Negative transfers: It appears, however, that in a few situations (specifically in the Nordic countries), transfers from local to regional authorities may be greater than transfers from regional to local authorities. Where such situations occur, the resulting net flows of funds should be reported as **negative transfers by the higher-level government**.

Passing of central government transfers to local government though regional government:

Sometimes, central government transfers to local governments are “passed through” regional governments; that is, the regional governments are responsible for disbursing central government funds to local authorities. In cases where this disbursement is compulsory (i.e., regional governments may not retain the funds for their own use), the payments in question should be classified as central government transfers to local rather than to regional governments.

F.5. Current reporting practice:

23 participating countries report the existence of intergovernmental transfers earmarked for education in their education systems while 6 countries (Belgium, Spain, Cyprus, Portugal, Romania, Serbia and Montenegro) inform not to have any kind of intergovernmental transfers earmarked for education.

18 countries (the Member States Denmark, Germany, Estonia, Greece, France, Ireland, Italy, Latvia, Luxembourg, Hungary, the Netherlands, Austria, the Slovak Republic Finland and the United Kingdom, the EFTA/EEA countries Norway and Switzerland and the Candidate Country Bulgaria) report intergovernmental transfers earmarked for education in the rows of table finance 1 intended for that purpose.

Sweden and Turkey can report intergovernmental transfers earmarked for education that flow from central to regional level of government, but can not report flows from central to local level of government. The latter are included under the level of government issuing the transfer in Turkey (ISCED levels 0, 1 and 3), while they are included the level of government receiving the transfer in Sweden (ISCED 0 to 4) and Turkey (ISCED 5A6).

3 countries reported that they could not distinguish the intergovernmental transfers. The intergovernmental transfers are included under the level of government issuing the transfer in Lithuania (ISCED levels 0 to 4), while they are included the level of government receiving the transfer in the Czech Republic (all ISCED levels) and Poland (ISCED 0 to 5B). In Lithuania, intergovernmental transfers are missing at ISCED levels 56.

F.6. Impact on indicators in education finance:

Intergovernmental transfers are netted out if all levels of government are reported combined as the expenditure for all levels of government is then consolidated. Consequently, they have no impact on indicators relying on public expenditure on education provided that there is no double counting of intergovernmental transfers.

The manner, intergovernmental transfers are reported, influences directly indicators measuring initial and final funds by level of government.

F.7. Evaluation and next steps:

The definitions of the UOE data collection manual are comprehensive and clear.

Generally, countries report intergovernmental transfers earmarked for education appropriately.

No double counting of intergovernmental transfers is occurring.

At ISCED level 56, Lithuania can not report intergovernmental transfers earmarked for education. However, the amount can probably be considered as negligible as the local level of government is only involved in the funding of some other current expenditure of public educational institutions at ISCED level 5B.

5 countries (the Czech Republic, Lithuania, Poland, Sweden and Turkey) can not always separate intergovernmental transfers earmarked for education from data reported as direct expenditure.

The separation of intergovernmental transfers earmarked for education – though not an essential task to improve the quality of the UOE data collection – should be undertaken in the mid- to long-term for instance by implementing into the government expenditure recording a variable collecting intergovernmental transfers by function of government.

G. MODULE III: TYPE OF EXPENDITURE: PENSION SCHEMES FOR PERSONNEL IN EDUCATIONAL INSTITUTIONS:

G.1. What was requested?

First of all, a question is addressed to verify whether expenditure on retirement - one of the key issues of the Second Finance Comparability Study - is covered by the data that country report in the finance questionnaires. This information will be very useful also as background information since, for instance, the organisation of the pension system (i.e. whether it is fully funded or a pay as you go system) has an immediate impact on indicators like the expenditure on education per pupil/student as well as on the breakdown of expenditure by type.

Moreover, EUROSTAT needs to know whether the instructions are clear enough. This is the purpose of questions such as whether pensions to former teaching and non-teaching staff is reported in the UOE data collection.

G.2. Identifications from previous comparability studies:

G.2.1. Comparability problem for retirement expenditure:

Retirement expenditure is one of the largest categories of education spending after salary itself. Countries finance pensions through funded (contributory) retirement systems, unfunded (“pay as you go”) systems, and various combinations thereof. Both incomplete reporting and inconsistent measurement of pension outlays undermined the quality of international comparisons of education spending. Some countries having an unfunded pension system were not reporting any retirement expenditure, while countries submitting retirement expenditure were using two different measurement methods. Method one consisted in measuring the contributions flowing into retirement funds for personnel currently employed in the education system. Method two was measuring expenditures in terms of the pension payments made each year to former employees who had already retired. The methods were termed the *contribution method* and the *pension payment method*, respectively by the authors of the study.

G.2.2. Recommendations from the First Comparability Study regarding retirement expenditure:

First, it was considered essential that countries that were not reporting retirement expenditure should fill the data gaps.

Second, it was suggested to specify in the future one single methodology.

G.2.3. Recommendations from the Second Comparability Study regarding retirement expenditure:

An outcome of the Second Comparability Study was to adopt as a guideline the methodology used in the System of National Accounts 1993 (SNA93) as well as the European System of Accounts (ESA95) to report imputed social contributions.

G.3. What has been evaluated for this report?

In question III.1.1) a description of the organisation of the pension system for teaching and non-teaching staff was requested. Questions III.1.2) and III.1.3) collect metadata informing on the methods used to estimate retirement expenditure in the case of a partly funded or unfunded retirement system. The purpose of question III.1.5) is to check how widespread the application of ESA95 or SNA93 is with regards to imputed social contributions.

G.4. Definition in the UOE data collection manual:

The instructions regarding retirement expenditure are in section 6.1.1.3.9 of the UOE data collection manual 2004.

Employee costs reported for educational institutions should *include* the cost to the employer of contributions for retirement schemes for the currently active educational employees.

Retirement expenditure is defined, in principle, as the actual or imputed expenditure *by employers or third parties* (e.g. social security agencies, pension agencies or finance ministries) to finance retirement benefits for *current* educational personnel. Pension contributions made *by the employees* themselves, whether deducted automatically from their gross salaries or otherwise, are *not included* in retirement expenditure of educational institutions.

Note that the amount currently being paid in pensions to former employees who have already retired is not the desired measure of retirement expenditure.

Depending on the types of retirement schemes in operation in a country, estimates will need to be provided. Three different types of pension systems exist:

- In a **fully funded**, contributory pension system, employers pay contributions for each of their current employees into a fund which is sufficient to pay the required pension when the employees retire. In this case, the expenditure on retirement to be reported equates to the current employer contribution to the pension fund.

- In a **completely unfunded retirement system**, there are no ongoing contributions into a fund by the employer and instead the government meets the cost of retirement as it arises. This is the type of scheme (sometimes called “pay as you go”) used to provide pensions for civil servants in many countries. In this case, the expenditure on retirement must be estimated or imputed.

- Likewise, in **partially funded systems** where employers contribute to a retirement system but the contributions are inadequate to cover the full costs of future pensions, it is necessary to impute the contributions which make-up the short fall. Thus, retirement expenditure is the sum of actual employers (or third party) contributions and the imputed contribution necessary to cover the projected funding gap.

The System of National Accounts 1993 (SNA93) as well as the European System of Accounts (ESA95) for EU countries⁷ give some guidance on the reporting of imputed social contributions such as for retirement benefits and its guidance must be followed.

A reasonable estimate of the imputed costs may, for example, be obtained by estimating a contribution rate and applying that to the gross salaries of educational personnel whose retirement costs need to be estimated (i.e. the idea is to estimate the future retirement benefits of the personnel). This estimated contribution rate could, for instance, be based on the contribution rates that apply in other similar occupational groups. For example in Germany the imputed contributions for teachers who are civil servants and who are covered by an unfunded system are derived by applying a contribution rate based on that which applies to other teachers/educational personnel who are not civil servants. The estimated contribution rate is multiplied by the total value of gross salaries paid to civil servants by educational institutions to give an estimate of the employer pension contributions.

⁷ Council Regulation (EC) No 2223/96 of 25 June 1996 on the European system of national and regional accounts in the Community, Official Journal L 310 , 30/11/1996 p. 0001 - 0469

G.5. Current reporting practice:

In total 26 countries describe their pension system for teaching staff.

10 countries (Serbia and Montenegro, the Slovak Republic, Sweden, Romania, the Netherlands, Lithuania, Latvia, Finland, Switzerland and Italy) have fully funded contributory pension system for teaching staff. In these countries all retirement expenditure are included in the compensation of personnel.

7 countries (Turkey, the United Kingdom, Hungary, Norway, Bulgaria, Denmark and Germany) inform that their retirement system for teaching staff is partly funded. The retirement expenditure of these countries is partially included in the compensation of personnel. The rest of the pension contributions need to be imputed.

5 countries (Portugal, Luxembourg, Cyprus, the Czech Republic and France) categorise their pension system for teaching staff as completely unfunded. All retirement expenditure needs to be imputed.

4 countries; Estonia (fully funded and partly funded retirement system), Ireland⁸ and Spain (fully funded and completely unfunded pension system) and Belgium (temporary staff: partly funded retirement system, tenured staff: completely unfunded pension system) have a combination of two pension systems for teaching staff. Retirement expenditure needs to be partially imputed.

In total 26 countries describe their pension system for non-teaching staff.

11 countries (Serbia and Montenegro, the Slovak Republic, Sweden, Romania, the Netherlands, Lithuania, Latvia, Finland, Switzerland, Denmark and Italy) have fully funded contributory pension system for non-teaching staff.

7 countries (Turkey, Norway, Hungary, Luxembourg, Bulgaria, Estonia and Germany) inform that their retirement system for non-teaching staff is partly funded.

4 countries (Portugal, Cyprus, the Czech Republic and France) categorise their pension systems for non-teaching staff as completely unfunded (pay as you go).

4 countries; the United Kingdom (fully funded and partly unfunded pension system), Ireland and Spain (fully funded and completely unfunded pension system) and Belgium (temporary staff: partly funded retirement system, tenured staff: completely unfunded pension system) combine two pension systems.

In fully funded contributory pension systems the contribution to pension funds is comprised in the compensation of personnel. Therefore, retirement expenditure need only to be estimated in partly or unfunded pension systems.

In total, 3 countries (France, Ireland and Luxembourg) report pensions to staff that is already retired, which is in contradiction to the sentence “the amount currently being paid in pensions to former employees who have already retired is not the desired measure of retirement expenditure“, but **which is under certain circumstances being accepted in practice by National Accounts** (see the annex).

⁸ For teaching staff in most universities pension systems is fully funded. In two universities and in the Institutes of Technology the pension system for teaching staff is pay as you go.

9 countries (the Czech Republic, Denmark, Germany, Spain, Cyprus, Latvia, Hungary, Norway and Turkey) report imputed expenditure on retirement for staff that is currently working.

Belgium uses the *wage-share method* for the temporary staff employed in educational institutions while for the tenured staff, which is the bulk of all staff working in educational institutions) the *benefits-paid method* is applied. Belgian national accountants use as well the *benefits-paid method* to report the imputed social contributions.

The United Kingdom reports at the same time pensions to teaching and non-teaching staff that is already retired or currently working as it applies a combination of the *benefits paid method* and of the *wage-share method*.

14 countries⁹ declare to report imputed social contributions according to ESA95 (Belgium, Denmark, Germany, Spain, Cyprus, Latvia, Hungary, Poland, Sweden, the United Kingdom, Norway, Bulgaria, Romania and Turkey).

10 countries¹⁰ do not report imputed social contributions according to ESA95 (the Czech Republic, Estonia, Greece, France, Ireland, Lithuania, Luxembourg, Portugal, the Slovak Republic). However, it is noteworthy that France and Luxembourg apply a methodology that is similar to that used by national accountants of these countries and consequently perhaps already apply ESA95 while New Member States (the Czech Republic, Estonia, Lithuania and the Slovak Republic) are in a transition period and are in a process of implementing gradually the definitions of ESA95 in their system of National Accounts. Moreover, the pension systems for educational staff are fully funded in Lithuania and the Slovak Republic. The Czech Republic and Estonia both report retirement expenditure in table finance 2 of UOE data collection 2003.

2 countries (Greece and Portugal) with largely understated retirement expenditure, have been identified. Retirement expenditure is missing for Greece (according to the UOE data collection 2003). According to the greek questionnaire on country profiles, 7% of the gross salary is retained as pension contribution. However, it is likely that large amounts are not yet included in the UOE data collection. On the one hand Portugal seem to include the retirement expenditure seem under the compensation of personnel, on the other hand Portugal has a completely unfunded retirement system and according to the questionnaire on country profiles neither imputed retirement expenditure of staff currently working nor already retired is reported in the finance tables.

G.6. Impact on indicators in education finance:

Retirement expenditure being one of the largest categories of education spending, both incomplete reporting and inconsistent measurement of pension outlays do seriously undermine the quality of international comparisons of education spending.

All key indicators like expenditure per student or indicators using direct expenditure on educational institutions are concerned by this comparability problem.

⁹ When considering also the non-European OECD countries it amounts to 16 countries as Australia and Japan are reporting imputed social contributions according to SNA93.

¹⁰ When considering also the non-European OECD countries it amounts to 11 countries as Mexico and the United States of America are not reporting imputed social contributions according to SNA93. Note that in the First Comparability Study, the pension system for educational staff is described as almost fully funded.

G.7. Evaluation and next steps:

Data providers of countries having partly funded or unfunded pension systems **should apply the methodology used by national accountants of their country to report imputed social contributions** to the international organisations administering the UOE data collection. For the time being, according to experts on National Accounts in EUROSTAT two different methodologies delivering identical results are accepted at international level (**see the annex**).

Moreover, instructions in ESA95 for Member States or SNA93 for other countries could be used as guidance.

EUROSTAT proposes to revise section 6.1.1.3.9 and annex 1 of the UOE data collection manual with examples of methods currently used by national accountants in Member States.

EUROSTAT will maintain a regular exchange of information between National Accounts and experts on education finance to capture any changes in the reporting practice on imputed social contributions.

Countries (Greece and Portugal) having partly funded or unfunded pension systems and not yet reporting retirement expenditure should implement them **in their submission of finance data as soon as possible**.

Countries reporting retirement expenditure and being not in line with the reporting practice of their national accountants should adopt the methodology used by their national accountants in the submission of finance data as soon as possible.

Countries reporting retirement expenditure and being in line with the reporting practice of their national accountants should contact their national accountants before each data collection round to permanently ensure the consistency with National Accounts.

H. MODULE III: TYPE OF EXPENDITURE: CAPITAL EXPENDITURE

H.1. What was requested?

Questions concerning capital expenditure aim, on the one hand, to collect information on whether educational institutions own or rent the building they use (has an immediate impact on the breakdown of expenditure by type) and on the other hand, to check whether the definition of capital expenditure is correctly applied as some countries may use data from National Accounts.

H.2. Identifications from previous comparability studies:

H.2.1. Identified comparability problems:

Expenditures for debt service are presented in different ways in the internal education finance statistics of different countries and could, in principle, be presented in different ways in international statistics as well:

- One approach would be to include the interest portion of debt service outlay in current expenditure, the rationale being that such payments are part of the recurring expense of providing educational facilities.
- An alternative would be to include interest in capital expenditures, on the grounds that the obligation to pay interest is part of the cost of acquiring capital assets.
- A third option is not to include interest payments in either capital or current expenditure but instead to report them, along with repayments of principal, in a separate debt service category.

A point not in dispute is that it would be improper to count repayments of loan principal as either capital or current outlay. To do so would involve double counting of capital costs--once when a capital asset is acquired, the second time as the funds borrowed to purchase the asset are repaid. In the UOE data collection of the late nineties, countries had been asked to report the interest and principal components of debt service expenditures as two categories under a separate debt service heading, distinct from both current and capital expenditures.

A more significant problem--which may not be correctable any time soon--is that many countries have not provided, and are unable to provide, any data on their expenditures for servicing education debt. The main reason for this inability is that education debt is often consolidated with, and inseparable from, debt for other government functions. Education debt loses its separate identity when, for example, the national ministry of finance is responsible for borrowing on behalf of the central government as a whole, and the amount to be borrowed reflects the combined debt financing requirements of all ministries undertaking capital construction. Similar intermixing of education and other debt may also occur at the regional or local levels in cases where general-purpose subnational authorities are responsible for financing not only schools but also other public buildings. The result is that some countries cannot identify either the portion of accumulated public debt or the portion of debt service expenditure attributable specifically to education.

H.2.2. Recommendations from the First Comparability Study:

In 1994, the situation with respect to the classification of education expenditures by nature had been summarised as follows: Most countries had adhered, with only minor variations, to the standard methods of defining and measuring capital and current expenditures, but there were a few significant deviations.

The capital leasing methods used in Austria and Sweden transform some capital outlays into current expenditures. As a result, the capital shares of these countries' expenditures are understated relative to those of other countries.

Many countries had omitted all debt service outlays from their data submissions to the international agencies, most often because they had been unable to separate payments attributable to education from payments for government debt in general. The omissions make it infeasible to compare the total economic cost of education, which includes loan interest, among the countries; however, the effects of omitting interest are probably minor because such payments constitute only a small percentage of total cost.

- During the 1993-94 restructuring of UOE data collection, the instructions concerning current expenditures, capital expenditures, and debt service were clarified in a way that should eliminate any residual uncertainty as to how these categories should be distinguished from one another.

The point that debt service expenditures should be reported separately had been reinforced by the inclusion in the new UOE finance data collection instrument of a supplemental data collection table specifically for that purpose, separate from the tables for reporting current and capital spending.

H.2.3. Recommendations from the Second Comparability Study:

The Second Comparability Study also tackled the topic on the in- or exclusion of debt servicing. A compromise was found as debt servicing is still not to be included in the tables finance 1 and 2 of the UOE data collection, but a special table "financesup2" has been designed for the collection of debt servicing.

H.3. What has been evaluated for this report?

Questions III.2.1), III.2.3) and III.2.4) of the section on capital expenditure of module III have been evaluated.

Question III.2.1) checks whether a country is able to distinguish between current and capital expenditure in the UOE data collection.

Question III.2.3) focuses on capital expenditure. There, it is examined which type of expenditure is reported as capital expenditure. Some types of expenditure outlined correspond to the definition of capital expenditure as in the UOE data collection manual. Others have been added to check whether all countries could exclude such things as depreciation or interest rates from capital expenditure reported in the UOE data collection.

Through question III.2.4) it can be analysed whether public authorities own or rent the educational institutions they are providing to different types of educational institutions.

H.4. Definition in the UOE instructions manual:

Section 6.3.2:

- **Capital expenditure (row X15)** is expenditure on assets that last longer than one year. It includes spending on construction, renovation and major repair of buildings and expenditure on new or replacement equipment. (It is understood that most countries report small outlays for equipment, below a certain cost threshold, as current rather than capital spending.)

Section 3.9.2 (accounting principles):

In keeping with the system used by many countries to record government expenditures and revenues, the OECD educational expenditure data are compiled on a cash accounting rather than an accrual accounting basis. That is to say that expenditure (both capital and recurrent) is recorded in the year in which the payments occurred. This means in particular that:

- Capital acquisitions are counted fully in the year in which the expenditure occurs;
- Depreciation of capital assets is not recorded as expenditure, though repairs and maintenance expenditure is recorded in the year it occurs;

Section 6.1.1.2 (to exclude from the UOE data collection):

- Debt servicing (i.e. payments of interest or repayments of the principal);
- Depreciation of capital assets and capital charges;

H.5. Current reporting practice:

31 countries report to distinguish between current and capital expenditure in the UOE data collection. Only Sweden is currently not being able to breakdown the expenditure into current and capital expenditure, but indicated to do so from the UOE data collection 2004.

What countries consider and report as capital expenditure is varying:

- While most respondents report to include under capital expenditure construction and major repair of buildings as well as new equipment and the replacement of equipment, there are some noticeable exceptions to that pattern,
- Austria is not including new equipment in capital expenditure,
- Belgium (Flemish Community) includes new equipment and replacement of new equipment in current expenditure,
- Norway and Serbia and Montenegro are not reporting replacement of equipment as capital expenditure,
- Belgium (only Flemish Community; only at tertiary level of education) and Japan report rent for a building as capital expenditure,
- Belgium (only French Community), Italy (only at tertiary level of education) and Latvia report also rent for a building, depreciation and interest rates as capital expenditure and therefore overstates capital expenditure,
- Sweden would report from the UOE data collection 2004 rent for a building, depreciation and interest rates as capital expenditure.

In most countries public authorities own the school or university buildings they let to the public educational institutions.

In 5 countries (the Czech Republic, Denmark, Ireland, Finland and Turkey) public authorities partly own the buildings they provide to public educational institutions.

In 6 countries (Belgium, Hungary, Poland, the Slovak Republic, Switzerland and Serbia and Montenegro) public authorities own the buildings they let to government dependent private institutions. Moreover in 3 other countries (the Czech Republic, Denmark and Finland) they partly own the buildings they provide to government dependent private institutions.

Independent private institutions receive their buildings from public authorities in Austria and to some extent in Bulgaria

In 3 countries (Italy (only at ISCED levels 1 to 4), Switzerland and the United States of America) public authorities rent the buildings they provide to public educational institutions. In 5 more countries (the Czech Republic, Luxembourg, Finland, Turkey and Mexico (only at ISCED levels 1 to 3)) public authorities partly rent the buildings they provided to public educational institutions.

In 2 countries (Austria and Switzerland) public authorities rent the buildings they provide to government dependent private educational institutions and in 2 more countries (the Czech Republic (only at ISCED levels 1 to 5B) and Finland) public authorities partly rent the buildings they provided to government dependent private educational institutions.

In 2 countries (Austria and the United States of America) public authorities rent the buildings they provide private independent educational institutions and the Czech Republic (only at ISCED level 5A6) public authorities partly rent the buildings they provided to independent private educational institutions.

H.6. Impact on indicators in education finance:

The inclusion of depreciation or interest rates may overstate the total expenditure and therefore affect the comparability of indicators such as expenditure per pupil/student or direct expenditure on educational institutions.

The classification of leasing expenses for school buildings has an immediate impact on the breakdown of expenditure data by type of expenditure.

H.7. Evaluation and next steps:

In the UOE data collection manual it is explicitly underlined that neither depreciation nor interest rates shall be included in capital expenditure. However, 5 respondents (Belgium (only French Community), Denmark, Italy, Latvia and Sweden) are at least partially including depreciation and interest rates in the capital expenditure reported in the UOE data collection. Hence, their capital expenditure is overstated. Therefore, these countries **shall try to separate and exclude the depreciation and interest rates from the data they report in tables finance 1 and 2 of the UOE data collection.**

As concerns debt servicing, it could be argued that it should be considered as a separated type of expenditure (both interest rates and repayments to the principal) in the tables finance 1 and 2. This has been discussed in the two Finance Comparability Studies from OECD. For the time being debt servicing is collected through a special table (finance sup2). In the UOE data collection exercise 2003, 8 countries (Italy, Cyprus, Lithuania, the Netherlands, Poland, Canada, Japan and the United States of America) had provided data. Adding to them Belgium, Denmark, Latvia and Sweden as being potentially able to provide such data, still less than one fourth of the countries participating to the UOE data collection are able to provide such data. Hence, it is proposed **to further exclude debt servicing from tables finance 1 and 2** (i.e. to limit its collection to table finance sup 2).

Already the First Comparability Study suggested to investigate how the value of the capital stock could be estimated. It was argued that, even excellent data on current and capital expenditures would not support comprehensive cost comparisons that embrace both current outlays and the value of the services derived from the accumulated stock of educational capital. Only by obtaining data on the value of the capital stock would it be possible to take into account, for example, that some countries have newer educational facilities than others, that the capital intensity of education varies, and that educational capital is relatively more expensive (e.g., because of higher land prices) in some countries than in others. These extended comparisons would require not only measurement of the stock of educational capital but also estimation of annual capital consumption (depreciation), both of which are tasks beyond the current capacities of nearly all countries.

A proposal could be to explore in the long-term whether it would be feasible to measure precisely the value of the capital stock. However, it is understood that before undertaking such a quick survey an accurate elaboration of concepts seems necessary.

The survey on country profiles has identified that at least in 9 countries the public authorities seem to some extent rent school and university buildings to provide them to educational institutions. Therefore, rent for buildings (also referred as leased capital in the First Comparability Study) is reported in the UOE data collection. It seems that some countries (Belgium, Denmark, Italy, Serbia and Montenegro and Japan) are reporting rent for buildings as capital expenditure. It is unknown whether other countries are reporting rent for buildings as current expenditure.

This problem of "disappearing" leased capital had already been recognised by the First Comparability Study, a solution had been proposed, but no measure was undertaken to implement that solution in the UOE data collection.

EUROSTAT proposes to further precise the definition of capital expenditure by adding the following:

Report all outlays for construction of educational facilities as capital expenditures for education regardless of

- whether the facilities are built by the education authorities themselves, by other government agencies, or by private organizations and
- whether the facilities are used directly by the agency that builds them or by a different agency to which they are sold, leased, or transferred.

If this approach was adopted, the statistics on current and capital spending would be transparent to institutional arrangements--e.g., the existence of a specialised public building agency.

I. MODULE IV: HOUSEHOLD EXPENDITURE:

I.1. What was requested:

Although expenditure of private households on educational goods and services constitutes a substantial part of private expenditure on education, reporting in the UOE data collection is very heterogeneous across countries. Therefore information on the items which countries include as educational goods and services is crucial to improve comparability. Moreover, some information is required to check whether such information is available in countries, before proposing methods to estimate such data.

Furthermore, it is of particular interest to know whether items that are necessary to attend educational institutions are financed by the educational institution or by the household. The pattern may be sensitive to the level of education and to the type of institution. The expenditure per pupil/student may vary depending on whether the educational institution or the household pay for these items.

I.2. Identifications from previous comparability studies:

I.1.2. Findings from the First Comparability Study:

A form of private spending covered by only a handful of national statistics systems is direct purchases of education-related goods by households. Direct purchases refers to the acquisition by students or their families of personal items used in education, such as school supplies, books (other than those provided by the schools), computers and calculators, school uniforms, art materials, and athletic equipment. Because households usually purchase such items from ordinary retail stores or other private-market suppliers, they do not appear in either governmental or institutional budgets. Normally, they can be captured only by household surveys specifically designed for the purpose. The education outlays of the few countries able to estimate direct purchases from such surveys are likely to be inflated (by perhaps two to four percent) relative to those of other countries.

I.2.2. Findings from the Second Comparability Study:

Expenditure related to education occurs not only within, but also outside educational institutions. Two types of expenditure related to education that occur outside institutions can be identified:

- expenditure on educational goods and services purchased by households and students outside institutions, in the free market, and
- expenditure by students and households on student living costs and any foregone earnings.

The definitions and instructions in the UOE Manuals published before 2001 did not clearly distinguish between these two types of expenditure. Neither did they clearly define these two types of expenditure themselves.

The Second Comparability Study was the starting point for creating a list of educational goods and services purchased outside institutions:

- which are requested directly or indirectly by educational institutions (purchasing imposed by institutions). Examples are school uniforms, books requested for instruction, athletic equipment, material for arts lessons etc. (row H15 of table finance 1),
- which were not directly needed for participation (purchasing NOT imposed by educational institutions), but bought by households with the intention to support learning in UOE type education. Examples can be additional books, computer, learning software to be used at home (row H16 of table finance 1),

- Payments for private tutoring (row H17 of table finance 1)”.

This new distinction had replaced in the UOE data collection 2001 the old, unclear distinction between:

- household payments other than to institutions and subsidised by public transfers (grants or loans), and
- household payments other than to institutions and NOT subsidised by public transfers (grants or loans) in the table finance 1.

I.3. What has been evaluated for this report?

Question IV.1) is of key significance when analysing the reporting practice of countries with regards to household expenditure.

It will perhaps permit to better precise the goods and services internationally recognised by data providers as goods and services which private households typically purchase outside educational institutions.

It will shed more light on the data gaps some countries may possess with regards to household expenditure.

I.4. Definition in the UOE instructions manual:

It INCLUDES:

- Expenditure on educational goods which are requested for participation in the programmes and which are therefore imposed on the student either directly or indirectly by the educational institutions. Examples are school uniforms, books requested for instruction, athletic equipment, materials for arts lessons.
- Expenditure on educational goods which are not required by institutions, but which students and households choose to buy in support of their study in the programmes in scope of the data collection. Examples are additional books or computer, learning software to be used at home.
- Fees for private out of school tuition related to the educational programmes being pursued. This will be the main type of educational service purchased outside institutions. Outside school tuition is restricted to tuition intended to support the participation in programmes that fall under the scope of the data collection Expenditure on tuition that is not related to programmes in scope of the data collection must be excluded.
- Purchases from commercial enterprises operated or sponsored by educational institutions (e.g. university bookstores) are regarded as expenditure outside educational institutions.

Expenditure on educational goods and services purchased outside institutions will usually be measured by household expenditure surveys, so the definition of goods and services will tend to be dictated by those used in the national survey instrument. Care therefore needs to be taken to ensure that this does not result in double counting with expenditure on educational institutions and that student living costs are not included.

I.5. Current reporting practice:

Globally, when leaving school uniforms aside (school uniforms being not compulsory in all education systems), 4 countries (Belgium, the Netherlands, the Slovak Republic and Japan) cover all items listed in question IV.1) of module IV.

On the other hand, when not considering fees paid to educational institutions, 11 countries (Estonia, Cyprus, Lithuania, Poland, Finland, Sweden, Bulgaria, Croatia, Australia and the United States of America¹¹) do not provide any educational goods or services included in the indicative list of module IV. However, Cyprus, Hungary and Poland are planning to use data from their national household budget survey to report them in the UOE data collection in the near future.

Before starting with the educational goods and services that private household generally purchase outside educational institutions, the analysis will focus on the expenses of private households to purchase educational services of the educational institutions or contributions for ancillary services which are two items which may be a significant share of the budget of private households.

11 countries (Belgium (only French Community), the Czech Republic, Spain, France, Italy, Hungary, the Netherlands, Portugal, the Slovak Republic, Australia and Japan) include contributions from private households for ancillary services in the UOE data collection, while 2 countries (Latvia and Luxembourg) do it partially and 16 countries (Belgium (only Flemish Community), Estonia, Greece, Cyprus, Lithuania, Austria, Poland, Finland, the United Kingdom, Switzerland, Bulgaria, Croatia, Romania, Serbia and Montenegro, Mexico and the United States of America) are lacking adequate data.

24 countries (Belgium (only French Community), the Czech Republic, Germany, Greece, Spain, France, Italy, Cyprus, Latvia, Hungary, the Netherlands, Austria, Portugal, the Slovak Republic, the United Kingdom, Norway, Bulgaria, Romania, Turkey, Serbia and Montenegro, Australia, Japan, Mexico and the United States of America) report fees paid to educational institutions, Luxembourg does it partly and 7 countries (Belgium (only Flemish Community), Estonia, Lithuania, Poland, Finland, Switzerland, Croatia) could not report such fees.

A detailed account of the reporting practice from countries will only be given for educational goods, which are on the one hand imposed by the education system (e.g. books or stationery) in many countries, which could on the other hand amount to a substantial share of the budget that private households spent on education, and hence could be identified as a noticeable data gap.

5 countries (Belgium (only French Community), Germany, the Netherlands, the Slovak Republic and Japan) report expenditure for all educational goods and services (books, stationery, athletic equipment, computer, learning software and extra tuition, without school uniforms¹²) which are typically purchased outside educational institutions.

10 countries (Belgium, Germany, France, Latvia, the Netherlands, Austria, the Slovak Republic, Serbia and Montenegro, Japan and Mexico) report books and stationery, two items, which are in general imposed by educational institutions to participate to educational programmes, and which are (to some extent) purchased by private households. Moreover, the United Kingdom derives some expenditure on books and stationery made by students enrolled in government dependent private educational institutions at tertiary level of education.

¹¹ Note that, other items considered as household expenditure (e.g. lunch money and athletic equipment rentals/purchases) may be include in the fees paid for items purchased and used solely for school purposes.

¹² Belgium, Mexico and Japan report to include expenses for school uniforms in the UOE data collection. School uniforms are not compulsory in the education systems of the majority of participating countries. Moreover, some countries may have included expenses for clothes (at least to a certain extent) in the UOE data collection because they may argue that to wear clothes at school is imposed by the education system. Only 4 countries (the Czech Republic, Latvia, Luxembourg and Norway) mention that school uniforms are not applicable.

15 countries (Belgium, Germany, Greece, France, Italy, Latvia, the Netherlands, Austria, Portugal, the Slovak Republic, the United Kingdom, Romania, Serbia and Montenegro, Japan and Mexico) include books purchased by private households in the UOE data collection, Luxembourg include expenses for books partially and 13 countries (the Czech Republic, Estonia, Spain, Cyprus, Lithuania, Hungary, Poland, Finland, Switzerland, Bulgaria, Croatia, Australia and the United States of America) are lacking data.

Computer and learning software are two educational goods that are not imposed by educational programmes. 6 countries (Belgium (only French Community), Germany, the Netherlands, Austria, the Slovak Republic and Japan) include them in the UOE data collection. 2 more countries (Belgium (only Flemish Community) and Serbia and Montenegro) were able to report computer as expenditure of private households in the UOE data collection. The United Kingdom reports some computer expenditure of students enrolled in government dependent private institutions at tertiary level of education

Data on spending for extra tuition is reported by 8 countries (Belgium (only French Community), Germany, Spain, Italy, Latvia, the Netherlands, the Slovak Republic and Japan) in the UOE data collection.

11 countries (Belgium, Spain, Latvia, Luxembourg, Hungary¹³, the Netherlands, Portugal, Slovak Republic, Romania, Turkey and Japan) include payments for lunch money, 9 countries (Belgium, Spain, Latvia, the Netherlands, Portugal, the United Kingdom, Romania, Japan and Mexico) include payments for travel money in the UOE data collection.

It is noteworthy that a few countries (Belgium (only Flemish Community), Spain, France, the United Kingdom, Turkey and Japan) even include up to three supplementary items in the UOE data collection. While the Flemish Community of Belgium is including three additional items with cost for work replacement, school activities for one day or school excursion for several days and single costs (e.g. for class photos, school events), Spain includes expenses for dormitories, France includes working clothes that are necessary to participate at certain vocational or technical programmes, the United Kingdom includes childcare, Turkey includes dormitories and health services and Japan includes to additional items not further specified in the questionnaire.

To better identify which are the data sources countries are using to report educational goods and services purchased by private households outside educational institutions, the items contribution for ancillary services and fees paid to educational institutions, which are in certain countries also derived from household budget surveys, are not taken into consideration when classifying the countries by their statistical sources.

6 countries (Belgium (only French Community), Germany, Latvia, Austria, Poland and Serbia and Montenegro) do partially derive household expenditure reported in the UOE data collection on the basis of their national household budget surveys.

14 countries (Belgium (only Flemish Community), Greece, Spain, France, Ireland, Italy, Luxembourg, Hungary, the Netherlands, the Slovak Republic, Bulgaria, Turkey, Japan and Mexico) rely on other data sources than the national Household Budget Survey to produce figures on household expenditure. Among those sources are household surveys (in the Flemish Community of Belgium, France, the Netherlands or the Slovak Republic) carried out by Ministries of Education, National Statistical Institutes or Research Institutes, revenues from State Budget (Luxembourg, the Slovak Republic and Bulgaria) or school surveys (Luxembourg (only private schools)).

¹³ In Hungary, household expenditure is only reported in the UOE data collection when it appears in the budget of educational institutions as revenue. Lunch is organised in schools therefore lunch money of households can be reported in the UOE data collection.

3 countries (Germany Italy and Latvia) base the estimation of their household expenditure on a combination of their national household budget survey and other data sources (e.g. Italy is using school budget surveys (public schools) and universities budget survey (public and private institutions)).

I.6. Impact on indicators in education finance:

The omission or incomplete coverage of payments of private households on educational goods and services purchased outside educational institutions lead to an underestimation of total private expenditure (e.g. it could be defined as direct private expenditure plus private financial aid to students plus payments of private households on educational goods and services purchased outside educational institutions). Hence, the total private expenditure – an indicator in which policy makers would be particularly interested – would be severely understated.

Consequently data gaps in educational expenditure on private households are one important reason why private expenditure on education have not yet been included in the indicator spending on human resources (which is for the time being limited to public expenditure on education).

The interpretation of indicators which include data on payments of private households on educational goods and services purchased outside educational institutions should be done with the utmost care.

I.7. Evaluation and next steps:

The reporting practice shows that countries seem to consider different sets of items as educational goods and services. It becomes evident from the reporting practice that a **comprehensive list of educational goods and services which is commonly agreed at international level** is necessary in the short-term to improve the quality of household expenditure. In particular, it is essential before attempting to harmonise data collections at national level or at international level (e.g. by including one ad-hoc module to one of the next rounds of the household budget survey).

A matrix could be a useful instrument for grouping the educational goods and services by destination (i.e. inside or outside educational institutions) and by purpose (i.e. fees, ancillary services or educational goods and services imposed by the educational system etc.). Each of the destination and purpose would be clearly linked to one variable of table finance 1.

Such an indicative list of educational goods and services has been derived from module IV of the survey on country profiles and from the UOE data collection manual. It is given as kind of example and could be used as a starting point in a consultation of national data providers:

Table 6: household expenditure by destination and purpose

Type of educational good and service	All household expenditure (row H20)				
	Educational services and goods purchased inside educational institutions (row H5)		Educational services and goods purchased outside educational institutions (row H18)		
	Fees paid to educational institutions (rows H1 to H5)	Contribution for ancillary services (row H5b)	Educational services and goods imposed by institutions (row H15)	Educational services and goods not imposed by institutions (row H16)	Payments for private tutoring (row H17)
Contribution for ancillary services	x	x			
Books			x		
Stationery			x		
School uniforms			x		
Athletic equipment			x		
Computer				x	
Learning software				x	
Extra tuition					x
Fees paid to educational institutions	x				
Lunch money		x			
travel money		x			
Other items...					

Moreover it is obvious that countries are currently relying on different data sources on the one hand and on the other hand probably also on different methodologies to estimate data on private household expenditure. Although different data sources may not be too problematic as long as they lead to similar results, the selection of data sources should be conducted in a way to gather internationally comparable results.

In the mid- to long-term it is important that countries agree on ideally one common methodology to precisely estimate household expenditure in order to ensure full comparability in that area. However, given the complexity of the issue and the diversity of education systems, a set of equivalent methodologies leading to similar results could be considered. This discussion could be launched at the earliest in autumn 2005, after the outcome of a study on private household spending in education and training commissioned by the European Commission, had been analysed. Methodological proposals on new data to be collected (type of data, survey vehicle, definition, frequency etc) and on survey design could be derived from that study.

J. MODULE V: ANCILLARY SERVICES:

J.1. What was requested:

Educational institutions may offer instruction and ancillary services. For the time being, no information exists across countries on the percentage of educational institutions that offer ancillary services. As this may vary depending on the level of education and type of institution answers are required for such a breakdown. An additional question asks if the ancillary services are reported in the UOE data collection. Furthermore, information is required on the type of ancillary services offered (e.g. meals, museums etc.) and on who is paying for it (e.g. full payments by household, free etc.).

It is also crucial to completely cover ancillary services and to distinguish them properly from instruction and R&D expenditure in order to have unbiased expenditure per pupil/student broken down by type of services offered by educational institutions.

J.2. Identifications from previous comparability studies:

J.2.1. Findings from the First Comparability Study:

J.2.2.1. Ancillary Services:

The general nature and the sources of comparability problems associated with expenditures for ancillary services can be summarized as follows:

- First, countries differ in whether, or to what degree, they make each type of ancillary service available to students. Thus, the question arises, for example, of how to compare total education spending between a country that expends funds to provide school lunches and a country that leaves it to families to provide lunches themselves.
- Second, ancillary services are provided by a variety of public and private organizations. A given service may be provided by the education authorities in some countries, by public non-education agencies in others, and by private contractors or non-profit organizations in still others. These institutional differences can translate into comparability problems in cases where the statistical coverage of some types of providers is incomplete.
- Third, different countries finance ancillary services with different combinations of direct public expenditures, public subsidies, and fees paid by students or their families. The mode of financing affects comparisons when, as is often the case, private components of spending are inadequately reported.
- Fourth, the treatment of spending for ancillary services varies among national statistical systems. Some countries cover the total costs of these services, regardless of how the services are financed; others cover only the net costs to the public sector (i.e., excluding the portion covered by fees); and still others omit expenditures for certain services entirely.
- Fifth, the degree to which, and the manner in which, expenditures for ancillary services are reflected in international data submissions also varies by country, and not always in the same way as in the countries' internal statistics. For example, a country with complete information on, say, expenditures for university dormitories and dining halls may choose, for reasons of its own, to present only expenditures net of fees in its international statistics.

The expenditure comparability problems related to spending for ancillary services identified by the First Comparability Study were of two types:

- First, various inconsistencies in statistical coverage and measurement methods caused expenditures for ancillary services to be reported more comprehensively by some countries than by others.

- Second, the fact that some countries provided a wider range of ancillary services than others raised a broader question about the validity of international comparisons in which expenditures for ancillary services are included.

The main statistical inconsistencies brought out in the foregoing discussion were summarised as follows in the First Comparability Study:

- The education expenditure statistics of some countries include outlays for ancillary services (specifically, health, psychological, and other social services) that were considered non-educational, and hence excluded from education statistics, by other countries.
- Some expenditure for ancillary services (student transportation and health and psychological services) went unreported or underreported in cases where the services are provided by general-purpose governments rather than education authorities.
- Some countries reported gross expenditures for certain services (transportation, food services, tertiary room and board), whereas others reported only net expenditures--that is, gross expenditures less the fees paid by students or their families.

But even if all the aforementioned statistical inconsistencies were eliminated, the inclusion of outlays for ancillary services in aggregate education spending would distort international expenditure comparisons. The reason is that expenditures for ancillary services, even when reported comprehensively, generally do not represent the total resources that a country devotes to the ancillary activities in question. Instead, they reflect the degree to which the country has organized ancillary services and made them "official" (be they transportation of students or provision of school lunches), as opposed to leaving them to individual students and their families. In other words, international differences in expenditures for ancillary services reflect not only differences in the amounts of services provided but also differences in the institutional arrangements for providing them.

J.2.2.1. Child care:

Some of the Nordic countries not only expanded their coverage to embrace children ages three to five but also reported the full costs of the institutions that serve these children, which include the very substantial costs of extended day and evening child care services. As a result, the Nordic countries appear, misleadingly, to be spending about twice as much as other countries on each pre-primary pupil.

The finance data collection instrument adheres to the concept that countries should report expenditures for all organized or centre based services for children three (in some cases, two) or older, without regard to who provides the services or how the services are labelled, but should exclude any expenditure related extended day and evening services.

J.2.3. Findings from the Second Comparability Study:

The Second Comparability Study examined the effect of inclusion/exclusion of expenditure on various types of ancillary services on total education expenditure on educational institutions (including student housing, meals, health care, and other student welfare).

Until the Second Finance Comparability study, student/household payments to public educational institutions were used as a proxy for tuition and fees, when according to the instructions in place before the UOE data collection 2000 these covered all household expenditures on educational institutions, including student living costs, meals, health services, and other welfare services if these services were provided by the educational institutions.

Expenditures for ancillary services posed a special problem for international comparability because countries differ with respect to which ancillary services their institutions provide and whether, or to what degree, expenditures for ancillary services were included in statistics on education spending. In the past, some countries had included gross expenditures for ancillary services; some had included only net expenditures for ancillary services (i.e., net of fees paid by students); and others had excluded expenditures for ancillary services entirely. The data reported in the former table finance sup1 on expenditures for ancillary services were examined in order to determine what each country included and to assess the impact on the comparability of expenditure data. For countries that had not filled in finance sup1, information was collected directly from the finance data provider in the country.

The Second Comparability Study also assessed the feasibility of netting out ancillary service outlays from expenditure data for the purpose of reporting expenditure per student and expenditure as a percentage of GDP. In addition to, exploring the use of available data on ancillary services, the study team explored with participating countries the availability of alternative data sources, as well as the applicability of various estimation techniques.

An outcome of the Second Comparability Study was to integrate the former table finance sup 1 into the tables finance 1 and 2.

J.3. What has been evaluated for this report?

The presentation of the results from question V.1) will give an overview on the different types of ancillary services that countries offer at various levels of their education systems.

Question V.4) is an evaluation of the reporting practice from countries regarding ancillary services. It will be useful to assess to what extent countries are able to report ancillary services. Question V.5) will analyse in further details for which type of ancillary services countries have difficulties to report all the data.

In question V.6) it will be examined whether countries exclude expenditure on child care at pre-primary level of education.

J.4. Definition in the UOE instructions manual:

J.4.1 Definition of ancillary services:

“Ancillary services” are defined as services provided by educational institutions that are peripheral to the main educational mission. The two main components of ancillary services are:

- **student welfare services** - at ISCED levels 0-3 - student welfare services include, such things as meals, school health services, and transportation to and from school. At the tertiary level, they include halls of residence (dormitories), dining halls, and health care,
- **services for the general public**, these include such things as museums, radio and television broadcasting, sports, and recreational or cultural programmes.

All such ancillary services in educational institutions are **included** in the coverage of the expenditure data **except for** day or evening child care provided by pre-primary and primary institutions.

J.4.2. How to report ancillary services:

Public expenditure designated for ancillary services is reported in row G5b. Note that although fees for ancillary services are now reported separately, it is still desirable to include them in rows H1 to H5. Similar rows on ancillary services by source of funds are provided for private households (H5b) and for other private entities (E5b).

Note that the concept reflected in this category is that the expenditure in question has been explicitly designated, or “earmarked,” for ancillary services. The amounts actually spent for ancillary services may exceed the amounts designated for ancillary services by public and other private sources plus fees paid by households in cases where funds not specifically earmarked by governments are used to finance ancillary services.

J.4.2 Child care:

In some countries, institutions providing pre-primary and primary education also provide extended day or evening child care.

In the interest of international comparability, a country where institutions provide these extended day or evening services should attempt to exclude the cost of such services from any reported expenditure statistics, especially at ISCED levels 0 and 1.

J.5. Current reporting practice:

Ancillary services can be categorised into student welfare services and services for the general public. 5 different types of ancillary services are classified as student welfare services: special need and health services, meals, dormitories or transportations.

The type of ancillary services that educational institutions of a country provide, have been ranked by level of availability for each level of education. The ranks range from 1 to 5 at the maximum as educational institutions of a country can provide at the maximum 5 different types of ancillary services. The upper limit of the range depends on the number of different student welfare services which are available for a country (i.e. if only three types of ancillary service (e.g. meals, transportations and health service) are available at pre-primary level of education for a given country the upper limit would be 3). The type of ancillary service which is the most often available corresponds to rank 1; that with the least frequent level of availability to rank 3 (under the assumption that – as in the example above - 3 different types of ancillary service are available).

Table 7 below describes the number of countries in which institutions offer student welfare services, by type of ancillary service, by level of availability and by level of education.

In terms of level of availability, meals and health services are ancillary services offered by educational institutions in most countries at pre-primary level of education.

At ISCED levels 1 to 4, meals, health services and transportations are ancillary services that are particularly common in many countries.

At tertiary level of education, meals and dormitories are frequently offered by educational institutions in a lot of different countries.

Table 7: number of countries offering student welfare services, by type of ancillary service, by level of availability (i.e. 1 = most frequent to 5 = least frequent, n.a. = not allocable) and by level of education

ISCED-levels	Type of ancillary services	Total	of which:					n.a.
			1	2	3	4	5	
ISC 0	special need services	18	1	6	5	3	0	3
	health services	24	5	7	3	2	0	7
	meals	26	17	5	0	0	0	4
	dormitories	10	1	0	2	3	3	1
	transportations	19	1	4	6	2	0	6
ISC 1	special need services	20	1	6	7	2	1	3
	health services	25	5	5	5	4	0	6
	meals	27	15	6	2	0	0	4
	dormitories	14	1	0	3	2	5	3
	transportations	24	5	7	5	3	0	4
ISC 2	special need services	20	1	6	6	4	0	3
	health services	25	5	6	6	3	0	5
	meals	25	14	5	2	0	0	4
	dormitories	17	2	0	3	3	5	4
	transportations	24	5	8	4	3	0	4
ISC 3	special need services	20	1	6	5	4	1	3
	health services	24	5	5	7	3	0	4
	meals	26	15	6	1	0	0	4
	dormitories	25	2	3	9	4	3	4
	transportations	21	5	7	3	2	0	4
ISC 4	special need services	12	1	1	1	4	0	5
	health services	17	4	4	2	2	0	5
	meals	18	9	3	1	0	0	5
	dormitories	15	1	3	5	1	2	3
	transportations	16	5	4	2	1	0	4
ISC 5B	special need services	16	1	2	4	4	1	4
	health services	19	5	6	2	3	1	2
	meals	26	12	6	4	0	0	4
	dormitories	25	7	6	6	0	2	4
	transportations	11	2	3	2	2	0	2
ISC5A6	special need services	14	1	2	4	4	1	2
	health services	16	5	6	2	2	1	0
	meals	23	12	5	3	1	0	2
	dormitories	25	7	8	7	0	1	2
	transportations	9	2	2	2	2	0	1

Generally educational institutions are offering student welfare services more often than services to the general public. This pattern can be observed across all levels of education by comparing table 7 and 8.

Table 8: number of countries offering services for the general public, by type of services for the general public and by level of education

ISCED-level	services for the general public				
	non-formal education	museums	radio and television broadcasting	Sports	recreational or cultural programmes
ISC 0	5	4	3	7	7
ISC 1	7	7	4	13	12
ISC 2	9	7	4	12	12
ISC 3	14	9	5	14	15
ISC 4	9	4	3	10	9
ISC 5B	12	9	6	13	13
ISC 5A6	13	10	5	14	16

3 countries (Germany, Austria and Croatia) did not answer to question V.4). 3 countries (Switzerland, Serbia and Montenegro and Mexico) could not report any expenditure on ancillary services.

5 countries could fully report expenditure on ancillary services for all levels of education (France, Hungary, Norway, Romania and Japan). Moreover, Australia (full coverage from ISCED levels 1 to 6) and the United States of America (full coverage from ISCED levels 0 to 3 and 56 and partial coverage at ISCED level 4) could nearly fully report their expenditure on ancillary services

11 countries could partially report expenditure on ancillary services for all levels of education (Belgium, the Czech Republic, Denmark, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Poland, the Slovak Republic and Bulgaria). In addition to that, 9 more countries (Estonia, Spain, Ireland, Italy, the Netherlands, Portugal, Finland, Sweden and Turkey) could globally be categorised as countries with a partial coverage of expenditure on ancillary services. However, the level of availability of expenditure on ancillary services reported by these countries is variable (see the table below for more details):

Table 9: countries with varying level of availability of expenditure on ancillary services:

Country	Full coverage	Partial coverage	No coverage
Estonia	-	ISCED 0 to 5B	ISCED 5A6
Spain	ISCED 0 to 5B	-	ISCED 5A6
Ireland	ISCED 1 to 4	-	ISCED 56
Italy	ISCED 0 to 3	ISCED 56	ISCED 4
The Netherlands	ISCED 0 to 2	ISCED 5A6	ISCED 3 to 5B
Portugal	ISCED 56	ISCED 0	ISCED 1
Finland	ISCED 0 to 5B	-	ISCED 5A6
Sweden	ISCED 0 to 3	-	ISCED 4 to 6
Turkey	ISCED 1, 3 and 56	-	ISCED 0

Expenditure for special need services is partially reported as ancillary services in the UOE data collection by 2 countries (the Czech Republic and the United Kingdom) at all levels of education, by Greece at ISCED levels 0 to 3, by Italy at ISCED levels 56 and by Luxembourg at ISCED levels 0 to 4.

Expenditure for health services is partially reported as ancillary services in the UOE data collection by 4 countries (Bulgaria, Latvia, Poland and the United Kingdom) at all levels of education, by Greece and Italy at ISCED level 56 and by the Netherlands at ISCED level 5A6.

Expenditure for meals is partially reported as ancillary services in the UOE data collection by 4 countries (Belgium (only French Community), Lithuania, Poland and the United Kingdom) at all levels of education, by Estonia at ISCED levels 0 to 5B, by Cyprus at ISCED levels 0 to 3 and 56 and by Portugal at ISCED level 1.

Expenditure for dormitories is partially reported as ancillary services in the UOE data collection by 2 countries (Belgium and the United Kingdom) at all levels of education, by Denmark at ISCED levels 2 and 3, by Estonia at ISCED levels 3 to 5B, by Latvia at ISCED level 56, by Lithuania at ISCED levels 4 to 6, by Poland at ISCED levels 3 to 6 and by Portugal at ISCED level 1.

Expenditure for transportations (tickets only limited from home to school and back) is partially reported as ancillary services in the UOE data collection by 2 countries (Greece and the United Kingdom) at all levels of education, by Italy at ISCED level 56 and by Lithuania at ISCED levels 1 to 3. Expenditure for transportations (tickets for all travels) is partially reported as ancillary services in the UOE data collection by 3 countries (Greece, Lithuania and the United Kingdom) at all levels of education and by Latvia at ISCED levels 2 to 6.

Expenditure for non-formal education is partially reported as ancillary services in the UOE data collection by 3 countries (Greece, Latvia and the United Kingdom) at all levels of education.

5 countries (Estonia, Spain, Poland, the Slovak Republic and Norway) are reporting expenditure on child care at pre-primary level of education. It should be noticed, that the volume of child care expenditure is negligible in Spain and that Estonia has in the meantime revised its finance data for the UOE data collection 2003 and excluded child care expenditure.

J.6. Impact on indicators in education finance:

Expenditure on ancillary services is included in all indicators relying on direct public or private expenditure on education (e.g. expenditure per pupil/student, public expenditure on educational institutions as % of GDP, as % of total public expenditure, structural indicator spending on human resources etc.) and hence affects international comparability as some countries.

Section J.2.2.1 of the present document gives a good overview of the impact that expenditure on ancillary services may have on indicators.

The inclusion of expenditure on child care is inflating the direct public or private expenditure on education significantly at pre-primary level of education and may be inflating to a non negligible extent even the direct public or private expenditure on education for all levels of education. It has for instance an impact on the structural indicator spending on human resources or on indicators such as expenditure per pupil/student...

J.7. Evaluation and next steps:

Generally, most countries can at least cover ancillary services partially. Although the term partially is a bit fuzzy clear progress can be seen in the reporting and separation of ancillary services.

The reporting of ancillary services seem to be more complete at primary and secondary level of education than at tertiary level of education where some countries could not provide any expenditure on ancillary services. Countries should continue to improve their coverage of ancillary services at tertiary level of education.

Countries that could not provide any data on ancillary services should explore further data sources at the national level to improve their coverage in the mid-term. No evaluation could be undertaken for Germany, Austria and Croatia because of non-response. Both countries were able to provide data on expenditure for ancillary services at the UOE data collection 2003. Probably both countries report partially the expenditure for ancillary services. While Germany could separate the expenditure from direct public expenditure, Austria included them under direct public expenditure.

EUROSTAT will explore the feasibility of breaking down expenditure per pupil/student by service category. However, this makes only sense if many countries are able to provide the necessary data to accomplish the breakdown into educational core services, ancillary services and R&D expenditure as otherwise no EU-averages of sufficient quality could be calculated.

An objective should be in the mid-term to disseminate EU-averages broken down into educational core services, ancillary services and R&D expenditure for key indicators (i.e. expenditure per pupil/student, but also a breakdown for the structural indicator spending on human resources etc.).

Poland, the Slovak Republic and Norway should in the short-term develop a method to separate expenditure on child care from expenditure on education at the pre-primary level of education in order to exclude the child care expenditure as it is not considered to be within the scope of the UOE data collection.

K. MODULE VI: FINANCIAL AID TO PUPILS/STUDENTS:

K.1. What was requested:

Background information is required in the case of financial aid to pupils/students (including tax reductions or credits) to get a better overview of the different schemes that exist across countries to assist students and their families in their living costs or in the payments of tuition fees.

The criteria of eligibility for scholarships may be different from those for child allowances contingent to student status and may widely differ across levels of education and countries. Furthermore, no clear overview exists for the time being on whether financial aid to student is for living costs or for paying tuition fees. Therefore, we ask countries to distinguish between financial aid offered to support student living costs from aid offered to pay tuition fees (by level of education).

The questions related to special subsidies are necessary to clarify the definitions of specific subsidies in the UOE-manual that are for the moment quite fuzzy.

Moreover, some questions are related to these topics to explore the feasibility on collecting net student loans or tax reductions following also relevant discussions held during the last INES¹⁴ Technical Group meeting of OECD in July 2003 in Paris. In particular in the case of tax reductions that may be a substantial part of the financial aid in some countries, it is crucial to quantify their volume and to give some more information on the criteria of eligibility.

K.2. Identifications from previous comparability studies:

K.2.1. Findings from the First Comparability Study:

Countries have widely varying philosophies and policies concerning the division of the cost of tertiary education between individuals and society. Some European countries not only provide tertiary education free of charge but also give students substantial stipends for room, board, and other living expenses. Others provide tuition-free schooling but require students or their families (except, perhaps, those with low income) to cover living expenses themselves. In a few cases, tertiary students are required to pay tuition fees, but nearly all the students then receive offsetting government scholarships. Only a few countries-- most notably the United States and Japan--require large numbers of students both to pay substantial net tuition fees (that is, net of scholarships and other financial aid) and to finance most living expenses from their own or their family's resources. Student subsidies take a variety of forms. Different countries offer different mixes of grants and loans. In addition, countries use a number of less direct methods to help finance student living expenses, such as providing subsidized meals and housing, furnishing subsidies in kind (e.g., free transportation), offering family allowance payments contingent on student status, and allowing special tax benefits to families of postsecondary students.

A few countries also offer significant financial aid to upper-secondary students, mainly to help pay the living expenses of individuals of post-compulsory age who are still attending school.

The main expenditure comparability problems related to financial aid and subsidies for student living expenses identified by the First Comparability Study included:

- problems stemming from the commingling of student subsidies with expenditures for educational institutions,
- problems due to incomplete or inconsistent statistical coverage of financial aid, and

¹⁴ OECD project on Indicators for Education Systems

- problems in isolating the living expense-subsidy component of financial aid to students, and hence in sorting out the net household contribution to education expenditures.

The expenditure statistics of many countries provide incomplete coverage of financial aid to tertiary students. The incompleteness results, in most cases, from taking into account some forms of financial aid but not others. The data gaps translate into errors in comparing total national spending for tertiary education (institutional expenditures plus student subsidies). Incomplete reporting also makes it difficult to measure each country's subsidies for student living expenses and to estimate the share of the cost of tertiary education borne by households. In addition, the data limitations have thus far thwarted efforts to develop international-comparative indicators of financial aid itself. The last appears to be a significant loss, as many national education policymakers have expressed interest in precisely such comparisons.

The First Comparability Study identified gaps in the statistical coverage of financial aid are of several different kinds.

- First, some countries had reported only the scholarships and certain other subsidies provided by the central government, even though regional or local governments, private firms, and other private organizations also distribute aid to students. For the most part, this was only a minor problem, however, because central-government funding of financial aid usually dominates, even in countries that have decentralized other aspects of the financing of tertiary education.
- Second, the statistical coverage of loans to students had been scanty compared with the coverage of scholarships and other grants. One reason was that there was little discussion until just before the First Comparability Study, and hence no adequate guidance for data providers, on how student loans should be represented in expenditure statistics, existed: Gross or net of repayments? With or without taking interest payments and subsidies into account? A complicating factor is that student loans in some countries (in particular, the United States) come from private financial institutions, whose transactions are may not be reflected in standard education data collections.
- Third, in addition to items explicitly identified as student subsidies, some countries provided family allowances contingent on student status. For example, a national family allowance system that normally pays a certain sum to families for each child up to age 18 may let payments continue up to age 25 for persons enrolled as tertiary students. Arguably, the latter payments should be considered a form of student aid. Thus far, however, not all countries had acknowledged that contingent family allowances are functionally equivalent to scholarships, and most had not included them in their education expenditure statistics.
- Fourth, indirect subsidies for student living expenses, in the form of subsidized residence halls, dining facilities, student health services, free or reduced-price transportation, etc., often were omitted from education statistics or, when included, were difficult to identify and to separate from other education expenditures. Both the intermingling of these indirect subsidies with expenditures for educational services and the failure to combine them with direct subsidies detracted from the expenditure comparisons.
- Fifth, some countries provided special tax benefits to families with children enrolled in educational institutions. These may consist, for example, of a tax credit or a deduction from taxable income of a certain amount for each such child. Such subsidies are not normally taken into account in national statistics on education finance, and no provision has been made for including them in international data collections.

As part of the general restructuring of the 1995 finance data collection instrument, OECD took several steps to deal with the statistical problems concerning financial aid and subsidies for student living expenses. By far the most important was to separate expenditures for educational institutions from financial aid to students. The new finance data collection instruments include separate lines for reporting the amounts expended for each of these two distinct purposes by each funding source (i.e., central, regional, and local governments and private funders).

The new data collection instrument also distinguishes between the grant (scholarship) and loan components of financial aid to students.

K.2.2. Findings from the Second Comparability Study:

The Second Comparability Study identified a whole group of comparability problems related to the field of financial aid to students.

- Many of them were mainly problems of uneven coverage.
- Problems related to definitions: One issue here is the treatment of subsidies provided by institutions. Countries differ in how far they report such subsidies as direct expenditure to institutions or as public subsidies, which are channelled through institutions. The second was the question of subsidies in cash provided by institutions versus ancillary services.
- Another group of problems is related to the reporting praxis in indicators on education finance statistics. Questions on how to appropriately report public loans and subsidized private loans, or how to separate subsidies for tuition fees and for student living costs were discussed as well.

The section in the UOE Manual on public private transfer in table finance 1 was completely reorganised and clarified for the UOE data collection 2001. It was based on the conclusions of the first expert group meeting that took place at the beginning of the Second Comparability Study.

K.3. What has been evaluated for this report?

Question VI.1) will give some valuable information on what type of financial aid is available for students across the education systems. It informs at the same time on the importance of a certain type of financial aid to students in a country and on how many countries are using that instrument to distribute financial aid to students. It will be the basis for discussions whether to include tax reductions in the coverage of the UOE data collection.

Question VI.3) evaluates for what purposes financial aid to students is attributed (i.e. to pay tuition fees or to subsidise living expenses or a combination of both).

Whether countries report student loans net or gross will be examined through question VI.5). In particular, it will be evaluated whether countries would be able at the same time to provide **gross and net loans**.

Tax reduction is a form of financial aid to students that is not yet covered by the UOE data collection. Question VI.9) explores which countries do offer tax reductions or credits for educational purposes.

K.4. Definition in the UOE instructions manual:

Transfers and payments for education to private entities can be divided into two distinct categories:

- **Public subsidies to households** (e.g. financial aid to students) distinguish between four forms of aid:

- Scholarships and other grants,
- Child allowances contingent to student status,
- Special public subsidies in cash or in kind that are contingent on student status and
- Student loans, including those not attributable to household payments for educational institutions, such as subsidies for student living costs.

- **Public subsidies to other private entities** (e.g. government transfers and certain other payments (mainly subsidies) to other private entities such as commercial companies and non-profit organisations).

Transfers to households and other private entities **EXCLUDE**:

- **Any tax benefits** to students or their families, such as tax credits or deductions from taxable income,
- **Allowances that are independent of the educational status** of a child.

Scholarships and other grants:

This category **INCLUDES**

- public scholarships and
- all kinds of similar public grants, such as fellowships, awards and bursaries for students.

Government scholarships that are channelled through educational institutions for administrative purposes are considered government transfers to students.

Special public subsidies:

Special public subsidies are all those transfers to households that are linked to specific spending by students and are contingent upon the student status.

The special subsidies **EXCLUDE**

- all kinds of tuition costs, with the exception of tuition and other fees paid to institutions abroad. Only in exceptional cases will the payments go to educational institutions as fees for ancillary services, i.e. for lodging, meals, health services, or other welfare services furnished to students by the educational institutions. Those payments that go to institutions have to be treated with care so that subsidies attributable to institutions are separated out.

The special subsidies **INCLUDE**:

- Special subsidies for transport;
- Special subsidies for medical expenses;
- Special subsidies for books and supplies;
- Special subsidies for social and recreational purposes;
- Special subsidies for study abroad; and
- Other special subsidies.

Special public subsidies should cover the total value of special subsidies provided to students, either in cash or in kind, such as reduced-price travel on public transport systems.

Family allowances or child allowances:

- **INCLUDE** allowances that are **contingent upon student status**
- **EXCLUDE** allowances that are **independent of the educational status** of a child

☞ For example, if a country provides family allowances for all children up to age 18 regardless of educational status and provides additional allowances for young people aged 19-25 who are enrolled an educational institution, the allowances for young people 19-25 are included in scholarships and other grants, but the allowances for those aged 18 and below are excluded.

Some subsidies are clearly earmarked to cover tuition or other fees paid to institutions, whereas subsidies for general purposes can be used for tuition fees or other expenditure. In many cases, countries have to estimate, from certain assumptions, surveys or other information, what proportion of these subsidies should be attributed to payment for tuition.

Public grants to households attributable to tuition fees and not attributable to tuition fees:

Row **G10a** contains data on public grants to households that are attributable to educational institutions. This includes grants for payment of tuition fees and other fees to educational institutions. Row **G10b** contains data on public grants to households that are not attributable to educational institutions.

Some grants are clearly attributable to payment for tuition. Other subsidies can be clearly identified as expenditure other than on educational institutions. These are:

- Specific subsidies in cash and kind; and
- All subsidies to students not obliged to pay for tuition.

In the case for many other subsidies, the distinction is less clear. In that of subsidies for general purposes, the ideal (but probably impossible) breakdown attribution would be by destination of payment at the household level.

Student Loans:

Students loans are reported on a gross basis -- that is, without subtracting or netting out repayments or interest payments from the borrowers (students or households). Thus, student loan expenditure represent the total value of loans paid by government to students during the reference year. The cost to government of servicing these loans (i.e. interest rate subsidies and the cost of default payments) is not included.

Public loans to students and/or households are reported in rows C11, R11, L11 and G11 depending on which level of government provides them.

Students loans

INCLUDE

- public loans to students and/or households (gross amount)

EXCLUDE

- interest payments and repayment of the principal,
- government subsidy to private lenders of student public sector loans (included in public subsidies to other private subsidies),
- government payments to compensate for defaults under programmes of government-guaranteed private loans (included in public subsidies to other private subsidies).

Financial aid to students from other private entities:

Financial aids to students include:

- Scholarships and other grants provided to students by other private entities (reported in row E10). These include scholarships provided by businesses and religious or other non-profit organisations.
- Student loans from banks and other private lenders (reported in row E11, even if such loans are guaranteed or subsidised by government, or made through programmes of private lending organised by the government). Like the government loans, private loans must be reported as gross amounts, without the subtraction of payments of interest or repayments of the principal by the borrowers.

Total private financial aid to students (scholarships plus loans) is reported in row E12.

Note that public subsidies related to private loans that are guaranteed or subsidised by the government, or made through programmes of private lending organised by the government, must also be reported as public subsidies to other private entities in row G13.

K.5. Current reporting practice:

In question VI.1) of the survey on country profiles, countries were asked to report which types of financial aid to students exist in their countries. Financial aid to students has been split into 7 different categories:

- Scholarships (any kind of scholarships),
- Special subsidies (any kind of special subsidies),
- Loans from public administration,
- Loans from private financial institutions (commercial loans),
- Loans from private financial institutions (with support from the State),
- Child allowances contingent on student status and
- Tax reductions (any kind of tax reductions).

In analogy to question V.1), a ranking has been introduced in question VI.1) in order to rank the types of financial aid to students according to the number of beneficiaries.

At primary level of education, 11 countries offer scholarships, 16 special subsidies, 1 public loans, 1 commercial loans, 2 State guaranteed private loans, 16 child allowances contingent on student status and 14 tax reductions. In terms of number of beneficiaries child allowances contingent on student status and tax reductions have the most beneficiaries.

At lower secondary level of education, 14 countries provide scholarships, 16 special subsidies, 2 public loans, 2 commercial loans, 2 State guaranteed private loans, 15 child allowances contingent on student status and 15 tax reductions. In terms of number of beneficiaries child allowances contingent on student status and tax reductions have again the most beneficiaries.

At upper secondary level of education, 25 countries provide scholarships, 17 special subsidies, 6 public loans, 3 commercial loans, 4 State guaranteed private loans, 17 child allowances contingent on student status and 15 tax reductions. In terms of number of beneficiaries, scholarships, child allowances contingent on student status tax reductions have the most beneficiaries.

At post secondary non-tertiary level of education, 22 countries provide scholarships, 14 special subsidies, 8 public loans, 4 commercial loans, 3 State guaranteed private loans, 14 child allowances contingent on student status and 16 tax reductions. In terms of number of beneficiaries, scholarships, child allowances contingent on student status tax reductions have the most beneficiaries.

At ISCED level 5B, 30 countries provide scholarships, 20 special subsidies, 14 public loans, 12 commercial loans, 11 State guaranteed private loans, 17 child allowances contingent on student status and 18 tax reductions. In terms of number of beneficiaries, scholarships have the most beneficiaries.

At ISCED level 5A, 30 countries provide scholarships, 20 special subsidies, 16 public loans, 11 commercial loans, 12 State guaranteed private loans, 15 child allowances contingent on student status and 16 tax reductions. In terms of number of beneficiaries, scholarships have the most beneficiaries.

At ISCED level 6, 28 countries provide scholarships, 18 special subsidies, 12 public loans, 10 commercial loans, 12 State guaranteed private loans, 11 child allowances contingent on student status and 16 tax reductions. In terms of number of beneficiaries, scholarships have the most beneficiaries.

19 countries provide **gross** loans in the UOE data collection while the Slovak Republic reports net loans. Among the 19 countries reporting gross loans, **7 countries** (Belgium (only French Community), Germany, Latvia, the Netherlands, Norway, Turkey and the United States of America) could **also submit net loans** while 12 countries (Denmark, Italy, Cyprus, Lithuania, Hungary, Poland, Finland, Sweden, the United Kingdom, Switzerland, Japan and Mexico) could not.

In 8 countries tax reductions are non existent while in other 14 countries (Belgium, Estonia, Greece, France, Ireland, Italy, Luxembourg, Hungary, the Netherlands, Poland, the Slovak Republic, Finland, Norway and the United States of America) tax reduction linked to educational purposes is a form of subsidy to private households. Tax reductions exist in various different forms:

- tax reduction contingent on student status (Greece, France, Luxembourg (for students older than 18), the Netherlands (for students studying abroad not receiving a scholarship), Hungary, the Slovak Republic),
- tax deductions (Estonia, France, Hungary, Poland) for the purchase of educational goods and services (stationery, computer, software; however distinction by purpose may be very difficult – i.e. whether it can be attributed to education or work), contribution for ancillary services (Estonia, Poland - transportation children to school and back) or payments of tuition fees (Estonia, Ireland (students attending approved courses at private tertiary institutions), Italy (at ISCED 3), Poland(including non-formal education)),
- tax reductions for interest rates related to student loans (Norway, Finland),
- income tax reduction not linked to the status of pupil or student (Belgium; Italy (at ISCED levels 0 to 2), Luxembourg (until the age of 18)),
- tax reduction linked to criteria like income of the family, amount of expenditure (Greece)

K.6. Impact on indicators in education finance:

The reporting practice as regards financial aid to students has some immediate effects on the structural indicator spending on human resources (i.e. total public expenditure on education as % of GDP).

Particular attention should be paid to student loans from other private entities which could be quite an important share of total private expenditure on education.

Interpreting the indicator financial aid to students from public sources could be misleading if it turns out that certain countries rely heavily on such types of financial aid to students as private loans or tax reductions.

K.7. Evaluation and next steps:

Child allowances are offered by public authorities of 16 countries (the Czech Republic, Estonia, France, Lithuania, Luxembourg, Hungary, Austria, Poland, the Slovak Republic, Sweden, Bulgaria, Romania, Turkey, Serbia and Montenegro, Australia and Mexico) at primary and lower secondary level of education. This is remarkable in a sense that it was asked to provide **child allowances contingent on student status**. It is reminded that the notion of contingency on student status is the key criteria to apply as the UOE guidelines explicitly exclude child allowances **that are independent of the educational status** of a child:

- Can countries confirm that the child allowances reported at primary and lower secondary level of education, are all contingent on student status?
- Can countries confirm that they do not include any child allowances that are independent of the educational status of a child in the UOE data collection?

It is very important to ensure that child allowances that are independent of the educational status of a child are excluded given the importance of financial aid. An inclusion of child allowances that are independent of the educational status of a child would considerably inflate the financial aid to students compared to those countries.

From question VI.3) it appears that only 4 countries (Ireland at ISCED levels 56, Italy at ISCED levels 1 and 2, the Netherlands at ISCED level 2 to 5A and the United Kingdom for all ISCED levels) **are partially able to separate** financial aid to students attributed exclusively to pay tuition fees from financial aid to students for living expenses. Therefore, as the information gained through these two variables is rather negligible and to reduce slightly the burden of data providers it is proposed **to drop rows G10a and G10b** in table finance 1 of the UOE data collection.

All countries except one provide gross student loans as requested in the UOE data collection manual. Furthermore, only 6 countries would be able to provide also net loans. Therefore, it is proposed **not to change the definition of student loans** and **not to include a supplementary row for the collection of net student loans**.

Income tax and tax reduction is a rather complex issue as already headlined by the First Comparability Study. Nonetheless, it merits to be explored more in detail as up to **18 countries**¹⁵ (Belgium, the Czech Republic, Estonia, Greece, France, Ireland, Italy, Latvia, Luxembourg, Hungary, the Netherlands, Poland, the Slovak Republic, Finland, Norway, Bulgaria, Australia and the United States of America) report the existence of tax reductions as instrument to subsidise students and their families.

¹⁵ The number of countries having reported the existence of tax reductions in question VI.1) is higher than in question VI.9). The Czech Republic, Latvia, Bulgaria and Australia have not given any information as regards the kind of existing tax reductions in question VI.9).

First of all, it should be decided whether we are interested in the UOE data collection on the taxes students may have to pay. Two countries (the Netherlands and Finland) report that students pay taxes on their own revenue (including scholarships). This may be an interesting aspect when analysing the living conditions of students, however it seems not to fall under the scope of the UOE data collection, and it may be derived from household surveys like EU-SILC or the Household Budget Survey. Then, we should establish criteria according to which a tax reduction qualifies for the coverage of the UOE data collection:

- Should it be limited to educational programmes of regular education?
- Should it be contingent on student status?
- Should tax deductions only be counted for educational goods and services clearly attributable to the educational process? If yes, how to distinguish between the tax deductions of teachers and of pupils/students?
- Should it encompass deductions like interest payment of student loans or repayment of student loans to the principal?
- Should tax reductions fulfilling certain criteria to establish be included in the revised UOE data collection?

L. MODULE VII: PAYMENTS OF PRIVATE ENTERPRISES FOR SPECIFIED EDUCATIONAL ACTIVITIES:

L.1. What was requested:

In questionnaire finance 1, row E5a is dedicated to "specified educational activities" of private enterprises. As this may be a significant proportion of private expenditure on education EUROSTAT would like to know what kind of specified educational activities are offered by private firms in the different countries and if they are reported in the UOE data collection.

If such programmes exist but data are not available, it would be very useful to get an indicative estimate of the amount that private enterprises spent on specified educational activities.

L.2. Identifications from previous comparability studies:

L.2.1. Comparability problem for work-based component of school- and work-based programmes:

The treatment of expenditures for training apprentices under the dual system has a major effect on international comparisons of expenditures for upper-secondary education and lesser but still substantial effects on all broader comparisons in which upper-secondary spending is included. Participants in dual-system apprenticeship programs receive part of their instruction in schools and part in work places (hence the term "dual"). The typical arrangement in Germany and Austria is that students attend public vocational-technical schools one to two days per week and receive training in enterprises (mainly private firms but also public enterprises and administration) during the remainder of the week. The relationship between employer and apprentice is specified in a formal contract. Both the employer-based and the school-based training are provided by certified instructors according to official curricula, and students must pass standard national examinations to be certified in their fields. Essentially the full cost of the work-place training is borne by the employers. Dual-system apprenticeship training is the dominant form of upper-secondary education in both countries, enrolling more than 50 percent of all German and 70 percent of all Austrian upper-secondary students (as of 1992). The dual system also plays a large role in Switzerland and lesser but still significant roles in such countries as France and the Netherlands.

OECD has already resolved the most basic definitional issue concerning dual-system apprenticeship by stipulating that it qualifies as full-time education.

L.2.2. Recommendations from the First Comparability Study regarding the work-based component of school- and work-based programmes:

The effects of the current statistical shortcomings are evident. Because Germany was the only country to include private firms' expenditures for training apprentices, its expenditures for upper-secondary education were inflated compared to those of other countries with dual-system apprenticeship programs. Meanwhile, because the other countries that rely on dual-system apprenticeship omitted employer outlays, their upper-secondary expenditures were understated relative to those of all the countries that do not follow the dual-system approach. Eliminating this comparability problem will not be easy. What is required is for each of the countries concerned to develop estimates of the cost to employers of training apprentices under the dual system. The much simpler alternative of uniformly excluding all employers' costs of apprenticeship from comparisons of education spending is unacceptable. To adopt it would be to guarantee permanent non-comparability of expenditures for upper-secondary education between the countries that do and do not rely heavily on employer-based training.

In the new designed UOE data collection manuals 1995 and questionnaires it was emphasised that:

- (1) countries should include employers' expenditures for apprenticeship in their expenditure statistics and
- (2) the expenditures so reported should reflect only the cost of training, not the apprentices' salaries or other forms of compensation.

L.2.3. Recommendations from the Second Comparability Study regarding the work-based component of school- and work-based programmes:

In the Second Comparability Study it was reiterated that:

- employer expenses for training (should be fully included); and
- compensation for apprentices (should be excluded).

L.3. What has been evaluated for this report?

In questions VII.1) to VII.2) the existence of specified educational activities offered by private enterprises and its report in the finance tables of the UOE data collection has been checked.

Question VII.5) distinguishes between combined school and work-based training programmes and other specified educational activities classified by levels of education.

L.4. Definition in the UOE instructions manual:

L.4.1. Coverage of vocational and technical education:

The coverage of vocational and technical training in the statistics is dependent upon where the training takes place: at school, in the work place or a combination of both.

The following programmes are INCLUDED:

- Solely school-based vocational and technical training, in the same way that any other school based study is covered in the statistics,
- Combined school- and work-based programmes (such as dual-system apprenticeship): both the school- and work-based components are included if:
 - they are explicitly deemed to be parts of the education system and an education authority has oversight of them,
 - the school-based component accounts for at least 10 percent of the study over the whole length of the programme.

L.4.2 The distinction between school-based and combined school- and work-based vocational and technical programmes:

At the upper secondary level and the non-tertiary post secondary level, "vocational & prevocational programmes" are further divided into "school-based programmes" and "combined school and work-based programmes" on the basis of the amount of training that is provided in-school as opposed to training in the work place.

In distinguishing between school-based and combined school- and work-based programmes, classification should be made according to the amount of training provided in school.

In school-based programmes instruction takes place (either partly or exclusively) in educational institutions. These include special training centres for vocational education run by public or private authorities or enterprise-based special training centres if these qualify as educational institutions. These programmes can have an on-the-job training component, i.e. a component of some practical experience at the workplace.

Programmes should be classified as school-based if at least 75 per cent of the curriculum is presented in the school environment (covering the whole educational programme) where distance education is included.

Programmes are classified as combined school- and work-based if less than 75 per cent of the curriculum is presented in the school environment or through distance education. These programmes include:

- apprenticeship programmes organised in conjunction with educational authorities or educational institutions that involve concurrent school-based and work-based training; and
- programmes organised in conjunction with educational authorities or educational institutions that involve alternating intervals of attendance at educational institutions and participation in work-based training (programmes of training in alternation, sometimes referred to as “sandwich” programmes).

L.4.3 Public subsidies to other private entities for the provision of training at the workplace in combined school and work-based programmes

Public subsidies to other private entities for the provision of training at the workplace are reported as public subsidies to other private entities in rows C13, R13 and L13.

Consequently they are included as well in rows E3 and E5a as spending by other private entities.

Note that it is crucial to report all public payments for expenditure at the workplace also as subsidies in G13 and as expenditure in E3 and E5a.

L.4.4. Private educational expenditure at the workplace for the training of participants in combined school and work-based training programmes

Expenditure made by businesses within the work-based element of the combined school-and-work-based educational programmes which fall within the scope of the UOE (3.5) data collection are included. It is considered as expenditure by other private entities on independent private schools, and hence reported in row E3.

Because of the scale of expenditure of private companies in some countries on the work-based element of school and work-based training of apprentices and students, a special row (E5a) has been added to table finance 1 to distinguish this expenditure from other expenditure of private entities other than households.

Public subsidies to other private entities for the provision of training at the workplace is reported as public subsidies to other private entities in rows C13, R13 and L13. Consequently, they are included in rows E3 and E5a as spending by other private entities.

L.5. Current reporting practice:

22 countries (Belgium, the Czech Republic, Germany, Greece, Spain, France, Ireland, Italy, Cyprus, Lithuania, Luxembourg, Hungary, the Netherlands, Poland, the Slovak Republic, Finland, the United Kingdom, Norway, Switzerland, Romania, Turkey and Australia) report the existence of specified educational activities offered by private enterprises.

7 countries (Denmark, Estonia, Latvia, Sweden, Bulgaria, Japan and Mexico) declare that private enterprises do not have such activities in their education systems.

4 countries (Germany, Finland, Switzerland and Australia) report at least partially specified educational activities in the UOE data collection. Only in the case of Germany the coverage of specified educational activities seems to be comprehensive, in the case of Finland, Switzerland and Australia the expenditure reported seems to be limited to the public subsidies to private enterprises that offer specified educational activities.

18 out of the 22 countries (Belgium, the Czech Republic, Greece, Spain, France, Ireland, Italy, Cyprus, Lithuania, Luxembourg, Hungary, the Netherlands, Poland, the Slovak Republic, the United Kingdom, Norway, Romania and Turkey) in which private enterprises offer specified educational activities can not report the expenditure related to these activities.

It has to be noted that Austria did not reply to module VII although apprenticeships of a dual system type are very common. Hence, it is not clear to what extent the expenditure of private enterprises for specified educational activities are reported in the UOE data collection of Austria.

22 countries (Belgium, Germany, Greece, Spain, France, Italy, Cyprus, Lithuania, Luxembourg, Hungary, the Netherlands, Poland, the Slovak Republic, Finland, the United Kingdom, Norway, Switzerland, Romania, Turkey, Australia, Mexico and the United States of America) report that private enterprises offer combined school and work-based training programmes at ISCED level 3.

18 countries (Belgium, Germany, France, Greece, Spain, Ireland, Italy, Latvia, Lithuania, Luxembourg, Hungary, the Netherlands, Finland, the United Kingdom, Switzerland, Romania, Australia and the United States of America) report this at ISCED level 4, 12 countries (Greece, Spain, France, Hungary, the Netherlands, Finland, the United Kingdom, Switzerland, Turkey, Australia, Mexico and the United States of America) at ISCED level 5B and 6 countries (Greece, France, Hungary, the Netherlands, Turkey and the United States of America) at ISCED level 5A6.

3 countries (Belgium, the Czech Republic and Norway) report that private enterprises offer other specified educational activities at ISCED level 3. 2 countries (Belgium and the Czech Republic) report this from ISCED levels 4 to 5A6.

Mexico and the United States of America reported at VII.5) that combined school and work-based training programmes exist at ISCED levels 3 and 5B and ISCED levels 3 to 5A6 respectively. Whether their expenditure is reported in the UOE data collection is unclear.

L.6. Impact on indicators in education finance:

The omission of expenditure on other specified educational activities offered by enterprises creates significantly comparability problems for all indicators including direct private expenditure on education. Hence, the direct private expenditure on education of many countries that are not able to report specified educational activities offered by enterprises are severely understated.

Interpretation of indicators which include data on private expenditure on education should be done with the utmost care.

L.7. Evaluation and next steps:

The results derived from the survey on country profiles show that:

In the education systems of many countries private enterprises are involved in the training from pupils/students.

Many countries are still lacking data regarding school and work-based training programmes. Therefore, private educational expenditure data from many countries may be significantly understated;

Specified educational activities seem to be offered beyond the secondary level of education as in some countries such activities can be found even at ISCED level 5A6.

Given the importance of the data gap in the area of specified educational activities some action seems to be inevitable in the medium to long-term. One possibility could be to use data coming from future data collection exercises of the Survey on Continuous Vocational Training (CVTS) as it is foreseen to include initial training at the workplace. Hence, data about total expenditure will be available for most countries within the scope of CVTS.

The First Comparability Study already started with a brief description of different types of training programmes that were considered within the limits of UOE (e.g. dual system type apprenticeship, programmes of training in alternation) or beyond the limits (e.g. public and private labour training programmes, employer provided training of employees). More substantial framework and concepts have been developed by EUROSTAT through the initial vocational and training survey (VET data collection).

The types of training programmes identified in the First Comparability Study have been classified in the following table according to:

- Whether they are included or excluded from the UOE data collection,
- Which type of education they correspond to (e.g. formal, non-formal, continuous etc.),
- From which other statistical sources non-monetary data (e.g. VET, CVTS) and sometimes monetary data (e.g. CVTS) may be derived.

type of training programme	included in uoe?	type of education	other statistical source
dual system type apprenticeship	yes	formal education	VET
programmes of training in alternation	yes	formal education	VET
public and private labour training programmes	no	non-formal education	-
employer provided training of employees	no	continuous education	CVTS

M. MODULE VIII: FINANCING OF EDUCATIONAL INSTITUTIONS

M.1. What was requested:

The way educational institutions are financed is very useful metadata information as it may vary considerably across levels of education, type of institutions and countries.

It is of special importance to know how the private households, private enterprises and non-profit organisations are financing educational institutions at the primary and secondary as well as at the tertiary level of education. In fact, a public institution will be predominantly financed by funds from all levels of government and to some extent by tuition fees, donations, sponsoring etc. A private institution will get some public subsidies, tuition fees, donations, sponsoring etc., but as it is not clear if other ways of funding exist and which way is the predominant in your country, we would like to get a ranking by categories of funding indicating what kind of funds are predominantly financing education broken down by sectors of the economy (i.e. private households, non-profit organisations etc.). This module will help to better judge the extent of the private funding of educational institutions.

M.2. Identifications from previous comparability studies:

Countries differ widely in how they divide responsibilities for education finance between the public and private sectors. In some countries, public institutions and public funding sources predominate at every level of education, with private entities playing minor or even negligible roles. In others, private institutions, private funding sources, or both are important, at least at some levels.

These variations in public and private financial roles have major implications for international comparisons of spending. Hence, valid financial comparisons require statistics that cover both the public and private sectors.

Given the relevance of the public-private dimension, the First Comparability Study concluded that “it is a matter of concern that many countries provide incomplete coverage, or sometimes no coverage, of the private side of education spending. The most common statistical shortcoming is the failure to report some or all education spending of households, firms, and other private entities. A closely related problem is incomplete reporting or non-reporting of the expenditures of private educational institutions. The significance of these omissions depends not only on the proportion of private spending left unreported but also on the degree of private-sector participation in education in the country in question. The worst case, obviously, is the combination of substantial private involvement with little or no statistical coverage of private institutions or private funds”.

The education expenditures of private entities other than households include funds provided to educational institutions through grants and contracts for research or other services, donations in cash or in kind, and direct subventions (as from a church to a church-operated school). They also include scholarships and other forms of financial aid to students provided by private organizations. In addition, there are a few countries in which other forms of private spending pale in importance compared with the expenses incurred by private firms to educate apprentices and other trainees in the work place.

Incomplete reporting of private expenditures is one of the more pervasive comparability problems. It affects the expenditure statistics of most countries and all levels of education. Other things being equal, the total expenditures of countries that omit significant amounts of private spending will be understated relative to those of (1) countries with comprehensive data on expenditures from private sources and (2) countries with no significant private expenditures to report.

The principal problem addressed in this chapter--incomplete and inconsistent coverage of private expenditures--does not stem from flaws in the international definitions and hence cannot be cured by definitional improvements. OECD and UNESCO have made it clear all along that expenditure statistics should include outlays of both public and private institutions and funds from both public and private sources. However, the UOE finance data collection instruments prior to 1995 lacked a feature necessary for collecting adequate data on the private aspects of education finance: There was no provision for separate reporting of the expenditures of public and private institutions. It was important to add this provision, not only to permit breakdowns of spending by type of service provider but also to allow correct calculations of expenditure per student.

What steps need to be taken by the countries concerned? Normally, the reason that private expenditures are not reported is that they are not covered by the country's own internal data collection system. (The other possible cause, that funds from private sources have been intentionally netted out, is readily correctable.) More specifically, where the missing item is private funds for private institutions, the usual reason for the omission is that the country in question has no survey of the finances of those institutions. The preferred solution would be to establish such a survey, but this is unlikely to occur unless the country perceives a reason of its own for obtaining the data, beyond the desire to accommodate an international data collection agency.

In the absence of institutional surveys, two other possibilities exist for generating figures on expenditures of private institutions and funds from private sources. One approach is to obtain some of the required information from household surveys. In principle, this method could produce adequate data on tuition payments and other fees paid by households to institutions, but the lack of sufficiently detailed breakdowns by level of education and type of institution may limit the usefulness of household survey data in practice. Moreover, a household survey, by definition, cannot yield information about the education expenditures of firms, religious organizations, and other private entities.

The second alternative is to estimate private expenditures using data on pertinent attributes of the private institutions. The spending could be estimated for independent primary and secondary schools produced by multiplying the number of teachers at each level by the corresponding average teacher salary and then applying assumptions (based on public-sector analogs) regarding the ratio of expenditures for teachers to the total cost of schooling. The method is relatively crude (although some refinement should be possible), but relying on such estimates is arguably better than reporting no private spending at all.

M.3. What has been evaluated for this report?

The responses to questions VIII.1, VIII.2 and VIII.6 were combined. However, due to many inconsistencies in between the answers to these questions, the analysis is limited to some general findings that are not too surprising:

- Public funds from all levels of government are the major source of funding for public educational institutions in all countries.
- Participation to educational programmes in public educational institutions is free of charge (e.g. no tuition fees) in all countries at primary and lower secondary level of education and in most countries at upper secondary level of education.
- In many countries, public educational institutions charge moderate tuition fees at tertiary level of education. The bulk of the available resources is coming from public sources in all countries. In some countries some financial resources are provided in the form of other type of funds.
- Government dependent private institutions are largely funded through public money in all countries. Pupils and students contribute by paying tuition fees.

- Private independent institutions are mainly financed through tuition fees. Public subsidies exist in some countries, but are not the main source of funding.

Instead, to complement the evaluation of module VIII, which had as an objective to assess to which extend different ways of funding of educational institutions are currently covered in the UOE data collection, a detailed analysis of data submissions from countries will permit to identify data gaps, the focus being here clearly private expenditure.

Question VIII.5 gives some generic, but interesting information on how the private sector is participating to the funding of educational institutions.

M.4. Definition in the UOE instructions manual:

The expenditure in the table is classified by sources of funds:

- **Government (central, regional, local),**
- **International agencies and other foreign sources,**
- **Households and**
- **Other private entities** (including firms and religious institutions and other non-profit organisations).

Moreover, three types of financial transactions can be distinguished:

- Direct expenditure/payments on educational institutions;
- Intergovernmental transfers for education and
- Transfers to students or households and to other private entities.

M.5. Current reporting practice:

The evaluation will start with how data providers are currently reporting financial data in the UOE data collection. The analysis will focus on the share of expenditure by source of funds and by type of educational institution.

The main results derived from table 10 are that:

- Estonia, Lithuania, Poland, Switzerland could not report any private expenditure for public educational institutions;
- Payments from other private entities to public educational institutions are missing for Portugal, Norway, Bulgaria, Romania and Turkey;
- Payments from other private entities to public educational institutions are nil for Denmark, Greece, Latvia, Luxembourg and the United Kingdom.

Table 11 compares the share of expenditure by source of funds in government dependent private institutions. Table 11 shows that:

- The Czech Republic, Estonia, Italy, Hungary, Poland, Portugal, the Slovak Republic, Switzerland and Romania could not report private expenditure in government dependent private institutions;
- Payments from other private entities to government dependent private institutions are missing for Spain;
- Payments from other private entities to public educational institutions are nil for Latvia. Could **Latvia confirm** that private entities **do not finance at all government dependent private educational institutions?**

Table 12 shows that:

- Estonia, Lithuania, Luxembourg, Poland, Portugal, the Slovak Republic and Turkey could not report private expenditure in private independent institutions;
- Payments from other private entities to government dependent private institutions are missing for Ireland, Spain and Norway;
- Payments from other private entities to public educational institutions are nil for the United Kingdom. Could **the United Kingdom confirm** that private entities **do not finance at all private independent educational institutions**?

Table 10: expenditure by source of funds as a percentage of total expenditure in public educational institutions, for all levels of education combined

Countries	G1/N1	H1/N1	E1/N1	P1/N1
BE	93	4	2	6
CZ	90	6	3	10
DK	97	3	n	3
DE	96	x	x	4
EE	97	x	x	3
GR	100	0	n	0
ES	95	4	1	5
FR	95	4	1	5
IE	92	6	1	6
IT	95	4	1	5
CY	96	0	2	2
LV	89	11	n	11
LT	x	m	m	m
LU	100	n	n	n
HU	88	5	7	12
NL	95	2	2	5
AT	99	1	x	1
PL	x	m	m	m
PT	98	2	m	2
SK	95	1	1	3
FI	98	x	x	2
SE	96	0	3	3
UK	100	a	n	n
NO	100	x	m	m
CH	100	m	m	m
BG	89	11	m	11
RO	94	6	m	m
TR	99	1	m	1

With:

G1/N1: government expenditure as percentage of total expenditure in public institutions, for all levels of education combined;

H1/N1: private household expenditure as percentage of total expenditure in public institutions, for all levels of education combined;

E1/N1: expenditure of other private entities as percentage of total expenditure in public institutions, for all levels of education combined;

P1/N1: private expenditure as percentage of total expenditure in public institutions, for all levels of education combined.

Table 11: expenditure by source of funds as a percentage of total expenditure in government dependent private education institutions, for all levels of education combined

Countries	G2/N2	H2/N2	E2/N2	P2/N2
BE	92	6	2	8
CZ	100	n	m	n
DK	83	17	n	17
DE	64	x	x	36
EE	100	m	m	m
GR	a	a	a	a
ES	100	x	m	x
FR	77	15	8	23
IE	a	a	a	a
IT	100	m	m	m
CY	37	x	x	63
LV	56	40	n	40
LT	a	a	a	a
LU	100	0	0	0
HU	100	m	m	m
NL	90	7	4	10
AT	15	32	53	85
PL	x	x	x	x
PT	100	m	m	m
SK	100	m	m	m
FI	95	x	x	5
SE	98	2	a	2
UK	80	13	7	20
NO	100	x	m	m
CH	100	m	m	m
BG	a	a	a	a
RO	m	m	m	m
TR	a	a	a	a

With:

G2/N2: government expenditure as percentage of total expenditure in government dependent private institutions, for all levels of education combined;

H2/N2: private household expenditure as percentage of total expenditure in government dependent private institutions, for all levels of education combined;

E2/N2: expenditure of other private entities as percentage of total expenditure in government dependent private institutions, for all levels of education combined;

P2/N2: private expenditure as percentage of total expenditure in government dependent private institutions, for all levels of education combined

Table 12: expenditure by source of funds as a percentage of total expenditure in private independent education institutions, for all levels of education combined

Countries	G3/N3	H3/N3	E3/N3	P3/N3
BE	a	a	a	a
CZ	a	a	a	a
DK	a	a	a	a
DE	20	x	x	80
EE	100	m	m	m
GR	0	100	0	100
ES	n	x	m	x
FR	0	80	20	100
IE	n	100	m	100
IT	15	78	6	85
CY	2	98	0	98
LV	12	88	0	86
LT	x	m	m	m
LU	m	m	m	m
HU	a	a	a	a
NL	a	a	a	a
AT	x	x	x	x
PL	x	m	m	m
PT	100	m	m	m
SK	m	m	m	m
FI	a	a	a	a
SE	77	m	21	21
UK	n	100	n	100
NO	100	x	m	m
CH	a	m	100	m
BG	a	100	m	100
RO	a	a	a	a
TR	100	m	m	m

With:

G3/N3: government expenditure as percentage of total expenditure in private independent institutions, for all levels of education combined;

H3/N3: private household expenditure as percentage of total expenditure in private independent institutions, for all levels of education combined;

E3/N3: expenditure of other private entities as percentage of total expenditure in private independent institutions, for all levels of education combined;

P3/N3: private expenditure as percentage of total expenditure in private independent institutions, for all levels of education combined

By combining the results in tables 10 to 12 it can be furthermore derived that:

- Lithuania and Poland could not break down public expenditure by type of educational institutions.

How the private sector is financing the educational institutions will be described in the following. The results are based on the responses from countries to question VIII.5).

In general, when private households participate to the funding of educational institutions they are paying tuition fees (26 countries). Sometimes they give donations (Belgium, Ireland, Lithuania, Luxembourg, Hungary, the Slovak Republic, Finland, Sweden, Switzerland, Bulgaria and Turkey), sponsor educational institutions (Ireland, Finland, the Slovak Republic, Bulgaria and Turkey) or even finance research activities (Sweden and Bulgaria).

When enterprises participate to the funding of educational institutions they often finance research activities (Belgium, the Czech Republic, Estonia, Greece, Spain, France, Ireland, Italy, Cyprus, Latvia, Lithuania, Hungary, the Netherlands, the Slovak Republic, Finland, Sweden, the United Kingdom, Switzerland and Bulgaria), sponsor educational institutions (Belgium (only Flemish Community), the Czech Republic, Estonia, Greece, Spain, Ireland, Italy, Cyprus, Latvia, Lithuania, Hungary, Poland, the Slovak Republic, Finland, Sweden, the United Kingdom, Switzerland, Bulgaria and Turkey), provide donations (Belgium, the Czech Republic, Estonia, Greece, Ireland, Italy, Cyprus, Lithuania, Luxembourg, Poland, the Slovak Republic, Finland, Sweden, the United Kingdom, Switzerland, Bulgaria and Turkey) and even tuition fees (Estonia, Ireland, Latvia, Lithuania, Slovak Republic, Bulgaria).

Non-profit organisations are contributing to the funding of educational institutions through donations (Belgium, the Czech Republic, Estonia, Greece, Spain, Ireland, Italy, Cyprus, Lithuania, Hungary, Poland, the Slovak Republic, Finland, Sweden, the United Kingdom, Switzerland, Bulgaria and Turkey), financing of research activities (Belgium, the Czech Republic, Greece, France, Ireland, Italy, the Netherlands, the Slovak Republic, Finland, Sweden, the United Kingdom and Bulgaria), sponsoring (Belgium (only Flemish Community), the Czech Republic, Ireland, Italy, Latvia, Lithuania, the Slovak Republic, Finland, Bulgaria and Turkey) or the payment of tuition fees (Slovak Republic and Bulgaria).

M.6. Impact on indicators in education finance:

Three objective indicators of the list established by the Director General Education and Culture of the European Commission are including private educational expenditure:

- Expenditure on educational institutions from private sources as % of GDP, for all levels of education combined (indicator 1.5.B),
- Annual expenditure on public and private educational institutions per pupil/student in EUR PPS, by level of education, based on full-time equivalents (indicator 1.5.D),
- Annual expenditure on public and private educational institutions per pupil/student compared to GDP per capita, by level of education, based on full-time equivalents (indicator 1.5.E).

Hence, private educational expenditure may have a strong impact on the quality of these indicators.

M.7. Evaluation and next steps:

Because data gaps affect **indicators considered as particularly important by policy makers**, it is essential to continue to improve **the coverage of private expenditure on education**.

The Czech Republic, Estonia, Italy, Lithuania, Luxembourg, Hungary, Poland, Portugal, the Slovak Republic, Switzerland, Romania and Turkey should take all necessary steps to at least partially report private expenditure on education. In particular, the coverage of payments from private households and from other private entities to educational institutions should be significantly increased in the mid-term **to allow a better coverage of indicators 1.5.B, 1.5.D and 1.5.E**.

Some ideas to fill the data gaps are described in section M.1 of the document. It is understood that it is a difficult and complex task, but actions should be undertaken to explore whether alternative data sources could provide regular data of an acceptable quality.

As module VIII is closely related to other modules (in particular to module IV and VII), actions relevant to improve the coverage of private expenditure on education have already been proposed in modules IV and VII and therefore will not be repeated here.

N. SUMMARY CONCLUSIONS OF THE SURVEY ON COUNTRY PROFILES:

Module I:

Portugal and Turkey should take all necessary steps to ensure the reporting of public expenditure for all levels of government in the mid-term.

Module II:

The separation of intergovernmental transfers earmarked for education – though not an essential task to improve the quality of the UOE data collection – should be undertaken in the mid- to long-term for instance by implementing into the government expenditure recording a variable collecting intergovernmental transfers by function of government.

Module III.1)

Data providers of countries having partly funded or unfunded pension systems **should apply the methodology used by national accountants of their country to report imputed social contributions** to the international organisations administering the UOE data collection. For the time being, according to experts on National Accounts in EUROSTAT two different methodologies delivering identical results are accepted at international level (**see the annex**).

EUROSTAT proposes to revise section 6.1.1.3.9 and annex 1 of the UOE data collection manual with examples of methods currently used by national accountants in Member States.

EUROSTAT will maintain a regular exchange of information between National Accounts and experts on education finance to capture any changes in the reporting practice on imputed social contributions.

Countries (Greece and Portugal) having partly funded or unfunded pension systems and not yet reporting retirement expenditure should implement them **in their submission of finance data as soon as possible**.

Countries reporting retirement expenditure and being not in line with the reporting practice of their national accountants should **adopt the methodology used by their national accountants in the submission of finance data as soon as possible**.

Countries reporting retirement expenditure and being in line with the reporting practice of their national accountants should contact their national accountants before each data collection round to permanently ensure the consistency with National Accounts.

Module III.2)

Countries reporting depreciation or interest rates as capital expenditure in the UOE data collection **shall try to separate and exclude the depreciation and interest rates from the data they report in tables finance 1 and 2**.

It is proposed **to further exclude debt servicing from tables finance 1 and 2** (i.e. to limit its collection to table finance sup 2) as still less than one fourth of the countries participating to the UOE data collection are able to provide such data.

A proposal could be to explore in the long-term whether it would be feasible to measure precisely the value of the capital stock. However, it is understood that before undertaking such a quick survey an accurate elaboration of concepts seems necessary.

EUROSTAT proposes to further precise the definition of capital expenditure by including the recommendation on how to categorise leasing expenditure into the UOE data collection.

Module IV:

The reporting practice shows that countries seem to consider different sets of items as educational goods and services. It becomes evident from the reporting practice that a **comprehensive list of educational goods and services which is commonly agreed at international level** is necessary in the short-term to improve the quality of household expenditure. In particular, it is essential before attempting to harmonise data collections at national level or at international level (e.g. by including one ad-hoc module to one of the next rounds of the household budget survey).

- Would a matrix classifying household expenditure by destination and purpose help to precise the instructions in the UOE manual?
- Do you share the opinion that it is essential to establish a comprehensive list of educational goods and services, for instance by e-mail consultation of the education finance data providers of all countries involved in the UOE data collection?
- Would you agree with the timetable proposed by EUROSTAT (start a consultation of countries by April 2005 and present a comprehensive list of educational goods and services by autumn 2005)?

Module V:

Countries should continue to improve their coverage of ancillary services at tertiary level of education.

Poland, the Slovak Republic and Norway should in the short-term develop a method to separate expenditure on child care from expenditure on education at the pre-primary level of education in order to exclude the child care expenditure as it is not considered to be within the scope of the UOE data collection.

Module VI:

- Can countries confirm that the child allowances reported at primary and lower secondary level of education, are all contingent on student status?
- Can countries confirm that they **do not include any child allowances that are independent of the educational status of a child** in the UOE data collection?

From question VI.3) it appears that only 3 countries **are partially able to separate** financial aid to students attributed exclusively to pay tuition fees from financial aid to students for living expenses. Therefore, as the information gained through these two variables is rather negligible and to reduce slightly the burden of data providers it is proposed **to drop rows G10a and G10b** in table finance 1 of the UOE data collection.

All countries except one provide gross student loans as requested in the UOE data collection manual. Furthermore, only 6 countries would be able to provide also net loans. Therefore, it is proposed **not to change the definition of student loans** and **not to include a supplementary row for the collection of net student loans**.

Income tax and tax reduction is a rather complex issue as already headlined by the First Comparability Study. Nonetheless, it merits to be explored more in detail as up to **17 countries** report the existence of tax reductions as instrument to subsidise students and their families.

Criteria should be established according to which a tax reduction qualifies for the coverage of the UOE data collection:

- Should it be limited to educational programmes of regular education?
- Should it be contingent on student status?
- Should tax deductions only be counted for educational goods and services clearly attributable to the educational process? If yes, how to distinguish between the tax deductions of teachers and of pupils/students?
- Should it encompass deductions like interest payment of student loans or repayment of student loans to the principal?
- Should tax reductions fulfilling certain criteria **be included in the revised UOE data collection?**

Module VIII:

Because data gaps affect **indicators considered as particularly important by policy makers**, it is essential to continue to improve **the coverage of private expenditure on education**.

The Czech Republic, Estonia, Italy, Lithuania, Luxembourg, Hungary, Poland, Portugal, the Slovak Republic, Switzerland, Romania and Turkey should take all necessary steps to at least partially report private expenditure on education. In particular, the coverage of payments from private households and from other private entities to educational institutions should be significantly increased in the mid-term **to allow a better coverage of indicators 1.5.B, 1.5.D and 1.5.E**.

ANNEX: GUIDELINES FOR PRACTICAL IMPLEMENTATION OF IMPUTED SOCIAL CONTRIBUTIONS (FOLLOWING REPORTING PRACTICES FROM COUNTRIES REPORTING IMPUTED SOCIAL CONTRIBUTIONS WITHIN THE FRAMEWORK OF ESA 95)

1. INTRODUCTION:

The first part of module III was evaluating the reporting practice of countries in the case of retirement expenditure. It is commonly agreed that in the case of unfunded or partly funded retirement system, a portion of the retirement expenditure need to be estimated. It turned out that countries were using two methodologies that are both considered to be in line with ESA 95.

In order to get more qualified information the education experts in EUROSTAT consulted the National Accounts experts on the topic imputed social contributions. It turned out that two different methodologies are indeed considered by National Account experts as valid as giving – under the hypothesis that certain assumptions are met - identical results.

In the following, relevant sections of a paper on imputed social contributions that has been presented by EUROSTAT at the 42nd meeting of the GNP Committee in July 2003 are quoted for information. The geographical coverage is for the time being limited to Old Member States as no detailed information was yet available from other countries.

2. OVERVIEW:

Member States use different methods to estimate government D.122. Several Member States estimate all or most of government D.122 based on the unfunded employee social benefits paid (D.623), less employees' contributions. This method is called the *benefits-paid method* in this paper. Some Member States use a percentage of wages and salaries as the main method (*wage-share method* for short). The wage-shares are derived from various sources such as the contribution rates used in other (funded or unfunded) schemes or contribution rates derived from actuarial estimates undertaken by government for its employer's schemes. In some cases, the source data are *notional employer's social contributions* explicitly shown in the accounts of government. These are amounts calculated actuarially by government but which are not actually paid to a fund or social security unit. Some Member States use different methods for different groups of government employees or for different government sub-sectors. The table below gives an overview of the methods used and the benefits covered by the unfunded schemes.

Employers' imputed social contributions (D.122) for general government (S.13) – size, trend, methods used and social benefits covered

	B	DK	D	EL	E	F	IRL	I	L	NL	A	P	FIN	S	UK
Method used (rough share of total government D.122 compiled with the method)															
Benefits-paid method	100%	100%	5%	100%	100%	100%		100%	100%	20%	100%	100%			60%
Wage-share method			95%				100%			80%			100%	100%	40%
Most important social benefits covered in 2001 (X = large share, x= small share of D.122)															
Pensions	X	X	X	X	X	X	X		X	x	X		X	X	X
Health			x									X			
Sick leave pay										X					x
Other	x		x					X		X					x

Source: Eurostat, National Accounts, inventories and direct information from Member States

The methods chosen often reflect the specific situation in a country. The importance of unfunded schemes operated by government for its own employees varies a lot across countries. In some countries these schemes have been largely or completely abandoned. Also the characteristics of the schemes are very different. The schemes may cover all or most government employees or only specific groups (only officials, only the military, etc.). The unfunded benefits may include those paid to current employees (such as health insurance or maternity leave) or pensions for former employees. Employees may or may not pay some contribution to the schemes. In some countries the number of employees covered by the scheme has been increasing. In other countries the government policy is to reduce the number of employees covered by such schemes gradually, or to change to a different scheme at once. This diversity makes clear that a method that produces good estimates for one country or scheme may be inadequate for the circumstances in another country or scheme.

ESA 95 (§ 4.99) is clear that the benefits-paid method may result in a weak estimate of D.122 (i.e. employer's imputed social contributions) if a significant proportion of D.623 (i.e. unfunded employee social benefits) is pension payments and if the ratio of current employees to pensioners in the unfunded scheme changes significantly. This led the GNP Committee to look into this issue in 1996.

This document provides summary descriptions of the ESA and SNA treatment of D.122 (section 3), the methods that could be used to estimate D.122 (section 4), the methods currently used in EU Member States (section 5). Finally, the document offers some conclusions (section 6).

3. ESA AND SNA PRINCIPLES:

ESA and SNA classify social insurance schemes into 3 categories:

- *Social security schemes* operated by government (often pay-as-you-go (PAYG) schemes, benefits not necessarily linked to contributions, units classified in S.1314, no service charge)
- *Private funded social insurance schemes* (benefits typically linked to contributions)
 - Insurance companies and autonomous pension funds (units classified in S.125, service charge)
 - Non-autonomous funds (units classified in the sector of the employer, no service charge)
- *Unfunded social insurance schemes* operated by employers (no separate units, transactions are classified in the sector of the employer, no service charge)

Social insurance schemes organised by government for their own employees are classified either as private funded schemes (if special reserves are recognised) or as unfunded social insurance schemes. (SNA 8.63) Employers' imputed social contributions (D.122) are associated to employers operating unfunded social insurance schemes. These employers may be regarded as operating 'ancillary social security funds'. In practice, unfunded social benefits paid (D.623) are observable whereas the associated D.122 as part of compensation of employees (D.1) needs to be estimated. D.122 is imputed to get a complete measure of labour costs at the time when the work is done. These imputed transactions are then re-routed in the same way as employers' actual social contributions to households and back to the employers' sectors (i.e. to the ancillary social security funds), as households' imputed social contributions (D.612).

The D.122 flows are recorded first as uses in the generation of income account and as resources of households in the distribution of primary income account. Then, D.612 is returned to the sectors where the D.122 came from, i.e. recorded as uses of households and as resources of the employers' sectors in the secondary distribution of income account. D.623 is recorded in the secondary distribution of income accounts of the employers' sectors as uses, and as resources for households.

Of these three flows, only changes to D.122 could have an impact on GDP via the level of compensation of employees. For market producers this would be offset by an equivalent change in operating surplus. Hence, the only impact on GDP would be via valuation of non-market output.

There could also be an impact on the balance of compensation of employees paid to/received from the rest of the world and hence on the difference between GDP and GNI. This effect is likely to be small. Inflows of employers' imputed social contributions (if any) would probably be quite difficult to estimate. According to New Cronos data, only Belgium has D.122 flows from the rest of the world and D.612 flows to the rest of the world (550 million euro in 2001 from/to S.212 - EU institutions).

ESA 95 (§ 4.99) and SNA 93 (§§ 7.45-7.47) state that, in principle, the amount of D.122 should be determined by reference to the employers' future obligations to provide benefits. Their value should be based on the same kind of actuarial considerations that determine the levels of premiums charged by insurance enterprises. The imputed value should be equal to the amount of social contributions that would be needed to secure the de facto entitlements to the social benefits the employees accumulate. These amounts depend not only on the levels of the benefits currently payable but also on the ways in which employers' liabilities under such schemes are likely to evolve in the future as a result of factors such as expected changes in the numbers, age distribution and life expectancies of their present and previous employees.

Both ESA and SNA accept that the actuarial estimation of imputed social contributions is often not possible in practice. The ESA (§ 4.99) states that "in practice, however, it may be difficult to decide how large such imputed contributions should be. The enterprise may make estimates itself, perhaps on the basis of the contributions paid into similar funded schemes, in order to calculate its likely liabilities in the future. Otherwise, the only practical alternative may be to use the unfunded social benefits payable by the enterprise during the same accounting period (after deducting actual contributions made by employees themselves) as an estimate of the imputed remuneration that would be needed to cover the imputed contributions. While there are obviously many reasons why the value of the imputed contributions that would be needed may diverge from the unfunded social benefits actually paid in the same period, such as the changing composition and age structure of the enterprise's labour force, the benefits actually paid in the current period (less employees' social contributions) may nevertheless provide sufficient estimates of the contributions and associated imputed remuneration."

For pensions, the ESA (ESA 95 § 4.99) specifies that "when *as a result of political events or economic changes*, the ratio between the number currently employed and the number receiving pensions changes appreciably and becomes abnormal, the value of the imputed contributions for current employees should be estimated, and will be different from the actual value of the pensions paid out. A reasonable percentage of wages and salaries paid to current employees can be used for this purpose."

For wages and salaries which employers continue to pay temporarily in the case of sickness, injury, maternity, disability, redundancy etc. the ESA 95 (§ 4.07 b) specifies that "these payments are treated as unfunded employee social benefits (D.623), with the same amounts being shown under employers' imputed social contributions (D.122);"

And footnote to § 4.10 states that “employers’ imputed social contributions include an amount equal in value to the wages and salaries which employers temporarily continue to pay in the event of the sickness, maternity, industrial injury, disability, redundancy, etc. of their employees, if that amount can be separated.”

As to the time of recording the ESA (§ 4.101) makes a distinction between compulsory and voluntary social benefits. The imputed social contributions which represent the counterpart of compulsory direct social benefits are to be recorded at the time the obligation to pay the benefits arises, i.e. (in principle) in the period during which the work is done by the employees. Imputed social contributions which represent the counterpart of voluntary direct social benefits are to be recorded at the time the benefits are provided. This introduces a potentially difficult distinction when in practice the benefits-paid method is used to estimate D.122 and D.612 from D.623. For voluntary benefits (and ignoring any employees’ contributions), the total amounts recorded under headings D.122, D. 612 and D.623 would always have to be identical by definition so that for voluntary contributions the only correct method would be benefits-paid. For contributions that are the counterpart of compulsory social benefits actuarial estimates of the imputed contributions should, in principle, be made. The amounts recorded under D.122 and D.612 would then differ from the benefits recorded under D.623. In practice, this distinction is not very important as voluntary benefits (e.g. ad hoc grants in cases of hardship) can be assumed to be small.

Interpretation of the ESA guidance on estimating D.122:

The wording of ESA and SNA makes clear that the reference system for D.122 calculation should in principle be private funded schemes rather than government pay-as-you-go schemes. There should be a link between the contributions and the (future) benefits receivable, in particular for pension contributions. In principle, D.122 should be estimated based on actuarial considerations, i.e. taking account of the current and likely future salary level, age and gender distribution of current employees, the entitlements to (future) benefits, the average life expectancy, etc. The employer’s own (actuarial) estimates could be used where available. According to ESA 95, explicit exceptions to the principle of actuarial calculations are voluntary benefits (which will be small in practice) and wages and salaries which the employer continues to pay temporarily in the case of sickness, accident, maternity, etc. The ESA also implies that benefits paid provide a good approximation for D.122 as long as the composition and age structure of the work force and other key characteristics of the unfunded employer’s scheme (such as the level of benefits) are stable over time.

This interpretation raises two questions:

- 1- What are the precise circumstances for the benefits-paid method to become inappropriate?
- 2- Can it be assumed that the results of actuarial estimates undertaken by the employer and the benefits-paid method will produce similar results when the key characteristics of the scheme are stable over time?

When does the benefits-paid method become inappropriate?

The principle of the ESA is that D.122 should be estimated in such a way that the costs of labour are correctly measured at the time when the work is done. In terms of the methods, ESA is clear that the benefits-paid method is the correct method for certain social benefits such as voluntary benefits and the temporary payment of wages and salaries in the case of sickness. The ESA is also clear that for pensions the benefits-paid method is in principle not appropriate, except when the key characteristics of the unfunded employer’s scheme are stable over time.

This means that the appropriateness of the benefits-paid method needs to be checked for those types of benefits where there is a risk of a significant intertemporal discrepancy between the period in which the benefits are paid and the period in which the entitlements to the benefits accrue. These will be old age and health insurance for pensioners and survivors. One could of course argue that family allowances, maternity benefits, unemployment benefits, insurance against accidents at work or health insurance for employees will all be sensitive to the age and gender composition of the work force. However, in practice significant intertemporal effects would only arise when the scheme is large and the age and/or gender composition of the employees covered is extreme.

For pensions, the ESA 95 (§ 4.99) refers to the case when the ratio between current employees and pensioners “... as a result of political events or economic changes ...becomes abnormal”. It is not quite clear whether the “political events or economic changes” also include normal demographic changes in the ratio of current employees to pensioners. It may be useful to list a number of cases that could make the use of the benefits-paid method inappropriate.

1. Government changes to another system (and pays actual contributions) for current employees but keeps paying unfunded benefits to pensioners that retired prior to the change in the system.
2. Government offers early retirement to officials as a once-off measure.
3. The pension system for some part of government employees changes, for example as a side effect of privatising some functions of government (e.g. telecoms, railways).
4. From a certain date onwards, all new government employees are insured privately or through the government-run social security system, i.e. the unfunded scheme is closed to new members. A variant of this case could be that in a country where only officials are covered by the unfunded scheme the government changes the policy for making government employees officials.
5. For some years, government does not hire new employees to replace those retiring. This leads to a gradual change in the ratio between current and former employees covered by the unfunded scheme.
6. Government raises the pension age or changes the level of benefits receivable. Typically, the pension age and level of benefits receivable will be changed less for older employees than for younger employees.
7. Government persistently increases the number of current employees that are covered by the unfunded scheme. (This appears to have been more common in the 60s and 70s than it is today.)
8. All government and non-government pensioners live ever longer while everything else is stable. Benefits paid will increase and the ratio between current employees and pensioners will change due to increased life expectancy.

In case 1 it would be wrong to keep imputing any D.122. If the members of the unfunded scheme are put under the general social security scheme, government will typically pay actual employers' contributions that are determined as a share of wages. The D.122 flow will be replaced by a D.121 flow of similar size (unless the system change is coupled with changes in the level of future benefits, etc.). If the unfunded scheme is replaced by a private funded scheme, there will a large capital transfer recorded as D.99. D.122 flows will be replaced by D.121 flows.

In cases 2 to 7 there would be a need to adjust D.122 estimates. Cases 2 and 3, if significant, will require an immediate adjustment. The effects of cases 3 to 7 will generally need several years to produce a significant bias so such changes can be accommodated in revision years.

As regards case 8, the ESA 95 (§ 4.99) refers to the case when the ratio between current employees and pensioners “... as a result of political events or economic changes ...becomes abnormal”. It is not quite clear whether the “political events or economic changes” also include normal demographic changes in the ratio of current employees to pensioners. Probably this is not the case.¹⁶ While D.122 would increase in case 8, the quality of an estimate of D.122 based on benefits paid would not change as also government pay-as-you-go systems and private funded schemes would increase contributions (or reduce benefits) by a similar proportion.

Most cases have been taken from the inventories or direct information from countries and reflect current policy trends, i.e. away from using employers’ unfunded schemes. It is clear that when the size of government D.122 is significant, the method for estimating D.122 needs to be reviewed on a case-by-case basis when there is a significant change in the characteristics of an unfunded scheme.

For stable schemes, are the results of actuarial estimates similar to benefits paid?

ESA and SNA state that D.122 “should be based on the same kind of actuarial considerations that determine the levels of premiums charged by insurance enterprises.” In practice, D.122 could be estimated based on observed contribution rates or ratios taken from comparable private funded schemes or from actuarial estimates made for the unfunded social insurance schemes operated by government.

Funded schemes, however, create assets for the policyholders. These assets generate (in most years) property income attributable to the policyholders (D.44) which results in lower premiums compared to a situation with no asset and no property income. The difference can be very significant. Neither ESA nor SNA foresee any imputed insurance reserves and associated property income of policyholders and changes in net equity of households in pension funds. Nor do ESA and SNA foresee any imputed assets and liabilities for unfunded schemes. This suggests that to be in line with ESA/SNA the D.122 should be determined by actuarial considerations with respect to all relevant factors such as age distribution, future benefits, etc., but *excluding* any property income on the accumulated imputed contributions.

Another argument for excluding property income is that ESA and SNA imply that the benefits-paid method is acceptable, in particular when the age structure or composition of the work force is stable over time. The results of the benefits-paid method and the wage-share method are only similar when the wage-share is set at a level that excludes the effect of property income. This suggests that to the extent that available sources include a return to an actual or notional asset, the contribution rates derived would have to be adjusted. The need for adjusting contribution rates would raise practical issues that significantly complicate the transfer of contribution rates from private funded schemes and, to a lesser extent, from actuarial estimates for government unfunded social insurance schemes.

4. METHODS THAT COULD BE USED:

In addition to the two main methods to estimate D.122 already mentioned (benefits-paid and wage-share method) two specific variants may be identified for ease of exposition:

- A *benefits-paid method with a correction factor for pensions* can be derived from document CPNB 188 that was discussed by the GNP Committee in 1996 and which includes a proposal to determine a correction factor to be applied to pensions paid when estimating D.122.

¹⁶ The case discussed here refers only to the effect of increased life expectancy. The impact of the ‘baby-boom’ years on the age distribution of current employees would probably have to be taken into account.

- In addition, the *ideal* method that ESA and SNA would *in theory* prefer would be a *full actuarial estimate undertaken by national accountants*. This could be seen as a special case of the wage-share method where the wage-share is not derived from external sources but is calculated by the national accountants on the basis of their own actuarial models.

Their main characteristics of these four methods are summarised below.

A) (Pure) benefits-paid method. D.122 and D.612 are set equal to the unfunded benefits paid (less employees' contributions to the unfunded scheme if any). For government, the method is generally easy to apply. Data on unfunded benefits paid and on employees' contributions are available from the accounts of government units. For pensions, this method is acceptable as long as the ratio between the number of currently employed and the number receiving pensions is stable and normal and as long as there are no other major changes to the scheme. For voluntary benefits and for sick leave pay this method is the only sensible or correct method. Roughly half of the EU Member States predominantly use this method.

B) Benefits-paid method with correction factor for pensions. Document Nr. CPNB 186 presented to the GNP Committee in 1996 suggested a specific way to estimate a factor to be applied to *pensions paid by government to civil servants* so as to determine (the relevant part of) D.122 and D.612 from D.623. The factor proposed was the ratio between a 20 years average ratio and the current year ratio of the number of employees (na) to persons receiving pensions (np). D.122 related to pensions would then be determined by the pensions paid multiplied by the correction factor: $(\text{current na/np}) / (\text{average na/np})$. This method makes it possible to keep using benefits paid as the basis for estimating D.122 under circumstances where the (pure) benefits-paid method would produce weak results. Using a moving average can be seen as an extremely simple actuarial account. For each scheme, the pensions paid and long time series of the number of employees and pensioners are needed. Experience with applying this method suggests that it is most appropriate for shorter-term fluctuations in the labour force and stable entitlements to benefits. Only two EU Member States seem to use this method and both are planning to change to another method with their next revision.

C) Wage-share method. The value of D.122 and D.612 is estimated using a reasonable percentage of wages and salaries paid to current employees (D.11). The 'reasonable percentage' could be derived from actuarial estimates made elsewhere (ideally by some government department) or from the ratio of social contributions to wages and salaries of employees covered by another scheme. Depending on the source, there are several issues that should be taken into account when transferring wage-shares from actuarial estimates or from another scheme. These issues are discussed in detail below.

D) Full actuarial estimates made by national accountants. This method would mean to base estimates of D.122 and D.612 on the number of active employees (including former employees not yet retired that hold pension rights) by gender, age, marital status, salary level, etc. This would have to be combined with projections of the level of (future) benefits receivable, retirement age, mortality, rates of disability, withdrawal from service, future salary increases, inflation, etc. When such calculations are not already available from other parts of government, the workload for national accountants to run such models could be prohibitive because a huge amount of input data is needed and the estimates must be revised regularly. Many parameters could change rather quickly due to government policy (incl. number and composition of employees, gender and age distribution and the rules governing the level of future benefits receivable). In several EU countries the unfunded schemes differ significantly across government sub-sectors and across specific groups of government employees. Hence, several actuarial models would have to be set up and maintained.

Conclusions on the methods:

- The standard *benefits-paid method* is simple to use. The method produces good results in stable conditions (stable entitlements to benefits, labour force, etc.). It is the correct method for some benefits that are related to current employees. It may also be the appropriate method for small groups of employees under an unfunded scheme. The method is not appropriate when for a large scheme significant changes in the labour force or the future benefits occur.
- The *benefits-paid method with a correction factor* produces more stable results in the face of changes in the labour force. There is a problem determining the ‘correct’ average. A moving average is not necessarily ideal and produces time lags in D.122, e.g. when the labour force is expanded or contracted over a long period of time. The method is not useful when changes to the scheme occur such as changes in the level of entitlements to benefits or the retirement age, or changes in the coverage of the scheme. The method may be difficult to use in countries where different parts of government use unfunded schemes with different characteristics.
- The *wage-share method* requires establishing appropriate wage-shares and information on the (relevant part of) wages and salaries of current employees. The wage-share method would be the method of choice, except in circumstances where it can be assumed that the benefits-paid method produces reliable results.
- *Full actuarial estimates made by national accountants* do not seem feasible. ESA and SNA do not suggest this method in practice.

Issues to be considered when determining wage-shares

The wage-share method requires determining an appropriate basis (the wages and salaries of the employees covered by the unfunded scheme) and appropriate wage-shares. Actuarial estimates made by government for its unfunded social insurance schemes would in principle be the best source. A wage-share could also be estimated from the contribution rates applied, or the ratio of social contributions, to wages and salaries of employees covered by a funded scheme. Ideally this funded scheme would cover a segment that is similar to the government work force in its composition and entitlements to benefits (for example a funded scheme for a group of government employees). If such sources are not available or are not representative of the government work force, rates derived from government social security schemes could be used.

Depending on the source, different adjustments to the observed ratio or rate may be needed to account for several factors such as:

- The basis for observed contribution rates could differ from the gross wages and salaries (D.11). For example, the pensionable pay for determining pension contributions could exclude income tax withheld by the employer, or include wages and salaries paid temporarily in the case of sickness or maternity.
- Observed rates taken from funded schemes may have to be adjusted upwards for property income (D.44) as for unfunded schemes there is no property income. The same may hold for government actuarial estimates if these estimates include a notional return on a notional asset. (This is a complex issue that was addressed in section 3.)
- Rates derived from private funded schemes may also need to be adjusted for the service charge.

- Government social security schemes are themselves not based on actuarial considerations but are often pay-as-you-go and part-funded by taxes. An adjustment may be needed e.g. for the part that is tax funded.
- A particular issue may be the types of social benefits (health, unemployment, accidents, pensions) covered by the unfunded social insurance scheme and whether the scheme applies to all government employees or not. Several countries run mixed insurance systems for government employees with a part of the government employees fully covered by a government social security scheme and another part (e.g., only officials, or only teachers or the military) covered by an unfunded social insurance scheme. For the latter group of employees, some social protection functions (such as health or accidents) may be insured via the government social security scheme whereas other benefits (such as pensions) are covered by the unfunded social insurance scheme. Insurance against unemployment may be very low or may not exist for some groups of government employees (e.g. officials may have a de facto job guarantee). It would be necessary to find detailed data for the groups of employees and the types of benefits of interest – e.g. health and pension insurance of officials – and adjust observed rates for any differences in the benefits covered.
- The levels of (future) benefits may also differ. There may be differences in the profile of income over the lifetime of employees. For example, in some countries the profile of income from salaries and pensions over the lifetime of civil servants (incl. successors receiving pensions) differs quite a lot from the profile of private sector employees. Typically, young civil servants' salaries are lower than in the private sector, but keep increasing over the whole active period, and pensions are a higher share of final pay, with a break-even point somewhere in the 40s of the government employees. In such circumstances the D.11 which is the basis for the D.122 estimate could itself be sensitive to the age composition and the wage-share may need to be adjusted (usually upwards) to take account of differences in the income profile and in pension levels as a share of final pay.
- The composition of the labour forces under the source scheme and the unfunded social insurance scheme may differ in terms of e.g. age and gender composition, or salary levels of the work force. This could result in different levels of benefits payable (if benefits paid depend on salary levels), different average life expectancies (e.g. due to gender) and levels of unfunded benefits payable to current employees (e.g., health benefits may be sensitive to age). There is some evidence that the age and gender structure of government employees has changed significantly in the past decade. Adjusting for such differences could be difficult in practice.

Conclusions on the wage-share:

It appears that the ideal source for the wage-share would in principle be actuarial estimates specifically made for the government employees covered by the unfunded scheme. An adjustment for property income will typically be needed in this case (for detail see section 4). Deriving a wage-share from a funded scheme may, in principle, be another option. However, there could be substantial difficulties due to many adjustments that may need to be made when transferring the wage-share. The adjustments in turn could require a lot of data and a detailed understanding of the actuarial methods and assumptions underlying the contribution rates of the private funded schemes. When government operates a funded scheme for some groups of its employees, this approach may be more feasible. When actuarial estimates for government unfunded social insurance schemes are not available, a simple option is to derive a wage-share from the government social insurance scheme (taking both the employers' and the employees' rates as appropriate).

A specific issue is the direct use of data on notional employers' contributions shown in the accounts of government. These are typically amounts that are not paid to a social security institution or to a pension fund but 'returned' to the Ministry of Finance. These notional contributions may be set with political objectives in mind and not necessarily at a level that is correct from a national accounts perspective of estimating D.122. In addition, these notional contributions may have a very real economic impact and influence the behaviour of individual Ministries so that they could be treated as D.121 rather than D.122.

5. METHODS CURRENTLY USED IN MEMBER STATES

This section describes the methods used by Member States and the key features of the employers' unfunded schemes. See annex for figures showing for each Member State the development over time of the share of government D.122/D.612 in D.1. Many governments have two categories of employees: officials and other employees. Often the social insurance arrangements for these two categories are different.

Belgium

Uses the *benefits-paid method*. These benefits concern government officials' *pensions and family allowances*. Public administrative staff not having the status of officials are insured in the private sector. These imputed social security contributions are currently estimated as being equal to actual social security benefits (less employees' social security contributions). For government, the sources are the final accounts. The continued payment of wages and salaries in the event of sickness or maternity cannot be separated and is included in D.11.

Denmark

D.122 for government is estimated based on the *benefits-paid method with correction factor*. D.122 only concerns the pensions of the government officials ("tjenestemænd"). The system has been very stable in the past. Recent policy changes have resulted in the number of officials to decrease so that there are plans to adapt the method.

The central government has introduced employers' contribution of 15% of the gross salary of the officials that are paid to the Ministry of Finance. While these payment are 'notional' in the sense that the budgets of ministries have been raised by the amount of the contributions to be paid, the economic effect is that for a ministry the officials become more expensive than other government employees and that there is an incentive to reduce the number of officials. These notional contributions are probably not based on detailed actuarial calculations and are so far not used in the national accounts. Statistics Denmark plans to investigate how exactly the contribution rates were determined with a view to perhaps use this information in future.

Germany

In German national accounts mainly the wage-share method is used for non-market producers. Only about 5% of total government D.122 is estimated based on the benefits-paid method. For central, state and local governments a *wage-share method* is used: to the pension rate of the general social security scheme 7 percentage points are added and this rate is applied to the wages and salaries of active government officials. The full pension rate is used (i.e. the employers' and the employees' rates taken together). This rate was 19.1% in 2001 (declining from 20.3 in 1997 and 1998). The 7 percentage points top-up mainly serves to cover the health insurance of pensioners, special cover for permanent care (Pflegeversicherung) and an allowance for a pension top-up for non-officials. As to health benefits the system for officials foresees a reimbursement of about 50% of health costs.

Social benefits paid to current employees (i.e. excluding pensions and health benefits to pensioners) are added (*benefits-paid method*). For NPISHs (church officials) the same wage-share is used. The officials now working for the German Railways are still government employees (with the unit classified under corporations). D.122 is estimated as for government (*wage-share method*). The officials now working for the German mail and telecom are covered by a special funded scheme to which government contributes a transfer. For the sub-sector social security funds (S.1314) the *benefits-paid method* is used (S.1314 represents about 5% of total government D.122). The Bundesbank provides data for the Bundesbank officials' pensions payments (*benefits-paid method*) – this unit is classified under financial corporations.

The main reasons for Germany to predominately use the wage-share method are (a) historically the effects of the 2nd world war (with many former officials that received pensions), (b) a major wave of making many government employees officials in the 70s and (c) a trend since the early 90s to reduce the number of officials. These effects would have resulted in the benefits-paid method producing weak estimates. The sub-sector social security funds is not affected by such biases: the ratio between active employees and pensioners seems to be reasonably stable so that the benefits-paid method is considered reliable for this small sub-sector.

Greece

For central government the benefits-paid method is used. This flow refers to *pensions*. According to New Cronos, D.122 occurs nearly exclusively for central government (97% of the total).

Spain

For former government officials, the government pays benefits related to *pensions* (incl. survivors' pensions), disability and death. Imputed social contributions are estimated to be an amount equal to the value of the benefits paid minus the social contributions paid by the employees (benefits-paid method). The share of D.122 in D.1 for central government increased significantly in the late 90s. One reason was the re-classification of government units from the central to the regional government.

France

The benefits-paid method is used. The dominant element of government D.122 is central government employees' pensions. There are also some small supplementary benefits included.

Ireland

Public sector pensions are largely unfunded and a special calculation is undertaken annually to assess the value of these schemes to existing employees. This calculation uses the results of an actuarial assessment of unfunded public sector pension schemes undertaken for the year 1997 (i.e. a wage-share type method). Since 1995 new Irish civil servants have been put into the standard social security scheme, so they are not in the unfunded government scheme any more.

Italy

For government units in section L of the NACE, imputed social contributions are calculated as the sum of the costs entered in the budget for social benefits granted to the body's own employees, former employees and their families (i.e. benefits-paid method). These are mainly pensions paid directly and not through a social security fund, various grants, family allowances and compensation for occupational accidents.

Until 1995 the pensions of central government officials were paid by the Treasury. No payments of social contributions were recorded in the budget (therefore they were imputed). Starting from 1996 all public administrations transfer social contributions to the INPDAP (National Institute for Social Security of workers of the Administration).

For non-market activities of NPISHs, imputed contributions were determined by applying to the level of pay the percentage rate in that branch as determined for the whole economy.

Luxembourg

The benefits-paid method is used. The main element of government D.122 is pensions for central government. The employees pay contributions equal to 8% of their gross salary (these contributions are deducted from the benefits paid). For central government, the share of D.122 in D.1 declined in the 90s. The main reason for this was that the employees' contribution rate was raised from 3% to 8% in steps of 1% per year and the pension system was changed (phased-in increase in retirement age, lower rate of increase for pensions paid). The re-classification of some units had also a small effect. Local government employees are not covered by an employer's unfunded scheme.

Netherlands

D.122 of government is quite significant (some 4.4 billion euro in 2001, 18% of D.1 in the case of central government). Only about 12% of government D.122 refers to pension payments for retired military personnel, some 24% refer to insurance against unemployment (wage share method), 18% to health insurance (wage-share method) and some 40% to the continued payment of wages and salaries in the case of sickness (estimate based on absentee rates). Some 7% are other types of social protection (benefits-paid method). For the military pension scheme, a *benefits-paid method with correction factor* has been used up to now. However, as the scheme is small and the method requires a lot of data, this will be changed to a pure benefits-paid method with the next revision.

Austria

The benefits-paid method is used. Benefits covered include the pensions and family allowances paid by federal and state governments and municipalities, less employees' contributions (only federal state). The sources are the final accounts of these governments.

Portugal

The benefits-paid method is used. The unfunded benefits are mainly health benefits of government employees. The government employees are covered by the general social security pension system.

Finland

Mainly refers to payment of pensions. The inventory is not quite clear as to the method used. It seems that initially the benefits-paid method was used but that since the early 1990s the wage-share method is used. In 1988, local government changed over to a funded pension insurance system. The central government continued to pay the pensions of comprehensive and upper secondary school teachers directly to local government. Imputed social contributions are obtained by multiplying the total wages and salaries of comprehensive and upper secondary school teachers by the imputed employment pension insurance percentage. In the accounts of local government, the imputed pension appropriations of such teachers have been entered under employers' imputed social contributions. Until 1997, all pension appropriations of comprehensive and upper secondary school teachers were imputed. Starting in 1998, the future pensions of such teachers also have been progressively funded. The share paid by local government is being raised each year. Consequently, imputed social contributions have gradually declined since 1998.

Sweden

The imputed pension contributions for departments and agencies of central and local government and for State corporations and public service activities are obtained as the difference between contributions actually paid and calculated contributions (i.e. wage-share method). The calculated contribution rates for Swedish government employees are kept in line with other funded schemes operated for the Swedish public sector.

UK

According to the inventory, total economy D.122 for 1995 was 9.5 billion pounds. Of this, roughly:

- 5 bn was redundancy and sick and maternity pay. The method is *benefits-paid*. Some 750 million of this falls on government (Eurostat estimate).
- 1.4 bn were pension top-up payments from central government to local governments' retired teachers (the base pension is a funded scheme, only the top-up is unfunded). The method is *benefits-paid*.
- 0.9 bn were unfunded pensions to former local government police and firemen. Method is *benefits-paid*.
- 2.2 bn was central government pensions (civil servants and army). The method is based on *assessed superannuation liability contributions* (ASLCs) paid which is a kind of *wage-share method*. The ASLCs are *notionally* included in the accounts of central government departments (as payments to the Treasury) so that there is a direct data source for the imputed contributions. The ASLCs are established based on actuarial estimates and include a social component (lower rates for low salary earners, higher rates for high salary earners). Benefits include pensions, survivors' pensions, death benefits and invalidity. Employees pay 1.5% to cover survivors' pensions.

For central government, the share of D.122 in D.1 increased significantly in the 90s. The main reason for this was the re-classification of units that were not covered by the unfunded employer's scheme (such as hospitals) so that D.1 (but not D.122) was falling.

6. SUMMARY CONCLUSIONS

Eurostat's detailed review of the Member States' methods and sources for estimating government D.122 confirmed that the estimates are acceptable. There is no *immediate* need for changing the methods used in Member States.

Several Member States have recently implemented, or are about to implement, changes to the unfunded pension schemes for government employees. A gradual change in the number of employees covered by an employer's unfunded scheme or changes to the pension age and to the future benefits receivable will often need several years to produce an impact on the quality of D.122 estimates. Member States should closely monitor employers' unfunded pension schemes for government employees and should review their methods at the occasion of the next major revision.