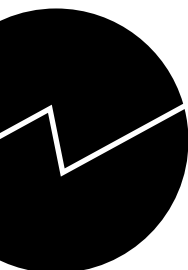


Statistics Norway



*Jan Byfuglien*

Documents

**Comparability of income data**  
Project report

## Preface

This project, cofunded by Eurostat (contract No 9363002/99), was initiated in order to support development work on harmonisation of social statistics at the European level and should especially focus on the possibility to use national sources on income and related topics. Thus the work has been closely related to the efforts to develop a replacement for the present European Community Household Panel (ECHP), and hopefully the results of the project can provide an input into that process.

Based on the EEA co-operation in general, and in the field of statistics in special, Statistics Norway has had the possibility to conclude co-financing projects with the Commission/Eurostat. This project was developed on this basis. However, it was considered essential to include experiences and examples from different countries, and subcontracting partners have been:

- Statistics Denmark
- Statistics Finland
- INSEE, France
- Statistics Netherlands
- Statistics Sweden
- Office of National Statistics, UK

The following persons contributing to the project can be mentioned: Mr. Jørgen Jørgensen (Denmark), Ms. Irmelii Penttilä and Mr. Veli-Matti Törmälehto (Finland), Ms. Breuil Pascale (France), Mr. Paul van der Laan, Mr. Branislav Mikulic and Mr. Hans de Kleijn (Netherlands), Mr. Uno Davidsson and Mr. Per-Olof Fredriksson (Sweden), Mr. Tim Harris, Ms. Caroline Lakin and Ms. Rosalyn Harper (UK), Ms. Lene Mejer (Eurostat), Mr. Arne Andersen and Mr. Jon Epland (Statistics Norway).

The data collected in the project refers to the years 1994 -1997. Unfortunately it has not been possible to get the same reference year for all countries. As the sources also in several cases have changed and improved one should be careful in interpreting the results as valid for the present situation in the countries. The focus in this report is more on general and methodological issues when using different national sources.

During the development of the project there has been extensive consultations with the project partners, who also have provided the data and the documentation, and not least commented on drafts. Valuable input from Eurostat has also been received, both in form of a ECHP dataset , by clarifying definitions and by commenting on issues. Without the active participation of all partners this project would not have been possible, and any results of value this project might contribute are the results of joint efforts.

Statistics Norway,

30 March 2000

Jan Byfuglien  
Project Manager

## Content

Executive summary.....	5
1. Introduction:.....	7
2. Conclusions and recommendations.....	8
2.1 Issues and findings.....	8
2.2 Some main conclusions.....	10
2.3 Country specific observations and conclusions.....	11
2.4 Some recommendations.....	14
3. Overview of the data.....	14
4. Definitions and documentation of the data.....	17
5. Total income and income components.....	20
5.1 Income components.....	20
5.2 Net income distribution.....	23
6. Income distribution and background variables.....	26
6.1 Age.....	26
6.2 Marital status.....	27
6.3 Status in employment.....	28
6.4 Main activity status.....	29
6.5 Economic activity.....	29
6.6 Occupation.....	30
6.7 Education.....	31
6.8 Tenure status of household.....	31
6.9 Household type.....	32
6.10 Household size.....	34
7. Regional income distribution.....	35
Literature.....	38
Annex 1 Documentation and comments concerning the data for each country.....	40
DENMARK.....	40
FINLAND.....	44
FRANCE.....	49
NETHERLANDS.....	49
NORWAY.....	54
SWEDEN.....	56
UNITED KINGDOM.....	58
Comments on the ECHP data.....	65
Annex 2 Some input on the quality declaration of national data.....	66
Annex 3 Income distribution and background variables.....	67
Recent publications in the series Documents.....	79

## Register of tables

Table 1. Income distribution (equivalised net disposable income). National sources .....	15
Table 2. Income distribution (equivalised net disposable income). ECHP .....	15
Table 3. Income distribution (equivalised gross income). National sources .....	15
Table 4. Main income components. National sources .....	16
Table 5. Availability of data on background variables. National sources.....	16
Table 6. The ratio between the top twenty and bottom twenty deciles (S80/S20). National sources and ECHP.....	23

## Register of figures

Fig. 1. Main income components. National sources .....	21
Fig. 2. Income components. National sources (gross) and ECHP (net).....	22
Fig. 3. Average net disposable equivalised income. PPS. National sources and ECHP.....	22
Fig. 4. Income distribution. Quintiles. National sources.....	23
Fig. 5. Income distribution. Denmark. National source and ECHP.....	24
Fig. 6. Income distribution. France. National source and ECHP.....	24
Fig. 7. Income distribution. Netherlands. National source and ECHP.....	25
Fig. 8. Income distribution. United Kingdom. Different alternatives.....	25
Fig. 9. The differences between gross and net income distribution. Quintiles .....	26
Fig. 10. Income distribution. Age group 65 +. National sources .....	26
Fig. 11. Income distribution. Age 65 +. Different national sources.....	27
Fig. 12. Income distribution. Widowed. National sources.....	27
Fig. 13. Income distribution. Widowed. Different sources.....	28
Fig. 14. Income distribution. Unemployed. National sources.....	28
Fig. 15. Income distribution. Unemployed. Different sources.....	28
Fig. 16. Income distribution. Retired persons. National sources .....	29
Fig. 17. Income distribution. Persons retired. Different sources.....	29
Fig. 18. Income distribution. Primary industries. National sources.....	30
Fig. 19. Income distribution. Primary industries. Different sources.....	30
Fig. 20. Income distribution. Professionals. Different sources .....	30
Fig. 21. Income distribution. Education on tertiary level. Different sources.....	31
Fig. 22. Income distribution. Tenure status= tenant. National sources.....	31
Fig. 23. Income distribution. Tenure status = tenant. Different sources.....	32
Fig. 24. Income distribution. Single parents with dependent children. National sources .....	32
Fig. 25. Income distribution. Denmark. Single parents with dependent children. National source and ECHP .....	33
Fig. 26. Income distribution. France. Single parents with dependent children.....	33
Fig. 27. Income distribution. Netherlands. Single parents with dependent children .....	33
Fig. 28. Income distribution.UK. Single parents with dependent children.....	34
Fig. 29. Average income. Single parents with dependent children. PPS .....	34
Fig. 30. Income distribution. 1 person households. National sources.....	35
Fig. 31. Income distribution. 1 person households. Different sources.....	35
Fig. 32. Income distribution. NUTS 2. Finland. 1995 .....	36
Fig. 33. Income distribution. NUTS 1. Netherlands .....	36
Fig. 34. Average income level. NUTS 2. Netherlands. PPS 1995 .....	36
Fig. 35. Income distribution. NUTS 2. Sweden.....	37

## Executive summary

The main objective of the project was to analyse the feasibility of using national sources in order to replace a substantial part of the content of the present European Community Household Panel (ECHP). The focus was on income and main income components as well as some main background variables related to income. The project has been linked to the work for developing a new survey instrument to replace the ECHP, and the objectives and tasks have been partly adapted to support this process.

The project was performed in co-operation between Denmark, Finland, France, Netherlands, Norway, Sweden and the United Kingdom (UK) with Norway as the lead country.

A preparatory project (report in January 2000) discussed the issues to be addressed and identified and presented the national sources to be further investigated.

An interim report (August 2000) further discussed more in detail the selection of variables for more in-depth study and the tables to be produced and the national sources to be utilised.

Some of the major issues that have been addressed are:

- How is it possible to assess the degree of consistency and comparability when using national data for studying income distribution and aspects related to poverty and social exclusion?
- What are the critical factors affecting comparability?
- What are necessary prerequisites when using data from diverse national sources in comparable studies related to income distribution?

The project had a pragmatic strategy by:

- Collecting some concrete data, as well as relevant documentation
- Assessing the data and especially aspects related to comparability, by comparing the figures and evaluating definitions and descriptions

The process has been highly interactive and in some cases there were several rounds as the first figures for some countries looked unlikely and had to be corrected. Given that there is rather extensive information in the national sources, which is the case in several of the participating countries, this *ex-post harmonisation* at micro-level proved feasible. The adaptations were made partly by removing/adjusting income components (for instance Sweden) or adjusting the household definitions (partly Denmark).

The main observations and conclusions of the project are:

- As also documented by many previous studies (see Literature): It is a challenging task to compare income levels and income distribution between countries, especially for specific subgroups. This is partly due to differences in taxation and transfer systems between countries, and the possibility to get enough relevant information on income components, and partly due to differences in social structures and delimitation of households, which can influence the figures to a large extent.
- National sources based on tax registers in combination with other registers on transfers can provide a rich source for detailed data on income components (see for instance figures from Denmark in Annex 1). These sources can often provide data more complete and of higher quality than data normally provided by personal interviews.

- Several countries (Denmark, Finland, Netherlands, Norway, Sweden) can also combine income data with other national sources based on registers/administrative information to provide data on several income-related background variables, even if the definitions/classifications and their practical implementation in several cases should be improved. Thus it is also possible to present relatively reliable figures broken down for subgroups of the population and for regional units.
- However, in no country administrative sources alone are sufficient for providing all necessary data for studying all specific aspects of poverty and social exclusion. A linked survey can also be necessary to verify the household composition, to identify non taxable income or to disaggregate sources of income.
- The operational and practical definition and delimitation of the household unit is a critical factor, affecting comparability of data both for the overall income distribution and especially, the break down of income figures to subgroups of the population. The effects of this factor can in some cases be more important than missing income components.
- Specifications for collecting national data should be very clear. Thus specifications should be tested and refined to avoid misinterpretation.
- Active control and testing of data compiled from different national sources is necessary, partly by technical consistency checks, but also by tabulating the data and analysing the results.
- A report format for documentation/quality declaration should be developed, and a draft has been produced as part of this project.

The countries participating in the project differ in their possibilities for using micro-data from national sources as a basis for the future input to the follow up of the ECHP (EU-SILC). Apparently Denmark, Finland, Norway and Sweden will be in a position to adapt existing national sources to provide input to EU-SILC. The Netherlands could in principle use micro-data from the best national sources as a base for the input to the new statistical instrument EU-SILC, but is for the moment restricted by national legislation on tax micro-data. On the other hand France and the UK will have to develop surveys (possibly by adapting existing surveys) based on the common specifications for the EU-SILC.

## 1. Introduction:

The project had the following specified objectives:

*This project will aim at analysing the feasibility of output harmonisation of some variables as presently found in the ECHP by using national sources, including administrative registers, on income and some aspects of living conditions. The long term perspective would be the use of national sources, particularly on income and its components, to replace a substantial part of variables from the ECHP based on an output harmonised approach. This is in order to reduce the input harmonised part of statistics on living conditions to a minimum which is consistent with the policies of the EU.*

The following tasks were further foreseen:

*1) Use the most recent recommendations on definitions and concepts of income and living conditions as prepared by Eurostat for setting up the methodological framework. E.g. the project should build on the inventory of data sources on income and the information available on recommended definitions and concepts for different variables.*

*2) Use the present ECHP questionnaire for defining in detail all the variables which should be covered. The aim will be to set up a list of variables with their definitions, which corresponds to the content of general living condition surveys as carried out at national level. By taking the ECHP as starting point, it is assured that EU policy goals are kept in focus.*

*3) Use the defined list of variables for making comparisons of data from relevant sources for the countries included in the project. The source(s) to be used should be the main source(s) on income and living condition statistics. That would imply the use of administrative registers in combination with survey results for the countries participating. Analysis on the feasibility of obtaining cross-sectional and longitudinal variables at micro-level (data linked at the individual and/or household level), particularly for income, should be included.*

*4) Detailed overview over how the defined variables can be identified in the relevant sources, what quality the information has and which possible modifications should be done to achieve the harmonised output (following the common definitions and concepts). Documentation of degree of harmonisation envisaged. For this purpose a checklist on the information available in the ECHP is included as annex.*

*5) Recommendations on variables that could function as an output harmonised source replacing those in the present ECHP for the countries participating in the project. These recommendations should be based on a quality evaluation of such variables according to the guidelines developed by Eurostat and are expected to include descriptive statistics showing how the analysed micro-data can provide comparable statistics (detailed tables). The recommendations should take into account a sample size which is big enough to allow analysis at regional level (NUTS2) and the inclusion of panel components measuring changes over time.*

In a preparatory project (Planning of a project on comparison of income data from different sources. Contract No 8364019 - Final report 29 January 2000) several issues and tasks were further discussed. The report from that preparatory phase also summarised some first results on available national sources within the seven countries participating in the project (Denmark, Finland, France, Netherlands, Norway, Sweden and United Kingdom).

An interim report of 10 August 2000 further discussed the selection of variables for further studies, as well as describing the available national sources and the foreseen tabulations.

It should be noted that the framework and focus of the project has shifted somewhat during the process as other work related to the future of the ECHP has progressed. This project has adapted to this situation trying to provide useful input to this process, for instance by taking account of a request to focus in detail on sources that could be linked at micro-level.

The countries were expected to use the best national source covering as much of the table input as possible. However, in some cases several alternatives were calculated based on different sources or using different assumptions. This will be commented on for each country.

The objective of this report is to summarise the findings, with a specific view to provide an input to the further process of designing a new survey replacing the present ECHP.

A lot of detailed information was collected for this project and this has resulted in a wealth of income data. We have had to focus on selective aspects of the data for the purposes of this project. However, it would be possible to utilise the material for further analysis.

## **2. Conclusions and recommendations**

### **2.1 Issues and findings**

The focus of this study has been on investigating the use of available national sources in order to assess the feasibility for utilising these sources for comparative studies of aspects related to income distribution and factors affecting income distribution. Thus the sources investigated should contain as much information as possible on these aspects - linkable at the micro level.

Some of the issues to be studied were the following:

- What income data are linked to important background data in order to make it possible to study variations in income distributions across different subgroups?
- What is the degree of comparability of such income data from existing national sources compared to other countries and available ECHP figures?
- What issues related to quality and documentation can be identified?
- What adjustment might have to be made in national sources to improve comparability and approach a solution based on output harmonisation?

Even if the focus is not on a detailed study on the income component, this has been done in previous studies, for instance de Wreede, W.J. (1999), it is still necessary to understand how the main income figure; which in this study should be net disposable income, is constructed. Some information on the components of the main income aggregates has therefore been collected.

The project has verified that it is necessary to have very clear specifications for the data to be delivered when trying to collect and harmonise data from national sources. Even if specifications can appear clear, it is necessary to put in place detailed control procedures to check and verify the data. Simple compilation and analysis of the main figures may give rise to questions, which can lead to adjustments.

It has also documented the need for structured documentation (metadata) - which is not always readily available in a common format or language. One of the deliverables of this project has thus been some input on specifications for metadata and quality assessment when provided by national sources based on combined administrative data/surveys.

The project has also shown that it is necessary to evaluate closely what the major issues are affecting international comparability of data related to income and welfare. Minor differences



in the income components can for instance have a limited effect when comparing income distributions, while differences in the way households are defined and delimited in practise can have major importance, both for income distribution using equivalence scales and for the income distribution of specific subgroups. Differences in definition and classification of background variables can also in some case have major effects.

It is further observed that there are difficulties in acquiring a fully complete and comparable measurement of (real) disposable income - even between countries participating in this project, due to differences in taxation and social transfer systems and to differences in social and household/family structures. Both administrative sources and surveys are considered to have their benefits and flaws as measurement instruments. However, in relation to the study of income level and income distribution, experiences from this project indicate that national data based on a combination of administrative sources (tax data combined with administrative sources on transfers) in most cases will have higher reliability than sample surveys based on questionnaires. On the other hand, administrative sources may have difficulties in mapping a relevant household unit and can lack important background variables.

Several countries have national sources for income statistics, relying on administrative sources (mainly tax sources), and considered to provide a more reliable source for detailed income analysis, also for small groups and at regional level, than survey data. The main issue is the possibility to enrich these sources with additional information, both on relevant background variables and on more specific variables to map and understand the issues related to poverty and deprivation.

In the Nordic situation (Norway, Sweden, Denmark, Finland) there is in general a possibility to combine tax data with other data from administrative sources related to income and transfers on micro level, and to combine these data with data from surveys. In Norway, Sweden, and Finland the national source has a survey component allowing greater flexibility for adding on specific items and also adjusting the household definition. Denmark has for the moment a pure register solution.

France and the Netherlands also use national sources for income studies relying on tax data. In the case of France tax data are combined with information from the Labour Force Survey, but as it is not possible to extend this source or transmit data on micro level, this is not considered as an option for the future replacement of the ECHP. In the Netherlands the Income Panel Survey also is based on fiscal information combined with some background information. For the moment there are several variables missing in relation to the needs of the future ECHP, and there has also been some uncertainty about the possibility to deliver data at micro-level to Eurostat.

In one country (UK) tax data are considered not to provide a useful input for two reasons: One is that access to the data is not possible legally and also that a higher proportion of people do not pay tax or are taxed on their earned income at source (through the employer or savings institution) and therefore are not covered by the data.

It is documented that for countries able to utilise fiscal information there is a rich source for detailed income analysis (Finland, Sweden, Netherlands). See also the description of the sources in the Annex.

The project intended to assess the data and especially the comparability by:

- Comparing and evaluating the figures
- Comparing definitions and descriptions

## 2.2 Some main conclusions

The intention was to compare national data with ECHP data, where available. However, for some countries (Norway, Sweden, Finland) the national sources cannot be compared with the ECHP data for the same country. The possibility to assess comparability in these countries is therefore more limited, and the comparisons will be mainly based on assessing documentation and comparing with other countries.

The sources investigated in Finland, Netherlands, Norway, Sweden and UK include all panel components, see also the Interim report, where some of these panels are described more in detail. The final study has concentrated on cross-sectional data, partly because the focus of the EU-SILC has shifted to cross-sectional data, partly because a further study and use of the panels would go beyond this project.

It is observed that a combined national source utilising administrative and survey data will normally have the following benefits:

- In sample surveys combining register and interview data there is no item non-response, but unit non-response can be a serious problem. Even if methods are available to use register information to impute unit-non-response, this option can be difficult to adapt and give some comparability problems.
- In a pure register based solution there is no item non-response nor unit non-response, if the registers covers the whole population under study. In addition there is no sampling variation, if possible to use the whole register in calculations. Thus it is possible to give detailed breakdown by different subgroups.
- Combination of administrative sources and samples gives an improved basis for checking and weighting also sample data.
- Data used for administrative purposes should normally be well controlled and have high accuracy.
- Fast production of (some) results at a low cost, even if the utilisation of administrative sources in some case can be quite time consuming.
- The main income items based on tax information combined with other information on transfers are considered normally to give a better basis for assessing disposable income, than pure survey data - even if the data still can deviate from an ideal definition.

On the other hand some of the main problems are:

- Concepts and definitions of observation units and variables do not fit 100 per cent agreed international concepts and definitions.
- Production time can in reality be quite prolonged as control and validation can take long time (for instance tax data).
- Changes in tax systems and other administrative solutions sometimes creates break in time-series or cause other difficulties as the statistical requirements are not generally the highest priority for administrative authorities.

The main conclusions of this project can be summarised as:

- After a process of validation and correction it is considered that there is an acceptable degree of comparability of the data on the overall income distribution as well as on the main income components.
- There are still some uncertainties about the comparability of the income level/distribution for specific subgroups - partly due to differences in delimitation and handling of household units, partly due to differences in definitions or implementation of definitions. The process of linking income of persons in the household to background variables (all persons/person with main income/reference person) can also provide some problems with

comparability. Some specific subgroups illustrated in section 6 are for instance: elderly 65+, widowed, unemployed, retired persons and single parents with dependent children.

## **2.3 Country specific observations and conclusions**

### **Denmark**

The national data from Denmark are fully based on register information and the following points can be summarised:

- The national source can provide a good coverage of income components, with assumed high quality (see description in Annex 1).
- The consistency between the national source and the ECHP concerning the overall income distribution is fairly good, except in the lowest and the highest decile. Reasons for these differences can partly be differences between the national source and the ECHP in handling negative income and income from self-employment and differences in the household definitions (old age pensioners in institutions included in national source).
- Most of the included background variables are also well covered, and for several variables the consistency with ECHP data is fairly good. There is some need to check and improve some classifications, for instance on 'Labour status', 'Main activity status' and 'Economic activity' (see specific comments).
- The main issue is the household definition and its implementation: This is based on the dwelling concept based on register information, and does not differentiate (in the form used here) between private households and households in institutions. For a major part of the households this may in practise not differ too much from the 'ECHP definition'. However, for some groups there will be some differences of importance. Some further work is necessary to clarify the implications of this household concept and make adjustments.

### **Finland**

The data sources is the annual Income Distribution Survey, which is a sample survey based on data both from interviews and administrative registers.

Some conclusions are:

- The income data, derived mainly from administrative sources, are quite comprehensive and considered to be of high quality. Several adaptations are possible and were made in the context of this project in order to improve comparability with data from other countries.
- All the selected background variables, except country of birth, are present and providing the information asked for.
- The household concept is in line with common 'ECHP' concept.

### **France**

The national source is the Fiscal Income Survey (FIS) linking tax returns with data from the Labour Force survey.

The main differences between the ECHP and the FIS are:

- Differences in reference year for income: ECHP96 - income of year 1995  
FIS 96 - income of year 1996

- Property income: the most part of it is net income taxable (taxed at source), and is therefore not available in FIS. In FIS income can also be reduced thanks to deductions.
- Self employment income is more important in ECHP than in the FIS because self employed with limited income can declare lump sums to the fiscal administrations.
- The average income of the first quintile is higher in the FIS than in the ECHP, perhaps because very few of the population with small incomes fill in tax returns, and perhaps also because of the imputation process: social benefits are imputed (in the FIS), and are given primarily to people at the bottom of the distribution, while some of them may not in reality receive them (non-take up..).
- There is more 'noise' in the ECHP figures than in the FIS ones, which causes a more unequal income distribution.

However, the Fiscal Income Survey cannot be used as a basis for input to EU-SILC:

- It is impossible to add questions on social exclusion in the LFS.
- The LFS will change from a survey once a year to a survey during the whole year
- Fiscal data can be quite difficult to disseminate.
- Timeliness is also a problem: in the long term it is assumed to be possible to publish income of year n (based on FIS) at the end of the year n+2.

## Netherlands

Some of the findings on the best national source can be summarised in the following way:

- The information on income components from (the best) national source (IPO) allows us to calculate 'net disposable income', the income concept which has been used in ECHP<sup>1</sup>.
- The data on net disposable income from the (best national) source are found to be comparable with that from Dutch edition of ECHP. Slight differences found can be almost entirely explained by measurement errors and limitations in sample size in the ECHP (IPO doesn't suffer from these problems since it uses administrative data on income).
- The income data from national source are comparable internationally providing the ECHP income concept (net disposable income) is commonly used.
- Despite of good comparability of income data, the best national source has a disadvantage relative to ECHP: the number of background variables is very small and mostly limited to demographic ones. This makes the source not very much suitable for identification of groups of special interest (poor, homeless, labour market excluded, disabled, etc) and for analysis of complex and multidimensional phenomena (e.g. social exclusion, life situation, etc.).
- Transfer of micro-data from the best national sources remains an issue. At this moment Statistics Netherlands is not allowed to transfer the micro-material to third parties. The reason is that the income data originates from tax administration and are subject to very strict confidentiality regulation.

---

- <sup>1</sup> There are some slight differences at the component level since IPO misses two posts of private income: parental financial support received by children studying away from parents home and alimony for children received from ex-partner. However, the average amount of missing components is not large comparing to average net disposable household income.

## Norway

Data are partly based on the Income Distribution Survey and the Survey on Living Conditions, which are linkable. The surveys are based on a combination of administrative data and a sample survey. The income part is based on a combination of several administrative sources and is the reference source for income in Norway. The Survey on Living Conditions has a cross-sectional and panel component.

Some main observations are:

- The national source appear to cover rather well the main income components.
- The household concept, established on the basis of an interview is consistent with the 'ECHP' concept, with an exception for non-responding households where the family concept from the register is implemented.
- Some of the background variables were missing, but the source has been improving over the last years.
- The sampled units are persons.
- The source should, with minor adjustments, be able to supply data to the future EU-SILC, both on the cross-sectional and the longitudinal part.

## Sweden

Swedish data are based on the annual survey on living conditions (ULF), based on a combination of administrative sources and interviews.

Some main observations are:

- The coverage of income components is fairly extensive, and there are several possibilities for adjustments (that were actually made).
- There is a problem concerning the consistency with the general definition of households as for instance children 16-24 years had to be left out. Else they would have been counted as separate households. Work is going on to adapt the household definition. It is observed that the effect of this will be that the average income of households will increase and that the income differences will decrease (Jansson (2000)).
- The source covers background variables, except for occupation.
- The source can also provide regional data.

## United Kingdom

The UK tables have been produced for the following surveys:

General Household Survey (GHS)

British Household Panel Survey (BHPS)

Family Resources Survey (FRS).

For further details see Annex 1. Overall, the Family Resources Survey is considered to be the best national source for income data. It is a dedicated income survey and asks exhaustive questions about all possible sources of income and seeks to record an exact amount from each source. Further it has a larger sample (target 25,000 households as against 9,700 in the GHS and around 5,000 in the BHPS). However, it does not cover other information on living conditions in as much detail as the BHPS and GHS. The latter covers a much wider variety of non-income related items (e.g. GHS has detailed health related data, number of visits to General Practitioner, etc.). The FRS and the GHS are cross-sectional surveys, whereas the BHPS is a longitudinal survey. It remains to be decided what will be the final option for supplying data to the future EU-SILC.

## 2.4 Some recommendations

The work on the project has highlighted several issues related to the harmonisation of national sources in those countries intending to use national sources as an input to the future instrument replacing the ECHP. These issues are mainly related to the definition of the household unit and to the handling of the different income components (e.g. capital gains, interests received). It is recommended that the following issues are reconsidered in the further preparation of a new survey (EU-SILC), especially for those countries intending to use existing national sources:

1. The general and operational definition of households: this definition should be very clear, clarifying the handling of specific groups, such as students and elderly living in semi-institutional situations. The effects of any deviations from the definition should be evaluated as part of the evaluation/documentation report (see point 4).
2. The handling of some income components should still be clarified. Some of these are already available in some national sources, and there were made several adaptations in connection with the project:
  - The handling of capital gain/interests received-paid (see for instance the description of data from Norway and Sweden, illustrating that this items have growing importance)
  - The handling of imputed rent (see examples from Denmark, Finland and Sweden). The figures available for this item varies between 2 (DK) and 14 percent (Sweden) of gross income. The inclusion or not of this item can have some effects on income distribution for specific subgroups (for instance single parents).
  - The handling of income in kind - partly included in 'compensation for employees' (Norway) (see figures for Denmark, Finland and Sweden), excluded (Netherlands) or confirming that his item has minor overall importance - less than 1 per cent of gross income - even if it might have importance for some groups of the population)
  - The handling of self-employment income: Figures are available for all countries, differing from 2,5 (Sweden) to 9 per cent (UK) of gross income. However, some further clarification of the quality of these figures appears to be necessary.
  - The handling of unemployment benefits: In the case of France for instance, these are included in 'compensation for employees'.
3. Standard documentation and quality descriptions should be developed (see Annex 2 for an input to this description). These should benefit from the general work on quality declarations and metadata, and also draw on the experiences from the work on 'Robustness assessment reports for income distribution data'.

## 3. Overview of the data

The variables selected were limited to some main income components and some income related background variables.

The first table should give the net disposable income by income deciles, and the following table summarises the results (to be discussed in detail later):

**Table 1. Income distribution (equivalised net disposable income). National sources**

	DK 94	DK 95	Fi 95	Fr96	NL94	NL95	No 94	No 95	Sw96	Sw 97	UK 94 (FRS)	UK 95 (FRS)
I Lowest	3,0	3,2	4,7	3,7	3,4	3,7	3,8	4,0	2,5	2,1	3,2	3,3
II	5,9	5,9	6,4	5,4	5,9	5,9	5,9	6,0	5,7	5,6	4,7	4,8
III	7,0	7,0	7,3	6,4	6,8	6,8	7,1	7,1	6,9	6,8	5,6	5,7
IV	8,0	8,0	8,1	7,4	7,7	7,7	8,0	8,1	8,1	7,9	6,6	6,7
V	9,0	8,9	8,9	8,3	8,6	8,6	9,0	9,0	9,1	9,0	7,7	7,8
VI	9,8	9,8	9,7	9,3	9,7	9,7	9,8	9,8	10,1	10,0	9,0	9,0
VII	10,8	10,7	10,6	10,5	10,9	10,8	10,7	10,7	11,2	11,1	10,5	10,3
VIII	11,9	11,9	11,7	12,0	12,3	12,3	11,9	11,7	12,6	12,5	12,3	12,1
IX	13,6	13,5	13,4	14,4	14,4	14,3	13,4	13,3	14,4	14,5	14,9	14,9
X	21,1	21,1	19,1	22,4	20,2	20,3	20,4	20,2	19,5	20,6	25,4	25,6
All persons	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

The same data was made available from Eurostat extracted from the ECHP covering Denmark, France, Netherlands and UK:

**Table 2. Income distribution (equivalised net disposable income). ECHP**

Deciles	DK94	DK95	DK96	F 94	F 95	F 96	NL94	NL95	NL96	UK94	UK95	UK96
I Lowest	4,3	4,2	4,0	2,8	3,4	3,3	3,4	3,2	3,1	2,6	3,0	2,9
II	6,1	6,2	6,1	4,8	5,2	5,2	5,6	5,6	5,5	4,3	4,6	4,5
III	7,1	7,3	7,3	5,8	6,2	6,3	6,5	6,5	6,4	5,4	5,7	5,5
IV	7,9	8,1	8,2	6,8	7,2	7,3	7,4	7,3	7,2	6,6	6,7	6,6
V	8,6	8,9	9,0	7,9	8,2	8,3	8,3	8,2	8,1	7,8	7,9	7,7
VI	9,4	9,6	9,8	9,0	9,3	9,4	9,3	9,3	9,1	9,1	9,2	9,0
VII	10,2	10,4	10,7	10,2	10,6	10,6	10,5	10,5	10,4	10,6	10,8	10,5
VIII	11,4	11,5	11,8	11,9	12,2	12,2	12,3	12,1	12,1	12,5	12,5	12,4
IX	13,1	13,2	13,5	14,6	14,6	14,6	14,6	14,5	14,5	15,3	15,2	15,3
X	21,9	20,4	19,7	26,2	22,9	22,8	22,0	22,9	23,7	25,8	24,3	25,5
All persons	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

The income distribution is also given based on gross income to be able to assess the effects of the different tax systems:

**Table 3. Income distribution (equivalised gross income). National sources**

	DK 94	DK 95	Fi 95	Fr 96	NL 94	NL 95	No 94	No 95	Sw 96	Sw 97	UK94 (FRS)	UK95 (FRS)
I Lowest	3,2	3,4	3,8	3,4	3,0	3,1	3,1	3,2	2,9	2,7	2,6	2,8
II	5,2	5,2	5,4	5,0	5,0	5,0	5,1	5,2	5,0	4,9	4,0	4,0
III	6,4	6,4	6,5	6,0	6,1	6,1	6,4	6,5	6,5	6,3	4,8	4,8
IV	7,7	7,6	7,5	6,9	7,2	7,2	7,6	7,7	7,7	7,5	5,9	5,9
V	8,8	8,7	8,4	7,9	8,3	8,3	8,7	8,8	8,8	8,6	7,2	7,2
VI	9,8	9,7	9,4	9,0	9,5	9,4	9,7	9,7	9,8	9,6	8,8	8,7
VII	10,9	10,8	10,6	10,3	10,8	10,8	10,8	10,8	11,0	10,8	10,4	10,3
VIII	12,2	12,1	12,1	12,0	12,5	12,5	12,2	12,1	12,4	12,4	12,5	12,4
IX	14,1	14,1	14,3	14,7	15,0	15,0	14,1	14,1	14,5	14,5	15,7	15,6
X	21,7	21,9	21,9	24,8	22,5	22,7	22,3	22,0	21,3	22,5	27,9	28,3
All persons	100	100	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Further a table with the main income components was produced in order to be able to assess the degree of comparability of the net disposable income concept:

**Table 4. Main income components. National sources**

	DK 94	DK 95	Fi 95	Fr96	NL94	NL95	No 94	No 95	Sw96	Sw 97	UK 94 (FRS)	UK 95 (FRS)
1. Compensation of employees	64,4	64,9	56,5	61,3	64,9	65,1	64,0	64,3	60,8	62,3	64	63
1.3. Remuneration in kind	0,4	0,4	0,7						1,0	0,9		
2. Self-employment income	7,4	7,6	7,1	6,8	5,9	6,5	7,7	8,0	2,6	2,5	9	9
3.1+3.2 Home production and casual secondary activity			0,2						0,2	0,2		
4. Property income (- imputed rent)	3,2	3,2	3,0	3,4	3,0	3,0	5,4	5,4	4,0	4,4	5	5
4.8. Imputed rent	2,5	2,0	5,1						14,3	14,0		
5. Transfer income	25,0	24,3	33,2	28,5	26,2	25,4	22,9	22,3	32,3	30,6	22	24
5.1.1 Gross social insurance benefits	20,3	19,7	26,4	23,0	20,8	20,4	18,0	17,6	25,4	24,0		
5.1.1.2.1 Unemployment benefits	5,3	4,4	6,2				1,9	1,7	4,2	3,9	15	16
5.1.1.2.4 Pensions	10,3	10,5	15,3	23,0			16,1	15,8	19,3	18,4	5	6
5.1.2 Social assistance benefits	4,3	4,0	6,0	5,5	5,0	4,7	3,5	3,3	7,0	6,6	1	1
5.2 Private transfers received			0,7		0,3	0,3	0,5	0,5	0,0	0,0	1	1
Gross income	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100	100
6 Transfer payments	2,4	2,3	5,9	0,9	24,0	23,7	0,9	0,8	4,0	4,4	1	1
8. Taxes	33,9	34,0	22,9	10,5	10,7	10,1	23,8	24,3	28,5	29,8	21	22
Net disposable income	63,7	63,6	71,2	88,6	65,3	66,2	75,3	74,9	67,5	65,8	78	76

Please refer to section 4 for a description of some definitions and to annex 1 for the description of the national data.

Finally, the income distribution (quintiles) is given for specific background variables. The availability of data for the different countries is given in the following overview:

**Table 5. Availability of data on background variables. National sources**

	DK 94	DK 95	FI 95	Fr 96	NL 94	NL 95	No 94	No 95	Sw 96	Sw 97	UK94 (FRS)	UK95 (FRS)	UK 95 (BHPS)
Age	x	x	x	x	x	x	x	x	x	x	x	x	x
Marital status	x	x	x	x	x	x	x		x	x	x	x	x
Country of birth	x	x		x					x	x			
Labour status			x	x	x	x	x		x	x	x	x	x
Main activity status	x	x	x	x			x		x	x			x
Economic activity	x	x	x	x			x		x	x		x	
Occupation	x	x	x	x							x	x	x
Educational attainment	x	x	x	x			x		x	x			x
Tenure status of household	x	x	x	x	x	x	x		x	x	x	x	x
Household type (ECHP)	x	x	x	x	x	x	x	x	x	x	x	x	x
Household size	x	x	x	x	x	x	x	x	x	x	x	x	x
Regions			x		x	x			x	x			

The following data are incomplete:

Denmark: Labour status

Finland: Country of birth

Netherlands: Country of birth, Main activity status, Economic activity, Occupation, Educational attainment

Norway: Country of birth, Labour status, Occupation

Sweden: Occupation

UK (FRS): Country of birth, Labour status, Main activity status, Educational attainment

Eurostat provided ECHP data for the same variables as listed above for the years 1994-1996 for the countries: Denmark, France, Netherlands and UK.



#### 4. Definitions and documentation of the data

This section will summarise the definitions applied and some deviations from the definitions that might affect comparability. In Annex 1 more detailed comments concerning the different countries are given.

##### Reference years:

Ideally the reference years asked for were 1994 and 1995, partly to be able to compare with available ECHP figures. For several reasons this was not possible for some countries, and the situation thus is the following

	1994	1995	1996	1997
Denmark	X	X		
Finland		X		
France			X	
Netherlands	X	X		
Norway	X	X		
Sweden			X	X
UK	X	X		

Accordingly, there are limitations in the comparability concerning time reference, especially for France and Sweden. It should also be noted that the some sources have changed and possibly improved since these reference years.

ECHP data are available for all the years 1994-1996. It should be noted that the reference year for the ECHP data is N-1, meaning that the income refers to the years 1993-1995.

**The unit of analysis should be the person**, except when it is obvious that the household is the unit. Actually, the unit is person also in cases where the household is used as a classificatory variable, for instance household type; persons in households with two persons etc.

##### Deviations:

France: for household types, the household is the unit

##### **Definition of household units**

Ideally the household definitions should follow as closely as possible the one applied in the ECHP:

"Household consists of persons who live together and have their meals together or otherwise use their income together (income sharing) in private households. Persons living permanently in institutions (hospitals, prisons and so forth) are excluded.

People living in other location belong to the household if they participate in the acquisition of income. People conducting military service or equivalent belong to the household. Students living on their own or in other location do not belong to the household if they live mostly on their own income or on a student loan. Students (living together) in dormitories etc. each form their own household if they are not married or are not otherwise cohabiting."

##### Deviations from main concept:

##### Denmark:

Denmark implements a definition of families (D-families) based on register information, defined in the following way:

**A family (called a D-family)** consists of one or two adults (16 years +) either married or living in consensual union with their possible children. This general rule is limited in the sense that each D-family can only contain one couple. (see details of the definition in Annex 1 on Denmark).

Further families are grouped to **households** defined as:

All persons living in the same dwelling, except if there are more than 3 D-families in the dwelling. In that case the D-family is considered to be the household.

The more operational definition is:

1. All members of a household should live at the same address according to the dwelling register at the end of the year
2. If there are less than 4 D-families in the household this group of families constitutes the household
3. If there are more than 3 D-families in the household, each D-family is considered as the household
4. If there is only one person in the household and this person is either younger than 16 or not fully taxable, the household is excluded

It should be noted that this definition is based on the dwelling/address concept as implemented in a dwelling register. Points 2 and 3 in the definition will ensure that people living in institutions or in some other common arrangements will be split. The definition does not differentiate between private and other households. Thus families (also single persons) living in institutions will be included, having some effect on specific subgroups (see examples related to income distribution for those 65+). It is in principle possible to adjust the definition to cover only private households. However, there are living arrangements in the borderline between private and institutional households that should be evaluated.

France:

Households whose reference person is a student or in military service have been excluded, as well as households whose income is negative.

Norway:

The definition in principle follows the 'ECHP' definition, but missing data on actual household composition is substituted with information on "family" composition, derived from the Central Population Register. It is documented that the differences between the household concept and the family concept is considerable, especially for the age group 25- 35 (consensual unions and students) as well as their parents (age group 45-55). However, the consistency is better in the age group 65 +, and it is in this group where non-response is highest.

Sweden:

Children 16-24 years had to be eliminated from the table as these would have been counted as separate households and thus affected the income distribution. As mentioned under the discussion of issues concerning Sweden, the household definition applied in Sweden for this data has some negative effects on comparability, and a revision is going on.

**The equivalence scale to be used is the OECD modified scale:** weight 1 for first person, 0.5 to each subsequent person aged 14 or more, and 0.3 to each child aged under 14.

Deviations:

Norway: 'children' delimited as 0-16 (age groups 14-16 are given the weight 0.3 in stead of 0.5).

UK (GHS): 'children' delimited as 0-16 (age groups 14-16 are given the weight 0.3 in stead of 0.5).

UK (BHPS): 'children' delimited as 0-16 (age groups 14-16 are given the weight 0.3 in stead of 0.5).

**Dependent children:** age less than 16 years or between 16 and 24 living in a household of which at least one of their parents is a member and who are economically inactive.

Deviations:

Netherlands:

Child less than 18 years living with parents

UK (GHS):

persons aged under 16 years, or single persons aged 16 -18 years and in full time education.

UK (FRS):

person aged under 16 years, or 16-18 years in full time education.

**Income definitions:**

**Net disposable income:** an exhaustive as possible concept, with the exception of imputed rent and all types of income in kind (any adaptations should be specified in the documentation)

Deviations:

As it is not the purpose of this study to investigate in detail the comparability on component level, only some major issues are noted. Some countries have potentially richer information on for instance capital gain and non-cash benefits. However, for the sake of comparability several adjustments were made:

Denmark:

Denmark has in general provided much more detailed income specifications than asked for, and there are several possible deviations:

- Income in kind is included for taxable value of specific items (see Annex).
- Net imputed rent (estimated as 2,5 per cent of cash value) included for self owned dwellings.
- Alimony is not included, but can be included in future (2000 onwards).

Finland:

Fringe benefits (tax-values and taxes paid on them) are included in gross and disposable income. However, Imputed rent, other non-cash benefits and capital gains were excluded from the calculations.

Netherlands:

The national source (IPO) does not measure some parts of private income: 1. parental financial support received by children studying away from parents' home, 2. alimony for children received by ex-partners. The average amount of the missing components is not very large, but for some groups of households (students, divorced single-parents) this may mean that a significant fraction of income is missing.

Norway:

Wages and salaries also include certain taxable benefits in-kind.

Taxed realised capital gain is included. However, as documented in the detailed review of the data, this wouldn't much influence the main income distribution in the years investigated.

### Sweden:

For Sweden different alternatives were provided especially concerning the handling of capital gains and interests:

- Including capital gain, excluding paid interest
- Excluding capital gain, including paid interest
- Capital gain has been excluded as well as the tax from it. Paid interest is here regarded as consumption and is not deducted from the income, but no recalculation of the tax has been done (this alternative is considered to be most comparable to the data provided by the other countries).

Gross income: Items 6 and 8 from income methodology should not be included.

### **Equivalised net disposable income (table 1):**

The net disposable income per person: The total net disposable income divided by the number of persons, taking account of the equivalence scale. Thus each person is given weight according to the household structure. If a household for instance consists of two adults and one child <14 years, the equivalised number will be  $1 + 0,5 + 0,3 = 1,8$ .

### **Income components (table 3)**

The definition of the specified components should in principle follow the ones applied in the proposed "income methodology" (de Wreede, 1999). Some specific comments are provided in the overview for each country.

### **Mean equivalised net disposable income (table 4)**

The mean should be calculated for each group by dividing the sum for all persons of equivalised net disposable income by the number of persons (weighted if weights are used) in each group.

### On the different background variables:

There are some deviations concerning the definitions and classifications used commented on in the text and in the country overview in Annex 1.

**Marital status:** the "de jure" concept should be used

### Deviations

Netherlands:

'Married' includes people living in consensual union (approved by authorities)

UK (GHS): cohabiting couples and same sex couples have been included within the married code

UK (BHPS): those classified as never married recoded to single.

UK (FRS): single sex couples are classified as single as are non-married mixed sex couples

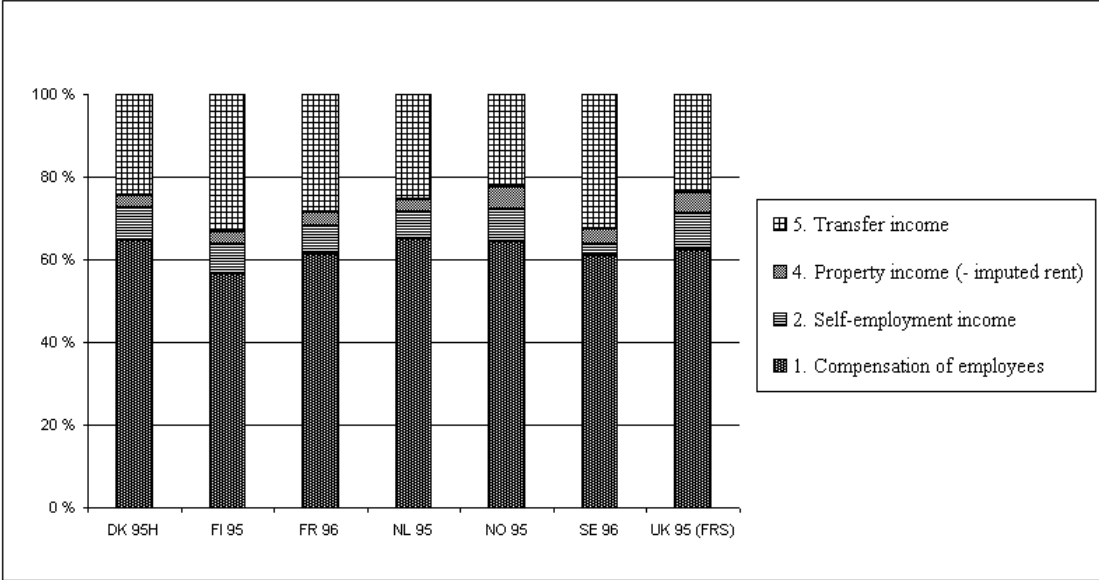
## **5. Total income and income components**

### **5.1 Income components**

An overview of the main income components is provided mainly in order to assess the coverage of the net disposable income concept.

The following graph showing the main income components as based on data from assumed best national sources:

**Fig. 1. Main income components. National sources**



As mentioned above, an attempt has been made to harmonise the concept of 'net disposable income', when handling for instance real capital gains and interests paid/received. Even if there still are some discrepancies, for instance in the handling of 'remuneration in kind' and 'home production etc.' (see table 1 above) it is assumed that the figures for 'net disposable income' have acceptable comparability.

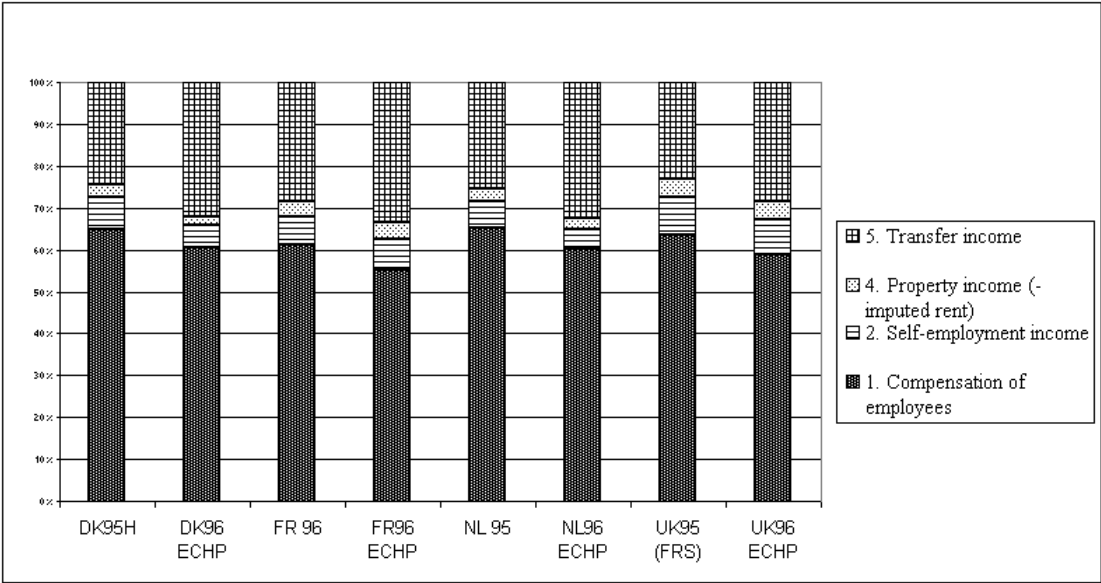
It should be noted the way capital gain/interests paid/received is handled can have substantial effects on the figures for property income (see Sweden in Annex 1) and possibly also the figures for self-employment (see figures for Denmark).

Based on table 1 and figure 1 it is worth noting the differences in income structure, even for countries 'assumed to be similar'. More than 30 per cent of gross income in Sweden and Finland is coming from 'transfer income' while the percentage in Denmark and Norway is 22-25 per cent. Income from 'self-employment' in Sweden is estimated to around 2,5 per cent, while this percentage in other countries varies from 6 - 9 per cent.

It is also worth noting that 1995 was a special year in Finland, being the end of a deep recession. This recession can partly explain the low share of wages and salaries and very high share of transfers received.

As the ECHP can only provide the components as net figures it is not easy to compare with the national data based on gross figures as the taxes/transfer payments are not evenly distributed on the components (figure 3).

**Fig. 2. Income components. National sources (gross) and ECHP (net)**

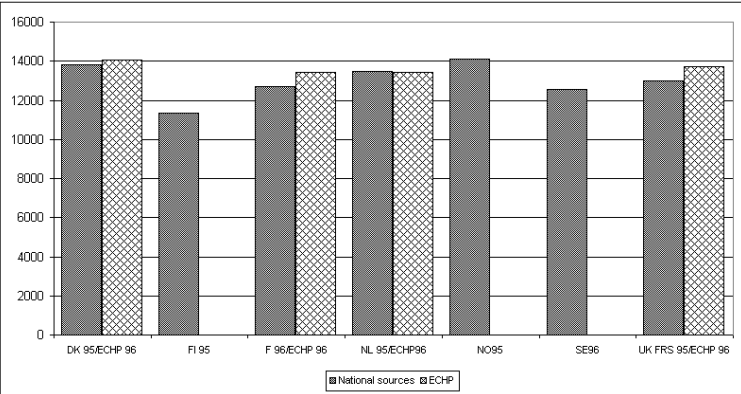


Given that the tax level will normally be higher for the component 'compensation of employees' there seems to be some coherence between ECHP figures and national figures on this aggregate level.

The ECHP measures a lower fraction of income originated from self-employment than IPO in the case of the Netherlands. Much of explanation for the difference is assumed to be that the Dutch ECHP does not measure income from self-employment properly. In many cases self-employed do not know their income in previous year (or in year T-2) while some refuse to report on their income. An additional factor is a slight under-representation of the self-employed in the Dutch ECHP.

In the case of France self-employment income is more important in ECHP than in the FIS because self employed with limited income can declare lump sums to the fiscal administrations.

**Fig. 3. Average net disposable equivalised income. PPS. National sources and ECHP**



Comparing average net disposable income in purchasing power parities (Fig. 3) gives a relatively consistent picture for those countries where two sources are available. The deviation is maximum about five per cent (UK and France). It should be noted that the ECHP version used correspond to income in mentioned reference year,

except in the case of France, where the ECHP figures are for preceding year.

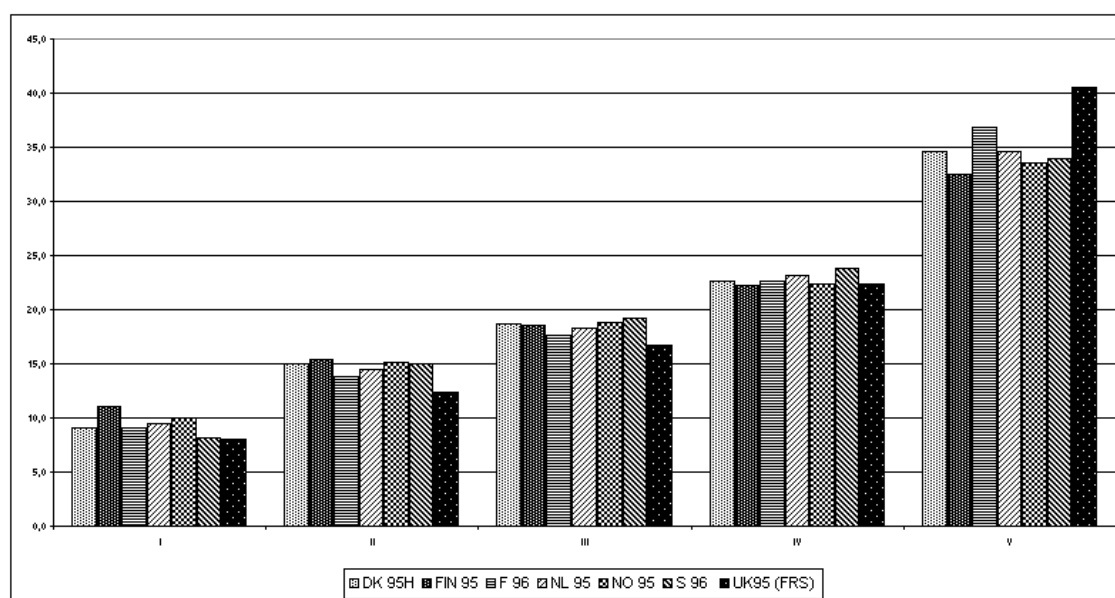
However, there are still weaknesses in comparability, partly due to the handling of components related to 'transfer income', especially when analysing specific subgroups.

## 5.2 Net income distribution

Figure 4 is based on what are considered to be the best national sources. It should be noted that there is a combination of data for 1995 and 1996.

Denmark, Sweden and UK have all provided data based on different sources or calculations (see the description of the national data in Annex 1). For Denmark the one based on a dwelling household concept is used. The one included for UK is the Family Resources Survey considered to be the best national source for income analysis. For Sweden the alternative used is the one assumed to be most comparable with other countries. In this one capital gain has been excluded as well as the tax from it. Further paid interest is here regarded as consumption and is not deducted from the income, but no recalculation of the tax has been done

**Fig. 4. Income distribution. Quintiles. National sources**



Based on this graph as well as table 1, the following observations can be made:

- Finland has the most equal income distribution
- Netherlands and Norway have a relatively similar distribution
- Sweden has relatively low income in the lowest decile but is for the rest similar to France, Netherlands and Norway.
- UK has the most unequal distribution

Summarised as the relationship between the top quintile and bottom quintile (S80/S20) the following table can be given:

**Table 6. The ratio between the top twenty and bottom twenty deciles (S80/S20). National sources and ECHP**

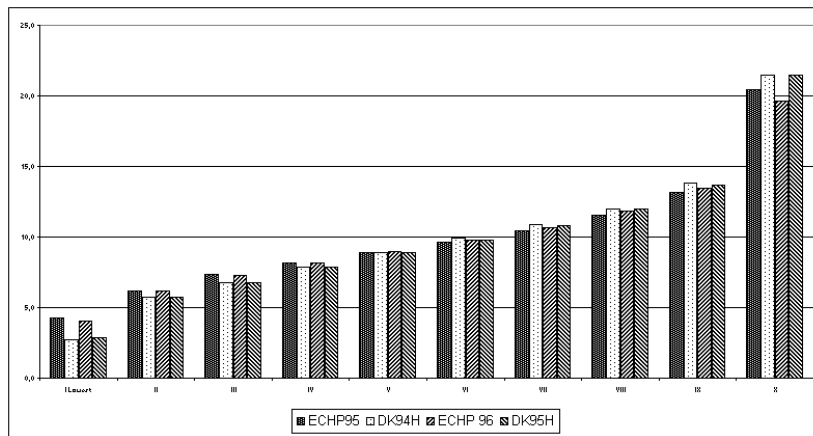
	DK 95H	FIN 95	F 96	NL 95	NO 95	S 96	UK95 (FRS)	UKBHP95	UKGHS95
Nat source	3,8	2,9	4,0	3,6	3,4	4,2	5,0	5,2	7,6
ECHP	3,2		4,4	4,3			5,2	5,2	5,2

This table confirms the picture of Finland as having the most equal distribution, followed by Norway, the Netherlands, Denmark, France, Sweden and UK.

For those countries where ECHP data are available, the table indicates that there are some discrepancies. This will be discussed further below.

## Denmark

**Fig. 5. Income distribution. Denmark. National source and ECHP**



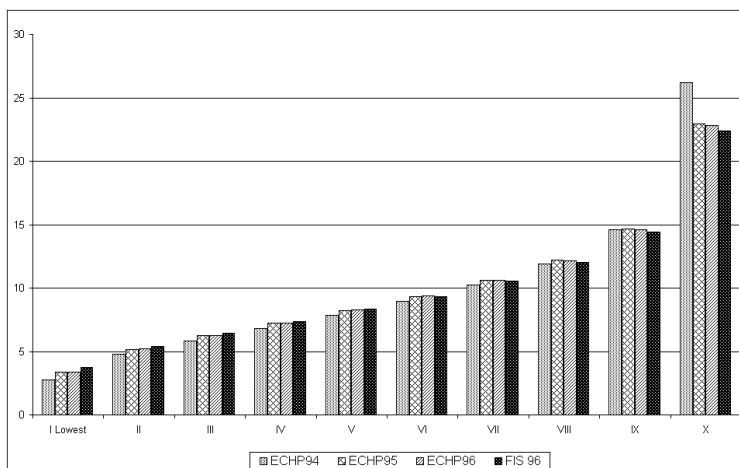
In Denmark the main differences between the ECHP and national sources appear to be in the lower and upper end of the income distribution. The ECHP estimates give some higher levels for the lowest quintile. At the top end the ECHP indicates a decreasing level, while national

sources indicate a more stable situation. For the rest the differences are minor.

It is assumed that the national income figures in general have a higher quality than the ECHP figures (see also Jørgensen; J.M. (1998)). However, one issue might be the operational delimitation of dwelling households in the register based income statistics in Denmark, that could explain especially the difference in the lowest decile. One example is the inclusion of pensioners living in dwellings that in the ECHP might be considered as living in institutions. Furthermore, in the national source all persons living in the country by the end of year are included. Thus persons living in the country for a relatively short period will contribute to lowering the income level. This can be adjusted. Finally it can also be assumed that there are differences in handling negative income and income by self-employment that can contribute to the explanation.

## France

**Fig. 6. Income distribution. France. National source and ECHP**



As France only has separate national figures for one year, this is compared to ECHP figures for the three years. It should be noted that the income year in FIS 96 is 1996 while it is 1995 for ECHP 96. Thus FIS 96 is not in principle directly comparable to any of the ECHP figures. The major difference is between ECHP 1994 and ECHP 1995.

Apparently national data from the Fiscal Income Survey give the impression of a more equal distribution than the ECHP. One reason for this is that there is more 'noise' in the ECHP figures, causing a more unequal distribution.

The average income in the first decile is higher in the national source in France (FIS) than in the ECHP possibly because very few of the population with small incomes fill in tax returns.

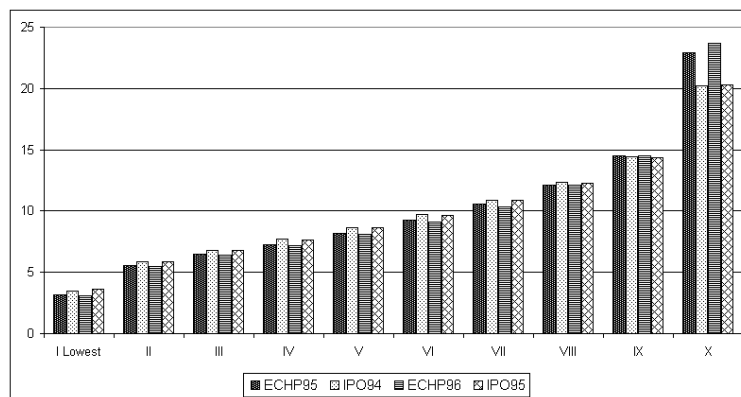


The imputation process can also give some effects: most allowances are not subject to income tax, and are not reported in the income tax return, so they are imputed in FIS (all family allowances are imputed, this is the same for housing allowances...). The choice of households to be given housing allowances is based on income, but it is likely that housing allowances to poor people is quasi systematically imputed, whereas in fact some of them didn't claim one.

Income of the highest decile may also be a bit underestimated in FIS, because one can reduce ones taxable income by investing in some particular sectors . For instance if you buy a flat and rent it, then you can, under some more specific conditions, deduce a large part of the price of the flat of your income each year.

## Netherlands

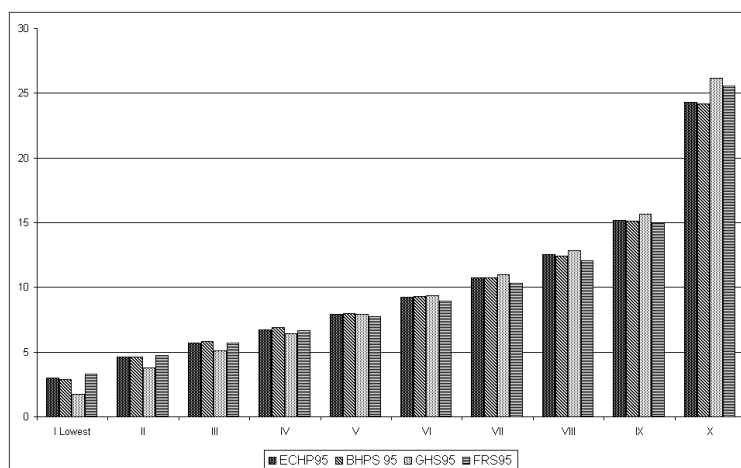
**Fig. 7. Income distribution. Netherlands. National source and ECHP**



The chart on income distribution in the Netherlands (Fig. 7) shows that ECHP measures a slightly higher inequality than the IPO, with a main difference in the higher deciles. The relative large proportion in the top decile as measured by the ECHP, might be explained by the existence of outliers.

## United Kingdom

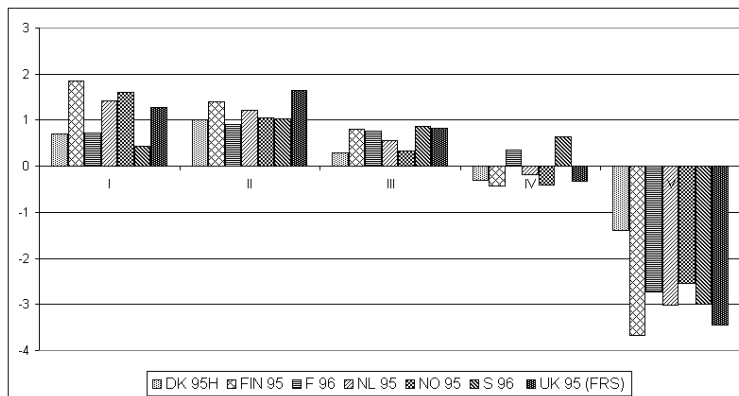
**Fig. 8. Income distribution. United Kingdom. Different alternatives**



The graph combines the ECHP data for 1996 (income 1995) with data from three national sources for 1995: the British Household Panel (BHPS), the General Household Survey (GHS) and the Family Resources Survey (FRS). The FRS is considered to be the best national source related to income as this survey has a larger sample and asks more exhaustive questions about

all possible sources of income. The FRS is fairly close to the ECHP and the BHPS in most deciles, except for the highest one. The GHS deviates from the other in mainly in the lower and the upper deciles. The difference can partly be attributed to the coverage of income components (see Annex 1 for a discussion of the different surveys).

**Fig. 9. The differences between gross and net income distribution. Quintiles**



Using national data makes it possible to analyse the differences between gross and net income distribution. Figure 9 illustrates the differences between the gross and the net income distributions for each quintile. For all countries the relative share in the first three quintiles have increased and decreased in the highest quintile when

going from gross to net distribution. The effects on the redistribution is apparently largest in Finland.

## 6. Income distribution and background variables

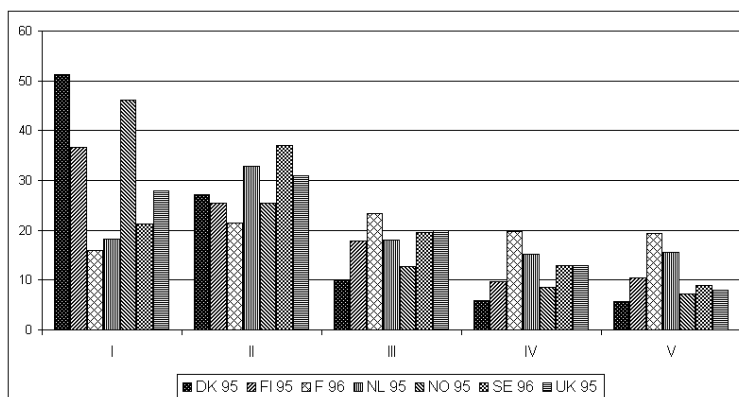
This overview will give some examples on income distributions for specific groups as delimited by the background variables. As the data on citizenship are rather fragmentary, these will not be covered. See Annex 3 for a more detailed overview of the available data.

It should in general be noted that there might be differences in the way background variables and income is linked that can reduce comparability in some cases. In the case of Norway, for instance, the classifications for "status in employment", "main activity status", "economic activity" and "educational attainment" are based on the person interviewed, not the person having the main income.

### 6.1 Age

Income distribution by age groups appears to be relatively consistent between the national sources and the ECHP (Annex 3). The main exception is the group 65 +, partly due to household definitions and partly due to possible higher non-response and uncertain figures for this group.

**Fig. 10. Income distribution. Age group 65 +. National sources**

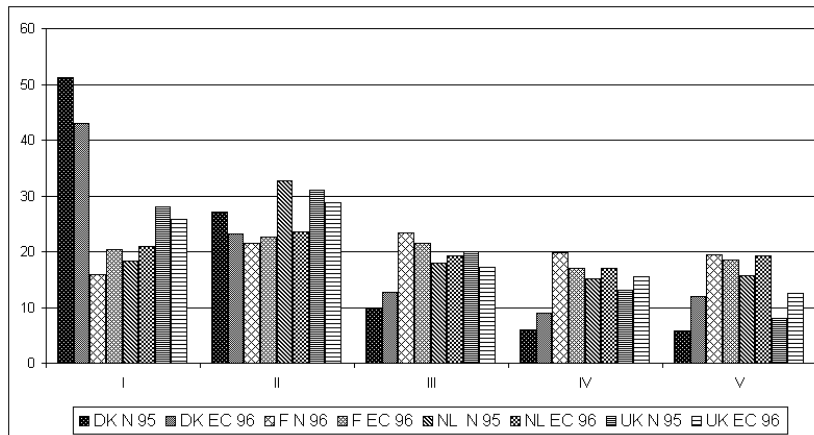


Apparently, the income distribution for the elderly (65 +) differs very much between the countries, as based on national sources (Fig. 10). Denmark, Norway and partly Finland, have high percentages in the lower quintiles, whereas France, the Netherlands, Sweden and UK have a more even distribution. However, one should be

careful in the interpretation of these figures. In the case of Denmark it is known that the household definition applied include more elderly than in other countries. And in general there might be differences in the handling of this group in the surveys that should be clarified and

taken into account. One aspect is also that non-response normally is relatively high in this group.

**Fig. 11. Income distribution. Age 65 +. Different national sources**



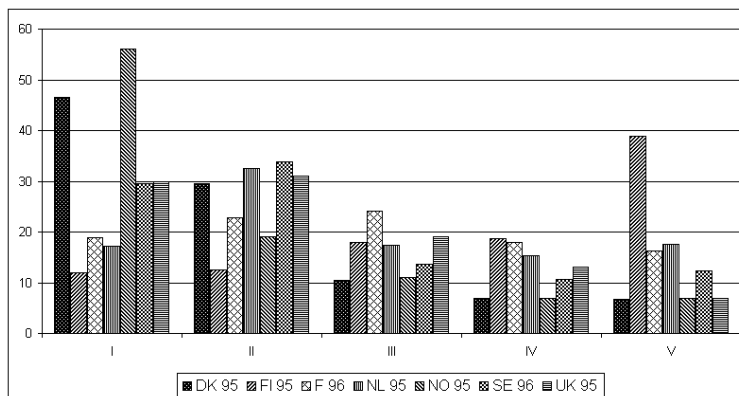
A combination with ECHP data for those countries where data are available (Fig. 11) to some extent verifies the differences. The national source in Denmark still has a higher rate in the lower quintiles - and lower in the top quintile (as expected). The

French source gives figures relatively close to the ECHP. The Dutch data deviates mainly in the 2<sup>nd</sup> quintile, while the in UK the national source is somewhat higher in the lower and lower in the higher.

## 6.2 Marital status

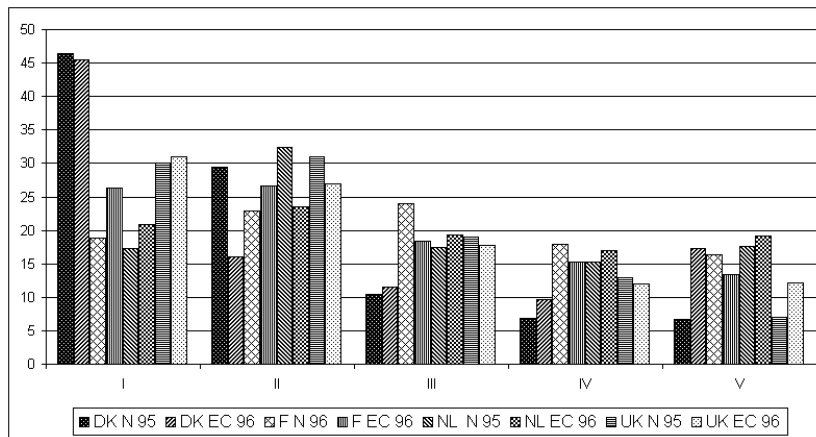
Marital status (de jure) is a concept with increasing limitations in several countries, as the number of consensual unions are increasing. Thus any interpretation of figures based on marital status should be cautious, especially when broken to relatively small subgroups such as 'widowed' in Figure 12. Actually the figures on 'widowed' appear to show the main differences between national sources and the ECHP, but 'divorced' and 'separated', when available, can also vary to a great extent (see UK figures).

**Fig. 12. Income distribution. Widowed. National sources**



The income distribution for the 'widowed' between the countries is to some extent are consistent with the that for the elderly (for instance Denmark, Norway and Sweden). The pattern for Finland is quite different from the rest, with a relatively high percentage in the highest quintile.

**Fig. 13. Income distribution. Widowed. Different sources**



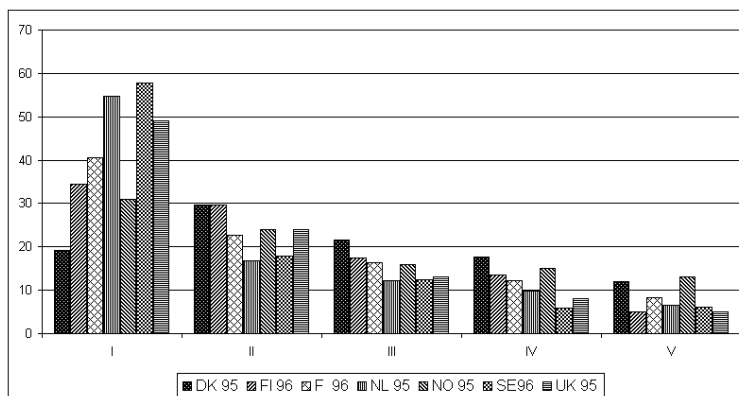
The consistency between the national sources and the ECHP is some cases quite well. However, there are also major differences in some of the quintiles (e.g. Denmark, 2<sup>nd</sup> and 5<sup>th</sup> quintile), and the problem is that there can be considerable 'noise' due to uncertainty. The

average income for 'widowed' in Denmark is around 1900 lower in the national source than in the ECHP, measured in PPS.

### 6.3 Status in employment

It should be observed that the variables 'status in employment' and 'main activity status' can be defined and delimited somewhat different in national sources and the ECHP. There might also be some mixing of these two variables. One important subgroup in relation to income and social exclusion is the unemployed.

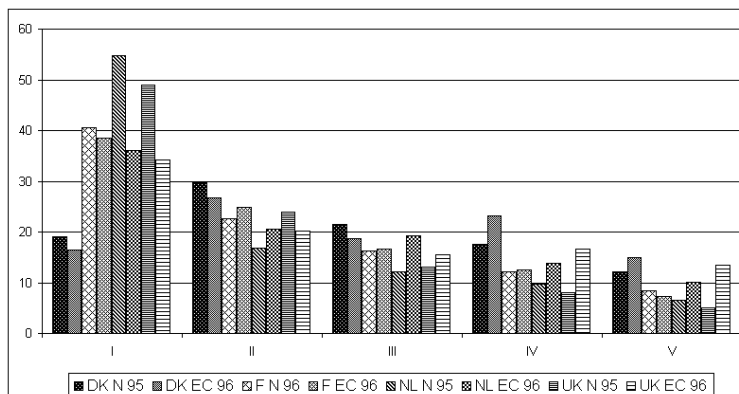
**Fig. 14. Income distribution. Unemployed. National sources**



The precise definition of the unemployed can differ (cp. the narrow definition in the Netherlands). This might be an explanation for the relatively more equal income distribution for the unemployed in Denmark, Norway and Finland. One issue is for instance the length of period unemployed in the income year. There might also be

differences in payments to the unemployed.

**Fig. 15. Income distribution. Unemployed. Different sources**

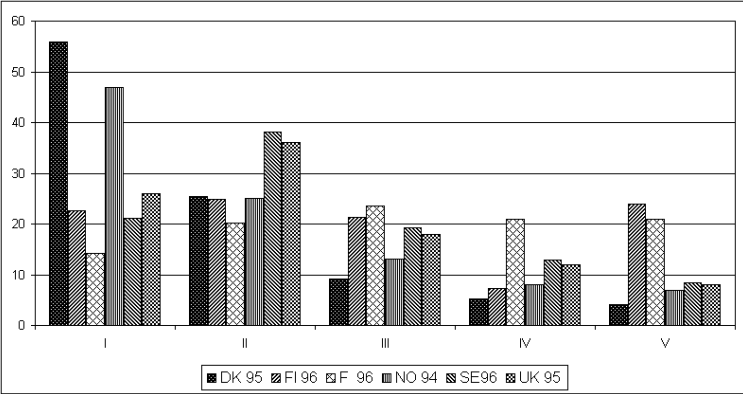


The Danish and the French data correspond quite well to the ECHP figures (Fig. 15). Especially for the Netherlands and the UK, the national data appear to give a picture of larger differences than the ECHP data. In the case of the Netherlands it is obvious that the ECHP and the IPO are not providing

comparable figures due to differences in definitions. The ECHP implements the ILO definition while the IPO uses a very narrow definition based on income sources: only persons receiving unemployment benefits are considered unemployed. The rest of jobless people not receiving the benefit are classified as inactive.

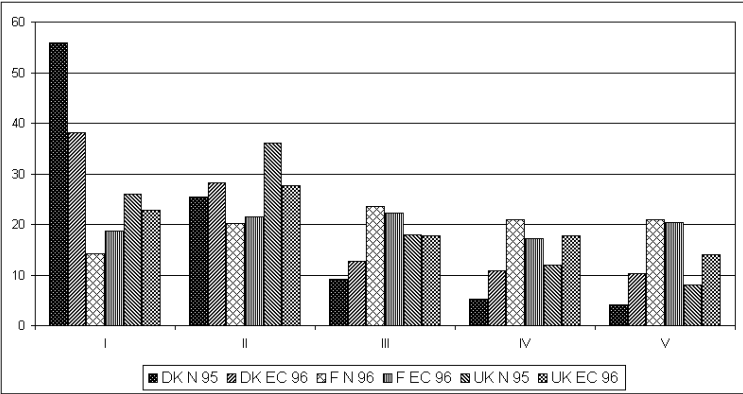
**6.4 Main activity status**

**Fig. 16. Income distribution. Retired persons. National sources**



As expected, there is a high degree of consistency between the income distribution of those 65 + and persons on retirement. However, in the case of for instance Finland, there is an even more equal distribution for the retired than for those 65 +.

**Fig. 17. Income distribution. Persons retired. Different sources**

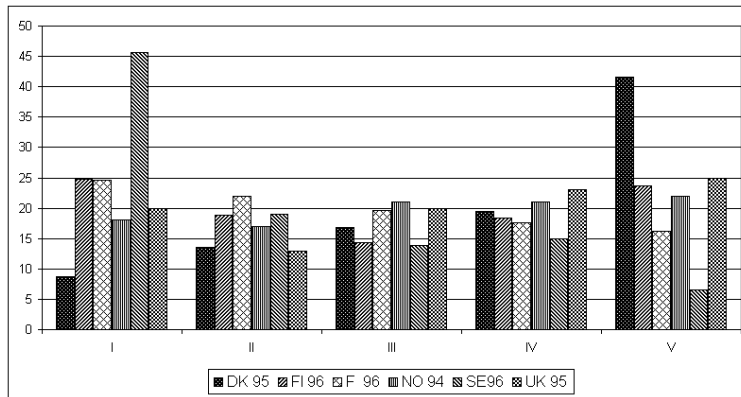


For the three countries having different sources, there are some significant differences between the national sources and the ECHP. One explanation can be higher non-response in this group, and thus data with lower quality. The source for UK is the GHS in this case, as the FRS does not include this variable.

**6.5 Economic activity**

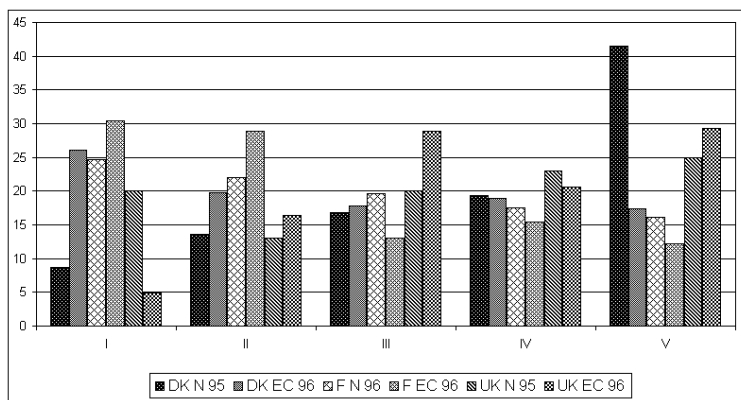
Even if the classification by economic activity is in three main categories, it appears to be some problems with consistency and comparability - as seen in Annex 3. One main issue can be the classification in the sector of agriculture, forestry and fishing, due to the increasing tendency for combination with income from other sources. But as seen from figures from France and partly Denmark, there can also be problems with the category industry etc.

**Fig. 18. Income distribution. Primary industries. National sources**



The national figures indicate considerable differences in the income distribution between countries for those having agriculture etc. as economic activity. The structure is quite opposite in for instance Denmark and Sweden, and one might assume that part of this difference is related to classificatory issues.

**Fig. 19. Income distribution. Primary industries. Different sources**

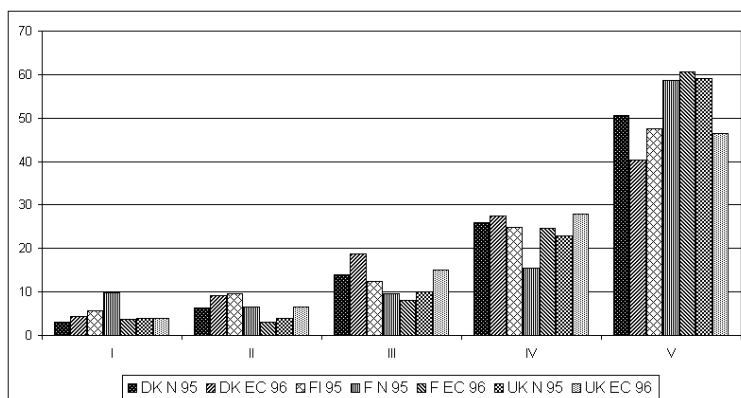


In general, there are problems with the consistency between national data and the ECHP concerning income distribution for those with agriculture, forestry and fishing as their main activity. Differences are especially large for Denmark and the UK.

## 6.6 Occupation

Information on income by occupation is only available for four countries. There are some doubts about the consistency between the classification used in national sources and the one applied in ECHP. Thus one can also observe major differences between the national sources and the ECHP for most of the subgroups (Annex 3). In the FRS (UK) the classification differs and there seems to be no direct mapping between the classifications. The one selected, professionals, has the same definition.

**Fig. 20. Income distribution. Professionals. Different sources**



As observed, there are quite arbitrary differences between the national sources and the ECHP, even if the overall trend is consistent. Differences can be attributed to differences in classifications and to 'noise' in the measurements.

## 6.7 Education

Education is an important background variable for studying income differences. Annex 3 illustrates that there are problems getting consistent data for the group 'no education completed' or 'still school'. The subgroup selected in this case is those having highest education - assumed to be most represented in higher income groups.

**Fig. 21. Income distribution. Education on tertiary level. Different sources**

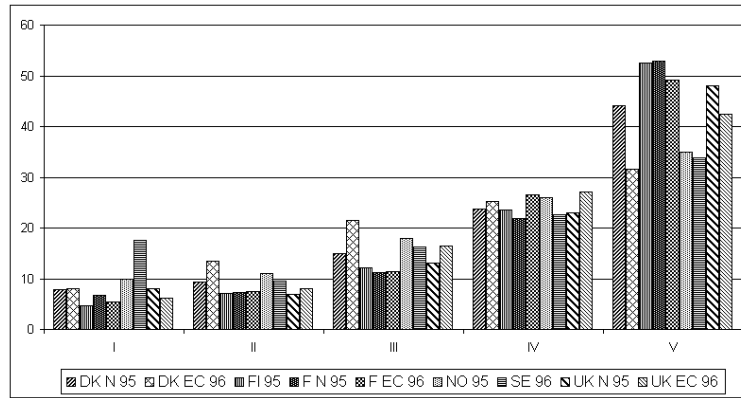


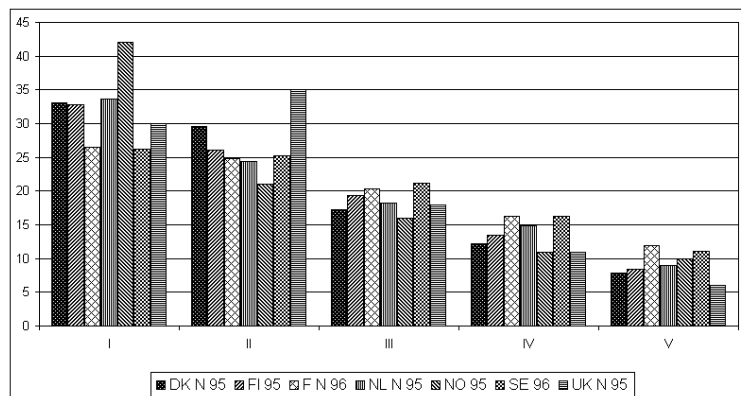
Fig.21 illustrates the main pattern that those having the highest education are having the highest income. However, there are some differences between national sources and between countries. National data for Sweden and partly Norway show a more equal pattern for those having highest education. National

data for Denmark differ from the ECHP both in the 3<sup>rd</sup> and the 5<sup>th</sup> quintile. The different data sets for France, Netherlands and the UK are somewhat more consistent.

## 6.8 Tenure status of household

Ownership of the housing unit can be assumed to have some relationship with income level, but will also depend on national traditions and specificities. The group illustrated is the households where a member of the household is tenant.

**Fig. 22. Income distribution. Tenure status= tenant. National sources**

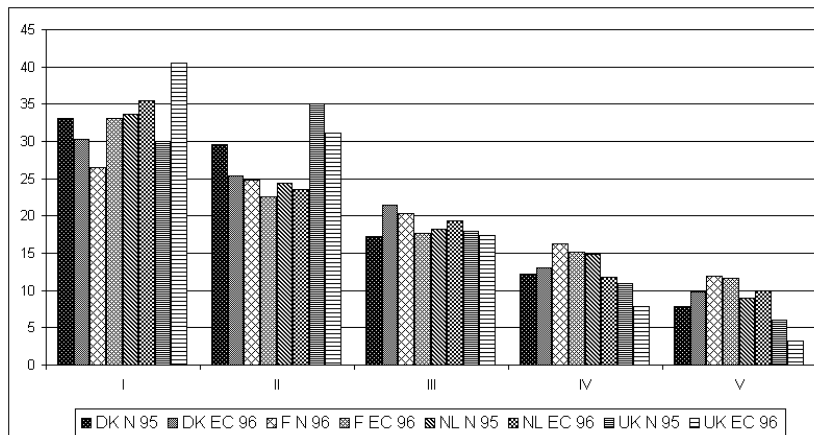


The pattern across different countries is relatively consistent; 25- 42 per cent of households with tenants are in the lowest quintile, and less than 12 per cent in the highest. Norway deviates with a very high level in the first quintile, whereas UK also has a high percentage in 2<sup>nd</sup> quintile. When evaluating this

variable one should take account of the differences in the ownership/tenant structure between countries. In Norway there are for instance relatively few in the tenant group - which might be part of the explanation for the high figure in the first quintile.

**Fig. 23. Income distribution. Tenure status = tenant. Different sources**

Actually, the ECHP in the case of UK has an even higher level than the national source in the

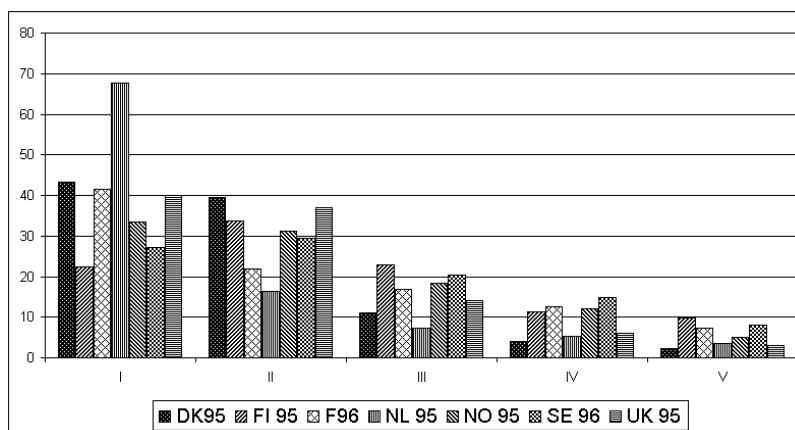


two lowest quintile combined. The national source in Denmark is higher than the ECHP in the two lowest quintiles, whereas the French national data are somewhat lower in the first. Dutch data are rather consistent.

**6.9 Household type**

The income situation of different households types is of main interest - but also sensitive in relation to the way households are delimited. The group selected, single parents with dependent children can be expected to be over represented in lower income groups.

**Fig. 24. Income distribution. Single parents with dependent children. National sources**



This overview presents a fairly consistent picture with a relatively large share of this group in the lower income groups. There are some 'outliers': the Dutch data give a very high proportion in the first quintile (see also comparison with ECHP figures). This might be explained by a

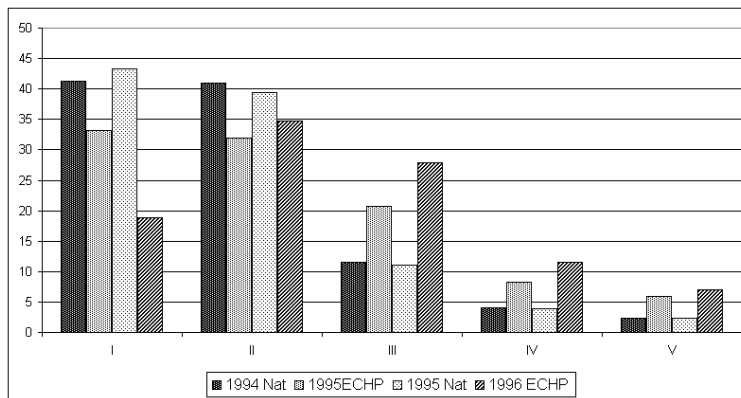
(relatively) low level of social benefits the majority of these households live on. On the other hand Finland and Sweden have low percentages in the lowest quintile. This can partly be explained by better support for persons in this group (cp. the high level of transfers in Finland and Sweden). In the case of Finland is also seen that the economic situation of single parents will be given a less favourable picture when net imputed rent is included in the income calculations.

A more detailed comparison of the countries where two sources are available give the following picture:



## Denmark

**Fig. 25. Income distribution. Denmark. Single parents with dependent children. National source and ECHP**

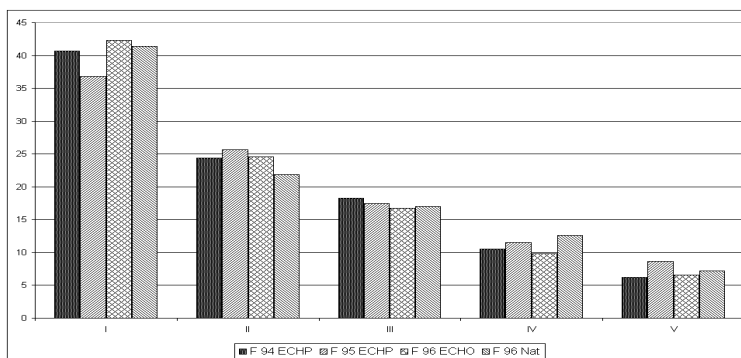


The national source adjusted to a household definition gives a higher share in the lower quintiles for the two years. One explanation can be that the delimitation of this group differs in the ECHP and in the national source, due to differences in the household definition. It can also be observed that the ECHP figures for the two following years differ with a shift towards the higher quintile in the last year. However, one problem can also be 'noise' in the ECHP figures due to increasing uncertainty when broken down to subgroups.

The national source adjusted to a household definition gives a higher share in the lower quintiles for the two years. One explanation can be that the delimitation of this group differs in the ECHP and in the national source, due to differences in the household definition. It can also be observed that the ECHP figures for the two following years differ with a shift towards the higher quintile in the last year. However, one problem can also be 'noise' in the ECHP figures due to increasing uncertainty when broken down to subgroups.

## France

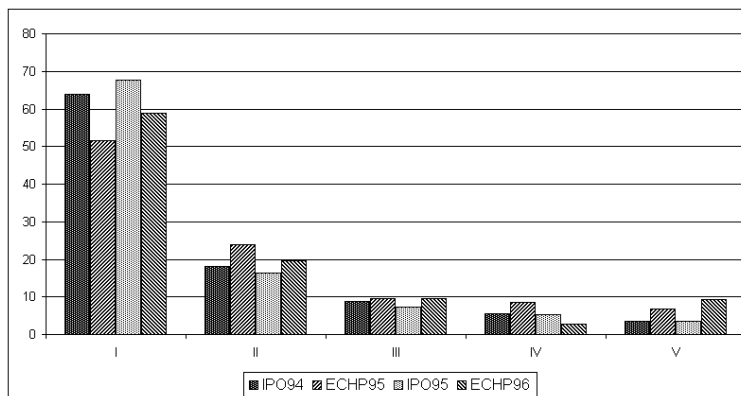
**Fig. 26. Income distribution. France. Single parents with dependent children**



The consistency between the ECHP figures and the national source is quite good. However, there are some differences in the ECHP over the years - that might be due to uncertainty or 'noise' in the ECHP data.

## Netherlands

**Fig. 27. Income distribution. Netherlands. Single parents with dependent children**

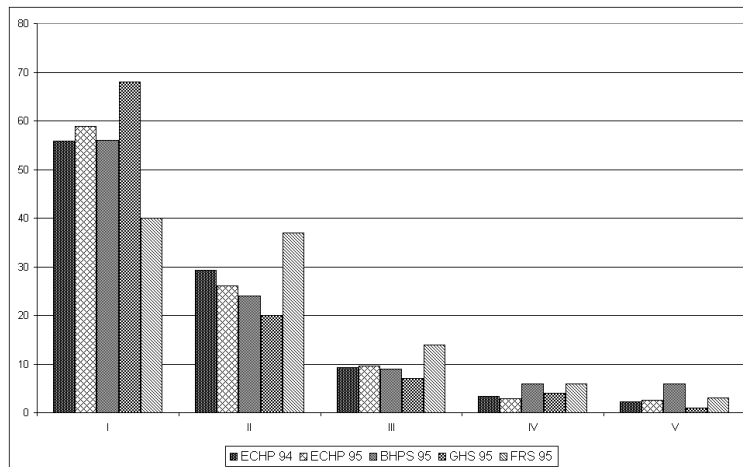


The ECHP 1994 and the national figures are relatively close. However, some differences exist. The main reason for this might be measurement errors in the ECHP. A part of the difference between the ECHP and the IPO can be explained by the fact that the IPO does not take into account alimony for children received from the ex-partner, an important income component low income people belonging to this household type.

The ECHP 1994 and the national figures are relatively close. However, some differences exist. The main reason for this might be measurement errors in the ECHP. A part of the difference between the ECHP and the IPO can be explained by the fact that the IPO does not take into account alimony for children received from the ex-partner, an important income component low income people belonging to this household type.

## UK

**Fig. 28. Income distribution.UK. Single parents with dependent children**

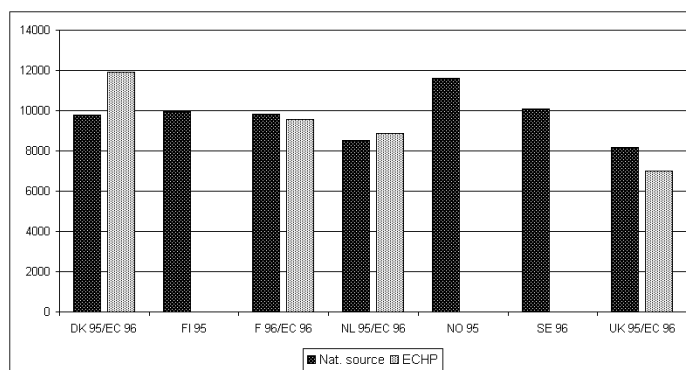


The GHS figures and the FRS figures are deviating from the picture given by the ECHP and the BHPS. The GHS has a very high level in the first quintile, while the FRS figure has a relatively low level in the first quintile (on the level of the other countries though), while the second quintile is somewhat unusual. In general it is considered that the FRS figures should have the highest reliability. It

should be noted that the GHS was not weighted at this point whereas the BHPS and FRS were. The difference could also relate to sampling variation.

### Average income

**Fig. 29. Average income. Single parents with dependent children. PPS**



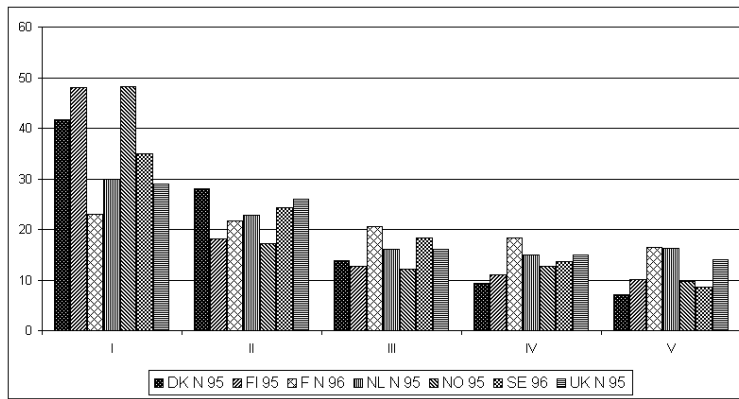
When comparing the average income of single parents with dependent children (Fig.29) one can observe that the level is fairly consistent between the national source and the ECHP in France and the Netherlands, while the differences are rather important in Denmark and in UK. Evidently the overall level is quite similar in Denmark, Finland, France and Sweden,

whereas the level in Norway is relatively high and the average income level for this group in the Netherlands and UK relatively low.

### 6.10 Household size

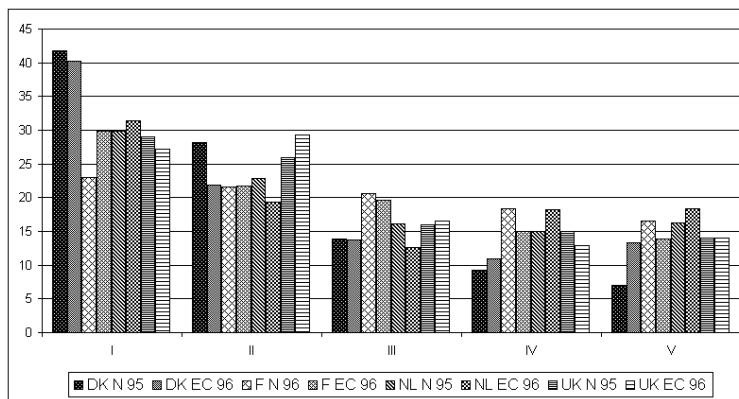
Income by household size is also assumed to be quite sensitive to the consistency of the operational definition of households. A group of interest is one person households.

**Fig. 30. Income distribution. 1 person households. National sources**



The overview based on national sources indicate some similarity between Denmark, Finland and Norway with a very high percentage in the lowest quintile and a low rate in the highest.

**Fig. 31. Income distribution. 1 person households. Different sources**



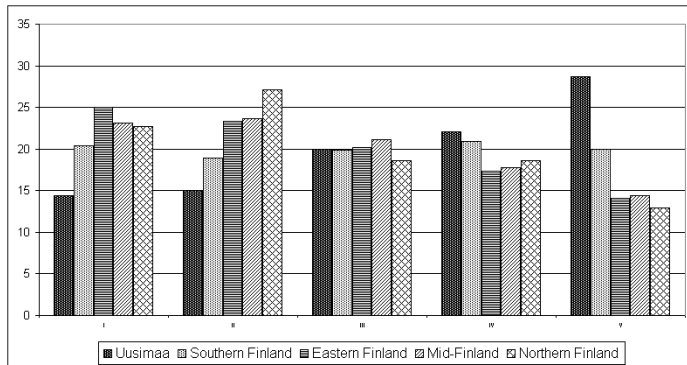
The Danish data differ from the ECHIP mainly in the 2<sup>nd</sup> and 5<sup>th</sup> quintile. Part of the explanation can be the differences in the household definition - especially for the elderly. French data differ in the 1<sup>st</sup>, 4<sup>th</sup> and 5<sup>th</sup> quintile. There are some minor differences also in the Dutch and in the UK data, but the overall trend is consistent.

## 7. Regional income distribution

Three of the countries have provided income distribution by regions: Finland, Netherlands, Sweden. These data are summarised in the following:

## Finland

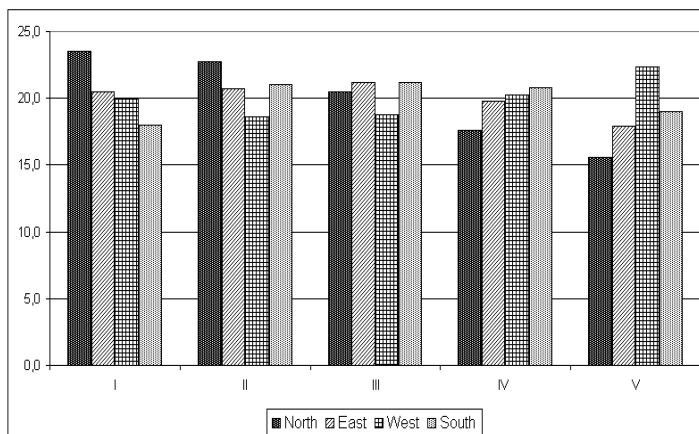
**Fig. 32. Income distribution. NUTS 2. Finland. 1995**



Income distribution is given at NUTS level II for Finland, except for Åland, where there are two few observations as a basis for the calculation. The region around Helsinki (Uusimaa) has a clear profile with low percentage in lower quintiles and high in higher. Southern Finland is rather balanced while the other regions have a low percentage in the higher quintiles.

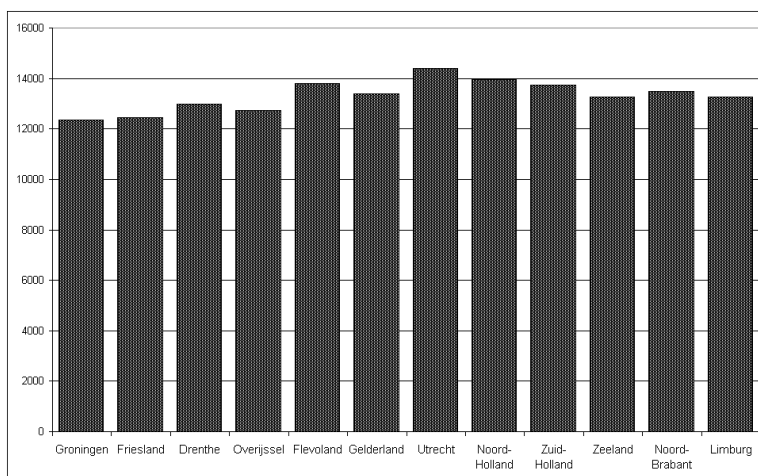
## Netherlands

**Fig. 33. Income distribution. NUTS 1. Netherlands**



Income distribution has been provided both for NUTS 1 (see figure) and for NUTS II. Fig. 33 tells for instance that the North region is over-represented in the lower quintiles, while the West region is over-represented in the highest 20 % income group.

**Fig. 34. Average income level. NUTS 2. Netherlands. PPS 1995**

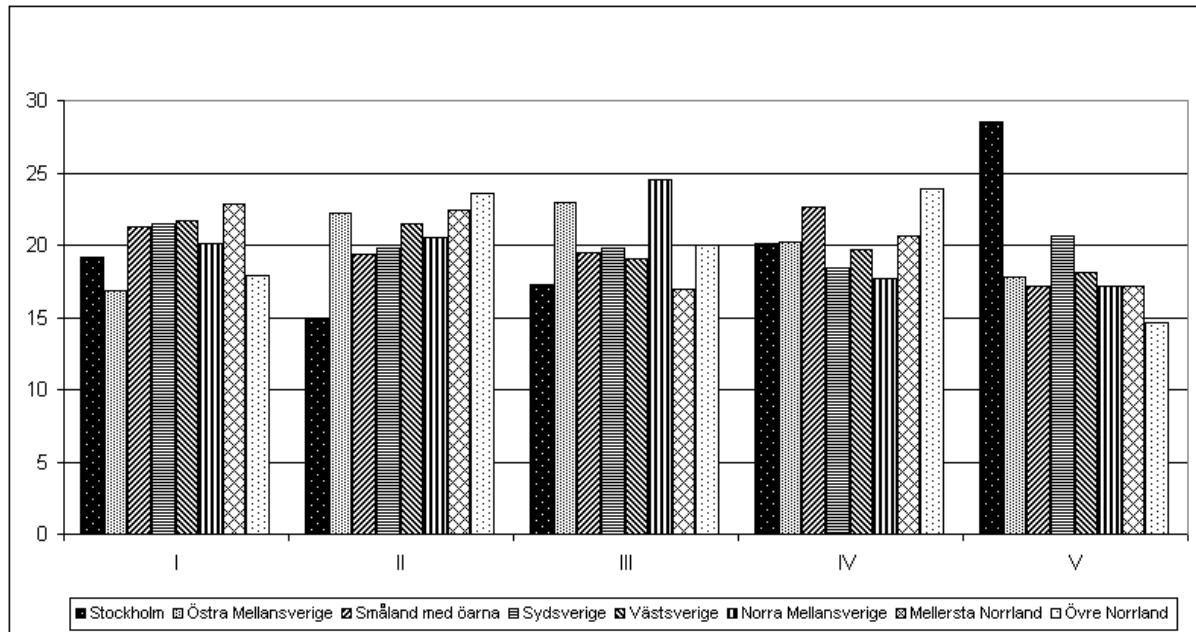


When comparing the average income level (measured in PPS) at NUTS 2 in the Netherlands (Fig.34), it is observed that Utrecht is at the top, while Groningen and Friesland are at the bottom.

## Sweden

Also Swedish data on regional income distribution show a strong overweight in the capital region in the highest income group. The differences between the other regions are smaller and not very systematic. Some regions are for instance over-represented in the income groups in the middle.

**Fig. 35. Income distribution. NUTS 2. Sweden**



## Literature

- Andersen, Arne S. (1997): "A new longitudinal survey on welfare" (Paper presented at Nordic statistical meeting 1998, and IASS/IASO Satellite meeting on longitudinal Studies, 1997.
- Beyond ECHP: EU Data Source on Income and Living Conditions (DOC. PAN 122/99)
- Byfuglien, J. (2000): Comparability of Income Data - Interim Progress Report, Statistics Norway, August 2000.
- Church, J. et al.: Overview of the proposed standards for income distribution statistics. Paper prepared for the 26<sup>th</sup> General Conference of the IARIW, Cracow, 2000
- Epland, Jon (1996): The combination of survey data and register data - the case of Norway. Presentation at Expert group on household income statistics Canberra 2-4 December 1996
- European Community Household Panel (ECHP): Research Volume 2. Comparison with the labour force survey: The Netherlands Report by Statistics Netherlands 1996
- Franz, A, Ramprakash, D. and Walton, J. (1998): Statistics on the Distribution of Income, Consumption and Accumulation of Households (DINAH). Preliminary report.
- Harala, R. and Tyrkkö, A. (1998): Measuring income and poverty with register and interview data. Paper at High level Think Tank on Poverty Statistics 20-21 January 1998.
- Jansson, Kjell (2000): Sverige har jämnast inkomstfördelning (Sweden has the most equal income distribution). VelferdsBulletinen Nr 1 2000.SCB
- Jørgensen; J.M. (1998): Comparison of Income Variables between European Community Household Panel and Danish Statistical Registers. Report Statistics Denmark
- Mikulic, B. and Linden, G. (1999): The ECHP non-monetary variables as indicators of poverty and social exclusion in the European Union, Statistics Netherlands, October 1999.
- Nordberg, L., Hovi, M., and Penttilä, I. (1999): Measurement Errors in Social Surveys. Some Experiences from the EC Household Panel Surveys in Finland 1996. Paper "Recent Trends in Methodology for Social and Business Surveys 1999" IASS Pre-session workshop of the 52<sup>nd</sup> Session of the ISI.

Slijpen, G. and Dirven, H-J. (1999): The Validation of Income in the Dutch ECHP, Statistic Netherlands, May 1999

SPC 98/31/2: Recommendations on Social Exclusion and Poverty Statistics.

Statistics Sweden (1996): Living conditions Appendix 16. The Swedish Survey on Living Conditions. Design and methods

De Wreede, W.J. (1999): Social reporting: reconciliation of sources and dissemination of data. Task 1: Income Statistics in the EU Member States. Project report, Statistics Netherlands, November 1999.

### Documentation and comments concerning the data for each country

#### DENMARK

##### 1. General remarks

All figures have been calculated from register information, mainly the statistical version of the income register.

Two sets of tables have been produced - both covering 1994 and 1995 – differing only in family/household concepts. The concepts are:

1. D-family (see definition below)
2. Dwelling-households (often only called households)

When calculating equivalised income, persons in the **age 0-13** are considered as 'children'.

Only persons aged 16+ are included in table 4.

##### 2. Population concepts

###### D-family

A **family (called a D-family)** consists of one or two adults (16 years +) either married or living in consensual union with their possible children. This general rule is limited in the sense that each D-family can only contain one couple.

The more operational definition is:

1. All members of a family living at the same address according to the dwelling register at the end of the year
2. A couple is defined within this unit if they are 1) married/registered partners, 2) parents to the same person or 3) are of appropriate sex and age.
3. A single adult is defined as a person of age 16+ or one living with her/his own child.
4. Children to a person included under 3) belong to the family
5. At the same time only one couple or one single adult as mentioned in 2 and 3 above are allowed in a family.
6. If there is only one person in the family and this person is either younger than 16 or not fully taxable, the family is excluded

###### Dwelling-household

Further families are grouped to **households** defined as:

All persons/families living in the same dwelling except if there are more than 3 D-families in the dwelling. In that case the D-family is considered to be the household.



The more operational definition is:

1. All members of a household should live at the same address according to the dwelling register at the end of the year
2. If there are less than 4 D-families in the household this group of families constitutes the household
3. If there are more than 3 D-families in the household, each D-family is considered as the household
4. If there is only one person in the household and this person is either younger than 16 or not fully taxable, the household is excluded

## Persons

Because of the exclusion of specific households (point 4. above) the number of persons in the population differ slightly as shown:

	Number of		Number of persons	
	Households	D-families	Households	D-families
1994	2.413.585	2.590.109	4.244.554	4.239.284
1995	2.424.451	2.597.407	4.253.331	4.247.009

### 2. Income concepts

All income and expenditure components except have been set to 0 if negative, except:

- income from self-employment
- interests

#### 1.1 Emp. social contributions, covers payments to:

Labour market supplementary pension scheme

Comprehensive employer administrated pension schemes

#### 1.2.2 Remuneration for time not worked covers special payments to

look after children (not maternity leave)

education

sabbatical period

#### 1.3 Remuneration in kind, includes taxable value of

use of car

meals

telephone

dwelling

television

use of boat

### 2 Income from self-employment

No interests received or paid are included in the income.

Interests received and paid are shown under property income.

Negative values are allowed.

#### 4.1 Interests received

All interests received are included, both related to self-employment and others

#### 4.2 Interests paid

All interests paid, both related to self-employment and others. Not included in the total

4.7 Property gains (not included in totals)

4.8 Net imputed rent (not included in totals)

Estimated to 2,5 per cent of the cash value by January 1. of the year in question of the self owned dwelling

5.1.1.2.1 Unemployment benefits

Includes 5.1.1.2.1.1 some insurance related benefits when moving far away to change work and some special short-time education

5.1.1.2.2 Sick leave benefits

Includes maternity leave

5.1.1.2.3 Disability benefits (pension)

Social pensions to persons not old enough to receive old age pension.

Includes special benefits to compensate for handicaps

5.1.1.2.4S Social pension (old age)

General old age pension

5.1.1.2.4A Other pensions, includes

Partly retirement

Early retirement

Labour market supplementary pension

Private retirement arrangements

5.1.3 Other social benefits, includes

Benefits to look after sick or dying relatives

Rehabilitation benefits

Activating fugitives

Could be included in general social welfare (5.1.5.1)

5.2.1 Alimony

Not available on an individual level, but the total can be estimated to:

	Household	D-family
1994:	2.065	2.064
1995:	2.063	2.065

These are the value deducted from the income. The actual values are probably a little higher, because the state pays it to children if the parent due to pay does not.

6.1.4 Pension payments

Is equal to 1.1 Employers social contributions

6.2.1 Alimony payments

Deducted from taxable income

An overview of provided data is given in the following table also including an alternative where only the positive surplus of self-employment and of interests is included.

	Best national source		Self empl. and interests all positive	
	% of gross	Mill. Dkr	% of gross	Mill. Dkr
<b>No of households: 2.424.451</b>				
1 Compensation of employees	64,9	491890	64,7	491890
1.1 Emp. social contributions	0,6	4785	0,6	4785
1.2 Wages and salaries	63,9	484029	63,6	484029
1.2.1 Direct wages and salaries in cash	62,8	475527	62,5	475527
1.2.2 Remuneration for time not worked	0,8	6426	0,8	6426
1.2.3 Cash bonuses and gratuities	0,3	2076	0,3	2076
1.3 Remuneration in kind	0,4	3077	0,4	3077
2 Income from self employment	7,6	57307	8,0	60613
4. Property income	3,2	24111	3,2	24191
4.1 Interests received	2,4	17863	2,4	17942
4.1.1 Interests received from self employment	0,2	1893	0,2	1895
4.1.2 Interests received from elsewhere	2,1	15969	2,1	16047
4.2* Interests paid (Not included in totals)	-10,8	-81705	-10,7	-81785
4.2.1* Interests paid for self employment	-3,0	-22537	-3,0	-22537
4.2.2* Interests paid for other things	-7,8	-59169	-7,8	-59169
4.3 Dividends	0,7	5646	0,7	5646
4.6 Rental income	0,1	603	0,1	603
4.7* Property gains (not included in totals)	0,2	1458	0,2	1458
4.8* Net imputed rent (not included in totals)	2,0	15484	2,0	15484
5. Transfer income	24,3	184156	24,2	184156
5.1.1 Gross social insurance benefits	19,7	148846	19,6	148846
5.1.1.2 Gross insurance benefits	19,7	148846	19,6	148846
5.1.1.2.1 Unemployment benefits	4,4	33354	4,4	33354
5.1.1.2.1.1 Of which spc insurance benefits	0,4	3077	0,4	3077
5.1.1.2.2 Sick leave benefits	1,1	8081	1,1	8081
5.1.1.2.3 Disability benefits (pension)	3,7	27995	3,7	27995
5.1.1.2.4 Pensions	10,5	79416	10,4	79416
5.1.1.2.4S Social pension (old age)	6,4	48179	6,3	48179
5.1.1.2.4A Other pensions	4,1	31237	4,1	31237
5.1.2 Social assistance	4,0	30349	4,0	30349
5.1.2.1 Social Welfare	1,2	8725	1,1	8725
5.1.2.2 Education allowances	0,7	5241	0,7	5241
5.1.2.3 Family allowances	1,3	9547	1,3	9547
5.1.2.4 Housing allowances	0,9	6837	0,9	6837
5.1.3 Other social benefits	0,7	4961	0,7	4961
5.2.1* Alimony	0,0	0	0,0	0
<b>Gross income</b>	<b>100,0</b>	<b>757464</b>	<b>100,0</b>	<b>760850</b>
6. Transfer payments	-2,3	-17782	-2,3	-17782
6.1.1 Unemployment payments	-1,4	-10935	-1,4	-10935
6.1.4 Pension payments	-0,6	-4785	-0,6	-4785
6.2.1 Alimony payments	-0,3	-2063	-0,3	-2063
8. Taxes on income and wealth	-34,0	-257694	-33,9	-257694
Disposable income	63,6	481988	63,8	485374
* means that the figure is excluded from the totals				

### **3. Background variables**

#### **Education and social activity**

Classifications for education and labour/social economic activity are deduced from the main activity during the whole year.

#### **Dependent children**

All children below 16+ and persons aged 16-24, who have been classified as economically inactive and are living with at least one adult, are considered as dependent children.

### **FINLAND**

#### **General remarks**

The data source is Statistics Finland's annual Income Distribution Survey (IDS) 1995. IDS data 1995 is also the Finnish micro-data used in the Luxembourg Income Study database and in the Euromod project.

IDS is a sample survey. Both interviews and registers are used in primary data collection. Most of the income data comes from administrative records. Interviews are used to obtain appropriately defined households, to collect necessary information for some classification variables (activity, occupation etc.), to augment register data and to allow more flexibility in using register data.

#### **On the income concept**

Both interview data and register data are used to derive appropriate income concepts. Over 90 % of total income information is derived from registers, however. The proportion is close to 100 % if only cash income (excluding e.g. imputed rent) is considered. The quality of register income data is considered to be superior to interview data, due to many available register sources, subsequent cross-checking and the fact that there is practically no item non-response.

For the purposes of the comparison projected, the following changes were made to the income concept used in the national source<sup>2</sup>:

Imputed rent and other non-cash items are excluded from gross and disposable income. However, fringe benefits (tax values) and taxes paid on them are included in gross and disposable income.

Realised capital gains and taxes paid on them were removed from income. Table below shows the effect of realised capital gains on the Gini-coefficient and mean and median incomes in 1995<sup>3</sup>:

---

<sup>2</sup> More about the income concept and available income data in the Finnish Income Distribution Survey can be found from the inventory sheet on income delivered to Eurostat, and from Wreede's (1999) report "Income Statistics in the EU Member States".

<sup>3</sup> In the years 1996-1999, the impact of realised capital gains on central tendency measures and on income dispersion was much bigger than in 1995.

<b>IDS 1995</b>	<b>Mean household income, FIM</b>	<b>Median household income, FIM</b>	<b>Gini<sup>4</sup></b>
<b>Including capital gains</b>	121 619	106 853	0.217
<b>Excluding capital gains and taxes paid on them</b>	119 923	105 701	0.214

The classification of transfers received is somewhat different from the current practise in the (national) Income Distribution Statistics. In the tables, unemployment pensions are included in unemployment benefits, and not in pensions<sup>5</sup>. Disability pensions are not included in pensions.

### **Remarks on the tabulations**

In table 3, the income structure is calculated from household (non-equivalent) income. In all other tables, income is equivalent income and observation unit is person.

Household size, type and tenure status are household level variables, other classification variables are person level variables.

Modified OECD scale was used in the calculations.

The total population was about 5 million people in 1995. However, most of the tables have been calculated for persons at least 16 years of age and some (e.g. occupation, economic activity). There are also some additional restrictions which should be taken into account.

Only figures for 1995 are provided.

### **Notes on classification variables used in the project**

#### **Economic activity:**

Age restriction: people aged 16 or more, with data on industry. "Industry" is the industry of an individual's primary job (longest duration or highest income) during 1995. See "occupation" for more information.

#### **Educational attainment**

Age restriction: people aged 16 or more.

This information is based on educational register on completed education.

In the educational register, people with no education completed are classified together with primary and lower secondary education. In the tables, the row "primary and lower secondary education" therefore includes also people without education.

---

<sup>4</sup> Person weights, modified OECD scale.

<sup>5</sup> Under certain conditions, 60 years or older unemployed person is entitled to so called unemployment pension. It is paid on the basis of unemployment but according to pension legislation, and calculated in the same way as invalidity pensions.

## **Labour status**

Age restriction: people aged 16 or more.

Labour status is derived from the national socio-economic classification. Reference period is one calendar year (1995). To give an example, an unemployed person is an economically inactive person, who was unemployed 6 months or more in 1995.

## **Main activity status**

Age restriction: people aged 16 or more.

Activity status is derived and adapted from national socio-economic classification. It refers to main economic activity during the calendar year 1995.

"Permanently disabled" does not appear in the IDS classifications. For the purposes of this exercise, persons who were economically inactive and who received disability pension (register data) during 1995 were classified as "disabled". "Permanently disabled" thus means persons who are retired because of disability to work. This is in accordance with Labour Force Survey practices, it seems, and the total number of disabled persons defined this way roughly corresponds with the LFS numbers. (Main activity status used here does not in general reflect LFS practices).

## **Occupation**

Age restriction: people aged 16 or more, with data on occupation.

An individual may have been classified as economically inactive (main activity status, labour status), yet still held a primary job (possibly for a very short time) during a year. There were estimated 2,4 million individuals with occupation in the data and these were used in the calculations. Total population was about 5 million, slightly under 2 million of them were employed or self-employed in 1995.

Sample size was too small to disaggregate persons in "armed forces" into quintiles.

## **Country of birth**

This information is available in the central population register. It has not been linked to the IDS95 sample persons. The number of observations in groups other than "reference country" would in any case be very small. This information is available if truly needed.

## **Marital status**

Age restriction: people aged 16 or more.

This information is based on population register and refers to the 'de jure'-concept.

People living in consensual union ("common law") are classified as not married. "Not married" are put under "single" in the table but they are not households with one person.

Marital status according to 'de jure'-concept is not a very sensible demographic variable and this variable has not been used in the (national) Income Distribution Survey.

There were not enough "separated" in the sample, so their figures were left out of the table.

## **Tenure status of household**

This is a household level variable based on interviewed data.

## **Household type**

Dependent children: 0-15 years old or 16-24 years old economically inactive child of household head or spouse living with his/hers parents.

## **Some features of the dataset**

### **Household definition**

Household definitions in IDS, the Finnish ECHP and the Household Budget Survey are similar. Following is an excerpt from IDS Robustness Assessment Report 1998:

"Household consists of persons who live together and have their meals together or otherwise use their income together (income sharing) in private households. Persons living permanently in institutions (hospitals, prisons and so forth) are excluded.

People living in other location belong to the household if they participate in the acquisition of income. People conducting military service or equivalent belong to the household. Students living on their own or in other location do not belong to the household if they live mostly on their own income or on a student loan. Students (living together) in dormitories etc. each form their own household if they are not married or are not otherwise cohabiting.

The head of the household (or reference person) is mostly the person with highest income. It is derived using income data."

### **Sampling**

Sample design is two-phase stratified PPS design. A rotating panel design is used so that each household is in the sample for two consecutive years. The "new" panel is usually CAPI and CATI interviewed (Blaise). In the next year the same households (old panel) are mostly CATI interviewed.

First a large master sample of about 30,000 - 40,000 individuals (target persons) is taken from Central Population Register. Sampling method is usually systematic sampling. After this dwelling units are constructed by adding all other people living in the same address with the target person. At this stage the inclusion probability of a household depends on the number of persons over 15 years of age in the dwelling unit (PPS sampling).

This master sample is then merged with the most recent tax register and a preliminary socio-economic class (13 classes) is derived for each individual. Socio-economic class of a dwelling unit is that of the reference person (person with highest income). The final sample is then drawn using stratification according to socio-economic class of the reference person so that each household is included in the sample via this reference person. Sampling rates differ a lot from one stratum to another. Farmers, entrepreneurs and high-income wage-earner households have the largest sampling fractions.

## Non-response

The survey design is two-year rotating panel design. Therefore the response and non-response rates must be calculated separately. All figures are unweighted:

	Gross sample	Over-coverage	Net sample	Non-Response	Final data	Response rate
<b>New panel</b>	5732	81	5651	1383	4268	75.5
<b>Old panel</b>	5255	58	5197	203	4994	96.0
<b>Total</b>	10987	139	10848	1586	9262	85.4

## Weighting

Basic weights are the inverse of the inclusion probabilities. Preliminary non-response correction is then conducted to these weights using sample information (response rates in each of the 13 strata). These non-response weights are calibrated with SAS-macro CALMAR to improve estimates of the population structure and the income totals and to reduce non-response bias.

In 1995 weights were calibrated to match the following marginal distributions. Population structure: number of persons by sex and age in five year bands, regional distribution of dwelling units (13 classes), size distribution of dwelling units (8 classes); income totals: taxable income and wealth, entrepreneurial income, farm income, forestry income, property income. Range of weights were not constrained. Population marginal distributions for population structure were taken from the master sample, income totals were taken from tax totals.

## Editing

Following is an excerpt from IDS 1998 Robustness Assessment report (compiled for Euromod-project) which applies to 1995 data as well:

*"4.7 What other editing has been employed, affecting over 5% of the sample? How large an impact is this thought to have on measured incomes? What editing and/or checking takes place at the data-collection stage?"*

None that affects over 5% of the sample. However, the following edits have impact on measured income. Wages and salaries are edited by checking the consistency of register data. Data on income from forestry is edited by checking the consistency of register data and interview data. Data on loans and mortgage are checked and edited using available register data.

There are numerous checks in our electronic Blaise-questionnaire but interviewers do not perform editing. Editing is done at data processing stage by comparing interview data with register data. Classification variables are subject to much more editing than income variables.



To give an example, in the interview each person is asked about his/her activities during the year (employed, self-employed, unemployed, retired etc.). These data are checked with help of register data on activity and on income and interview data is edited if inconsistencies are found. For example, we check the months person has reported to be unemployed with register data on basic unemployment benefits (days received and amount received) and perform editing if necessary."

## FRANCE

Tables have only been produced for the year 1996 (this is the first year of the new 'Fiscal Income' Survey which is the basis for this table). All tables (except table 3) have been produced using the individual (children included) as unit. Households whose reference person is a student or in military service have been excluded (households whose income is negative have also been excluded).

Some definitions:

**dependent child** = age < 16 years old or 16 ≤ age ≤ 24 and unemployed or inactive  
others = adult

### Income components

Unemployment benefits are included in compensation for employees.

Private transfers received: alimony received is included in 'Pensions'

Home production and casual secondary activity: Casual secondary activity included in property income.

The Fiscal Income Survey (FIS) used for the comparison is based on the Labour Force Survey (LFS). Tax returns from tax files are linked to each interviewed person in the LFS.

## NETHERLANDS

Tables are based on the Income Panel Survey (IPO) data which is considered to be the best source of household income data. In addition it contains a number of non-monetary variables which describe demographic and socio-economic characteristics of households and persons. For the tabulation purposes, the data from two subsequent survey waves are used: namely the 1994 and 1995 IPO-survey data.

The Dutch Income Panel Survey (IPO) is a longitudinal administrative panel existing since 1989. The sampling frame is a register of fiscal numbers, basically a copy of the Population Register. This register of fiscal numbers is the basis of the fiscal administration. Most of the data is obtained from the fiscal administration. Data on rent subsidies are obtained from the Ministry of Housing. All data are linked by fiscal number and are collected throughout the year during the year following the year covered.

The sample size is about 75,000 households, i.e. 220,000 individuals. The total population of the Netherlands on 1st January 2000 was 15.9 million individuals and 6.8 million private households. A simple random sample of individuals of 0.61 percent of the population is selected. This is the nuclear sample. These individuals are followed in the panel. Each year 0.61 percent of all new-born and immigrants is added to the sample. By doing so, the effect of panel attrition is counterbalanced. The complete sample consists of all persons belonging to the households of the individuals who belong to the nuclear sample. There are approximately 1,300 households without income in the IPO dataset. Often this will be due to missing data. Non-response is not higher than 2 percent.

For cross-sectional use of the complete sample a standard set of weights is available. Its purpose is to take into account the sampling design and to assure that the total number of weighted individuals and households corresponds to national totals. As a starting point inclusion weights are derived. These are equal to 1/(size of household sampling fraction). The inclusion weights are adjusted such that the weighted number of individuals and households corresponds to population totals. For individuals stratification according to sex and age (10-year classes) is used. Households are stratified according to size (1, 2 and 3+) and age household head (20-year classes). A linear weighting process is used. One weight per household.

The measurement period for income is the distribution of annual income. The socio-economic category of persons and the main source of income of households are based on the largest income component (throughout the year). Household type and age of the person (head) are based on the situation at the end of the year. The definition of disposable income was coordinated in 1990 with the definitions of expenditures in the Household Budget Survey and Social Economic Panel Survey.

### **Units of the analysis, population considered and other limitations**

The observation unit in the IPO-based tables for Netherlands is *person*. This is also the case when household characteristics are observed (tenure status, household type, household size, etc.). In these cases household characteristics are attributed to persons (no age limit).

Population in the tables considers all *persons in private households*. Persons living in institutional households (prisons, military barracks, sanatoriums, special institutions for old-age people, etc) are not taken into consideration.

The equivalence scale used is the *OECD modified scale* with weight 1 for first adult person in the household, 0.5 to each subsequent person aged 14 or more, and 0.3 to each child aged less than 14.

Observation years are *1994 and 1995*.

Figures on monetary variables are given in *national currency* (guilders).

### **Income and income components' definition**

Before making tabulations from an alternative source of income data (IPO), the income concept used in the source had to be made comparable with that of ECHP. The income measure used in the ECHP is the *net (after tax) monetary income* received by the household and its current members during the survey reference year. This includes all monetary components enumerated in the ECHP, namely income from work (employment and self-employment), non-work private income (capital income, property/rental income, private transfers to the household), pensions, scholarships, social transfers and benefits, and public schemes for housing costs (housing allowances and subsidies). Indirect social transfers, receipts in kind, imputed rent for owner-occupied accommodation or housing costs and income from private use of the company car, are not included.

Net monetary income is not a regular concept in the IPO. The concept usually used by Statistics Netherlands is annual *disposable income*. Disposable income equals net monetary income minus 1. premiums paid by employees for health insurance; 2. Paid mortgage interest; 3. paid ground rent for the owned dwelling; plus income in kind (private use of the company

car<sup>6</sup> and imputed rent<sup>7</sup>). In order to make tabulations of IPO income data which compare with that of ECHP, net monetary income was calculated in the IPO (see table A)<sup>8</sup>.

Table A. Net monetary and disposable income

<b>Net monetary household income</b>	
-	Premiums paid for health care insurance
-	Paid mortgage interest
-	Paid ground rent
+	Income in kind - private use of the company car
+	Imputed rent
=	<b>Disposable household income</b>

The calculated net monetary income in the IPO correspond nicely to that in the ECHP. However, there are still some *slight differences* between the two practical operation of the 'net income' concept, that in the ECHP and in the IPO. In the later one some posts on private income are missing (IPO doesn't measure them): *1. parental financial support received by children studying away from parents' home 2. alimony for children received by ex-partner*. The average amount of the missing components is not very large comparing to average net household income in the country, although for some groups of households (students, divorced single-parents) it may mean that a significant fraction of income is not measured in the IPO. This has to be taken into consideration in comparisons of outcomes (tabulations) from two sources (IPO and ECHP) and by explaining (possible) differences in outcomes.

### Definitions of other (non-monetary)variable used in tabulation

Tenure status: The variable as defined in the IPO consists of the following two categories 1. 'Owners/occupiers' and 2. 'other'. The owners/occupiers are identified in the survey by looking at specific real estate taxes they have to pay on yearly. In the IPO survey it is not possible to distinguish specific sub-groups such as 'tenants', 'persons for whom employer provides for free accommodation' or groups under some other forms of tenure.

Marital status : this is 'de jure' status at the end of the reference year (31 December). Category 'married' includes people living in consensual union (approved by authorities). Children below 18 living with parents are coded as 'never married'.

Age: Number of completed years of life at the end of the reference year.

Household type/size: Situation at the end of the reference year. Category '*dependent child*' (used in distinguishing household types in table 4) is defined as a child aged less than 18 living with parents.

<sup>6</sup> Employees who can use the company car for their private purposes enjoy an income in kind. According to the existing methodology, the income from this source corresponds to 20% of the catalogue value of the vehicle. Under the catalogue value it is understood the price of the brand new vehicle in the year of purchase.

<sup>7</sup> The rented value of the dwelling of owners/occupiers is determined on the basis of the estimated market value of the dwelling. Income from the own dwelling is then calculated when maintenance costs and interest paid for the mortgage are subtracted from the determined rented value.

<sup>8</sup> This strategy was chosen because net income is the concept currently used by Eurostat in official publications based on the ECHP. Moreover, the current design of the ECHP does not allow the derivation of disposable income.

Labour market status : The variable categories (1. Employee 2. self employed 3. inactive person receiving unemployment benefits and 4. other inactive) are defined by using information on the main source of personal income. The persons having salary/wages as a main source are considered as *employee*; persons having profits as the main source of income are considered *self-employed* and those having unemployment benefit(s) as main source of income are considered as the *inactive with unemployment benefit* employed; persons with other sources of income are categorised in the group *other*.

Region: NUTS1 and NUTS2 regions according international classification.

### Cross-tabulation of income data at regional (NUTS2) level

The alternative source of data is expected to be suitable for making estimates on regional level (NUTS1<sup>9</sup> and NUTS 2). Dutch IPO – survey contain variables on the region the household is living in which means that variable on household income can be cross classified by one of the two variables on region. Also the number of sample cases per NUTS2-region is large enough to produce quite reliable estimates of mean income on the regional level (see: Table 4a in section 8 of the report) or to produce figures on distribution of persons in the NUTS2 region (province) by quintile-groups ( see: Table 4b in section 8 of the report). As Table-B shows, the lowest number of cases is found for NUTS2 region Flevoland (3686 cases) and the largest for South-Holland (44750 cases).

**Table B Population in the Netherlands by province (NUTS 2), 1995**

Province NUTS 2	Weighted and grossed-up		Unweighted (sample cases)	
	Number of persons	Percent	Number of person	Percent
Groningen	545617	3,6	7162	3,4
Friesland	601708	4,0	8489	4,0
Drenthe	448323	3,0	6069	2,9
Overijssel	1032301	6,8	15031	7,1
Flevoland	270047	1,8	3686	1,7
Gelderland	1833943	12,1	26608	12,6
Utrecht	1045819	6,9	14617	6,9
Noord-Holland	2401214	15,9	32901	15,5
Zuid-Holland	3244702	21,5	44750	21,1
Zeeland	360350	2,4	5227	2,5
Noord-Brabant	2240267	14,8	31908	15,1
Limburg	1101119	7,3	15388	7,3
TOTAL NL	15125411	100,0	211836	100,0

The multi-dimensional cross-classifications as proposed in Interim report (Table 4) are not feasible at NUTS-2 level without jeopardising the quality of estimates. In these cross-classifications (e.g. age by quintile group by province or labour market status by quintile by province). The number of sample cases for province Flavoland is small and does not allows to make reliable estimates based on the proposed three-dimensional cross-classification. In many cells the number of sample cases is below 50 (Table-C).

<sup>9</sup> There are four NUTS1 regions in the Netherlands and twelve NUTS2 regions. Regions at NUTS1 level contains at least two regions at NUTS2 level.

As to these multi-dimensional cross-classification at NUTS1-level, the number of sample cases per cell (cell-size) does not appear to be an obstacle for making reliable estimates.

**Table C** Number of sample cases in the 1995-Netherlands Income Panel Survey :  
Province (NUTS 2) Flevoland

1995		Quintiles of income distribution (country level)				
	cases	I	II	III	IV	V
<b>Flevoland</b>	3686	604	685	834	769	794
<b>Age</b>						
0-15	962	244	193	242	176	107
16-24	523	89	110	100	119	105
25-49	1527	210	234	335	339	409
50-64	384	<b>38</b>	<b>43</b>	74	97	132
65 +	290	<b>23</b>	105	83	38	<b>41</b>
<b>Marital status</b>						
Never married	1732	346	334	396	339	317
Married	1757	220	299	393	410	435
Widowed	92	<b>12</b>	<b>31</b>	<b>25</b>	<b>9</b>	<b>15</b>
Divorced	105	<b>26</b>	<b>21</b>	<b>20</b>	<b>11</b>	<b>27</b>
<b>Labour market status</b>						
Employees	1581	144	230	333	404	470
Self-employed and other active	214	<b>32</b>	<b>25</b>	<b>29</b>	<b>43</b>	85
Inactive persons receiving unemployment benefits	125	54	<b>18</b>	<b>16</b>	<b>19</b>	<b>18</b>
Other inactive persons	1766	374	412	456	303	221
<b>Tenure status of household</b>						
A member of HH is owner of housing unit	2119	143	282	547	533	614
A member of HH is tenant of housing unit	1567	461	403	287	236	180
Occupying all or part of a housing unit under some other tenure						
<b>Household type (ECHP)</b>						
1 adult without dependent children	166	<b>26</b>	<b>47</b>	<b>40</b>	<b>21</b>	<b>32</b>
2 adults without dependent children	724	50	100	138	148	288
3 or more adults without dep. children	432	<b>17</b>	<b>40</b>	79	126	170
Single parent with dependent children	70	<b>47</b>	<b>13</b>	<b>8</b>	<b>2</b>	<b>0</b>
2 adults with dependent children	1630	327	310	408	372	213
3 or more adults with dep. children	664	137	175	161	100	91
<b>Household size</b>						
1	100	<b>26</b>	<b>47</b>	<b>40</b>	<b>21</b>	<b>32</b>
2	744	62	104	140	150	288
3	663	84	84	126	198	171
4	1072	144	188	300	268	172
5+	1041	288	262	228	132	131

## **The availability of longitudinal variables at micro-level**

As already mentioned under section 2 of the report, the data tabulated come from a source (IPO) which has a longitudinal character. This means that all variables listed in tables can become available as longitudinal variables. It enables researchers to carry out more complex analyses such as those on dynamics of income, on duration of certain income position, on income mobility, on labour market mobility, etc. In this aspect the IPO can be seen as a very good replacement for the ECHP.

## **Some other remarks on income data from best national source (IPO)**

The IPO definition of household disposable income contains also a couple of 'in kind' components which are not taken into the income definition as obtained in practice in the ECHP. These are the following components:

Income from private use of the company car: Employees who can use the company car for their private purposes enjoy an income in kind. According to the existing methodology, the income from this source corresponds to 20% of the original price of the vehicle. The original price is taken to understand the price of the brand new vehicle in the year of purchase.

Income from (the rented value of) the own dwelling: The rented value of the dwelling of owners/occupiers is determined on the base of the estimated market value of the dwelling and on the base of the housing indicators (e.g. location, number of rooms, type of dwelling, etc.. Income from the own dwelling is then calculated when maintenance costs and interest paid for the mortgage are subtracted from the determined rental value.

These components are not taken into consideration when constructing net income from IPO data to be compared with data on net income from ECHP. However, one should bear in mind that IPO offers more information on income-in-kind components which could be included in the future income statistics of the EU, once ECHP stops.

## **NORWAY**

Tables 1-3 are based on the Income Distribution Survey while table 4 is extracted from the Survey on Living Conditions (see further description in the Interim progress report of 10 August 2000). Table 4 is given only for 1994 as it has not been possible to produce the same data for 1995.

Data for country of birth and occupation code according to ISCO-88 is not available for 1994.

### **Income concepts**

Disposable income does not include imputed rent and interest payments have not been deducted.

Wages and salaries also include certain benefits in-kind (e.g. company car, free telephone etc.).

Taxed realised capital gains are included in the definition of income. The inclusion of capital gains in disposable income makes little impact on the income distribution for the years in question (e.g. 1994 and 1995). We will illustrate this point by presenting the decile distribution of net disposable income for 1994 (cf. table 1 in the report), where capital gains are included and excluded from the income concept. As can be seen, capital gains had only a minor impact on the tails of the distribution. However, for later years, for example 1996 and 1997, the story may be different because of a substantial rise in capital gains in Norway.

**The distribution of net equalised disposable income in Norway. 1994. Percent of total income**

Decile	Including capital gains	Excluding capital gains
1	3,8	3,6
2	5,9	6,0
3	7,1	7,1
4	8,0	8,1
5	9,0	9,0
6	9,8	9,9
7	10,7	10,8
8	11,9	11,9
9	13,4	13,5
10	20,4	20,1
All	100,0	100,0

In addition to income and wealth taxes alimony payments and mandatory pension premiums have been deducted from gross income.

If income is less than zero (both net and gross) then income has been put = zero.

**Equivalence scale**

Children are defined in the calculations of equivalence scales, as persons aged 0-16 and not 0-13.

**Other variables**

Employed: Persons with at least 10 hours working time. Employment has highest priority if the person also has other types of status.

The classifications for "status in employment", "main activity status" , "economic activity" and "educational attainment" are based on the person interviewed, not the person having the main income. It should be noted that this fact might influence the comparability of the income distribution in relation to those background variables, and steps have been taken to improve this situation by getting more complete information for spouse/partner, partly from administrative sources, partly from interview.

Tenure: as owners are also considered part owners in the housing co-operatives and shareholders in housing stock company.

Household type: Dependent children are members of the household 0-15 years of age.

**Household definition**

In the IDS a household is defined as one or more individuals living together and having common board.

A household interview is conducted to establish household composition. Non-response households are included in the survey, but missing data on actual household composition is substituted with information on "family" composition, derived from the Central Population Register.

Head of household is the person with the highest gross income. In cases where there are no differences in the level of income, the oldest person is considered household head.

### **Coverage**

The Income Distribution Survey covers all persons *including* people living in institutions (except long-time prisoner and persons committed to institutions for more than 6 months due to mental illness or alcoholism/drug abuse). People with foreign citizenship are included if they are registered in the Population Statistics System. They are normally registered here if they have a work and residence permit. Children born during the year are included, so also people that died after 1 October in the reference year. The sampling frame is the *Central Population Register*.

### **Weighting**

A standard set of weights is developed to produce population figures. At first the sample is post-stratified in respect to age (5-year classes) and according to population statistics. Thereupon the weights are adjusted by using a method of calibration. This method, in brief, constructs new weights by the use of regression technique in order to produce estimations that for some variables are identical to known totals (from registers). The income variables used for calibration (i.e. those variables where the estimations are identical to known totals) are:

- Employment income, wages and salaries
- Employment income, self-employed in primary sector
- Employment income, self-employed in other industries
- Pensionable income, basis for future social security benefits
- Property tax

All the known register totals were collected from the Tax register for personal tax payers.

## **SWEDEN**

### **Tables**

The tables are given for 1996 and 1997 and are based on the Survey on Living Conditions (ULF). The different categories are based on the sampled person in the household (In ULF persons are sampled).

### **Income concepts**

Several alternative for handling capital gains and interest are calculated:

- A. Including capital gain, excluding paid interest
- B. Excluding capital gain, including paid interest
- C. Capital gain has been excluded as well as the tax from it. Paid interest is here regarded as consumption and is not deducted from the income, but no recalculation of the tax has been done (this alternative is considered to be most comparable to the data provided by the other countries).



The effect of these alternatives for 1997 are the following on income distribution:

	Alt. A		Alt. B		Alt. C	
	%	Mean (1000 Skr)	%	Mean (1000 Skr)	%	Mean (1000 Skr)
I Lowest	2,4	35	1,8	22	2,1	28
II	5,4	77	5,5	69	5,6	75
III	6,6	94	6,9	87	6,8	92
IV	7,6	109	7,9	99	7,9	107
V	8,6	123	8,9	112	9	121
VI	9,6	138	10	125	10	135
VII	10,7	154	11,1	139	11,1	150
VIII	12,1	174	12,5	157	12,5	169
IX	14,1	203	14,5	181	14,5	195
X	23	330	20,7	259	20,6	278
All persons	100	144	100	125	100	135
Median		130		118		129

The following differences are observed for 1997 on component level:

	Alt. A		Alt B		Alt. C	
	% of gross	Bill. Skr	% of gross	Bill. Skr	% of gross	Bill. Skr
1. Compensation of employees	60,1	754,1	66,7	754,1	62,3	754,1
1.3. Remuneration in kind	0,9	11,2	1,0	11,2	0,9	11,2
2. Self-employment income	2,4	29,8	2,6	29,8	2,5	29,8
3.1+3.2 Home production and casual secondary activity	0,2	2,6	0,2	2,6	0,2	2,6
4. Property income (- imputed rent)	7,7	97,0	-2,4	-26,8	4,4	53,7
4.8. Imputed rent	13,5	169,8	14,8	167,8	14,0	169,8
5. Transfer income	29,6	371,0	32,8	371,0	30,6	371,0
5.1.1 Gross social insurance benefits	23,2	290,7	25,7	290,7	24,0	290,7
5.1.1.2.1 Unemployment benefits	3,7	46,8	4,1	46,8	3,9	46,8
5.1.1.2.4 Pensions	17,8	223,1	19,7	223,1	18,4	223,1
5.1.2 Social assistance benefits	6,4	80,2	7,1	80,2	6,6	80,2
5.2 Private transfers received	0,0	0,1	0,0	0,1	0,0	0,1
Gross income	100,0	1254,0	100,0	1130,5	100,0	1211,0
6 Transfer payments	4,3	53,5	4,7	53,5	4,4	53,5
8. Taxes	28,8	360,7	31,9	360,7	29,8	360,7
Net disposable income	67,0	840,0	63,4	716,4	65,8	797,0

The calculation of property income, gross- and net disposable income does not include imputed rent.

Wages and salaries also include certain benefits in-kind (e.g. company car).

### Equivalence scale

OECD modified (0-13, 14 +)

### Population

Age group 16-84

Children 16-24 years had to be eliminated from the table as these would have been counted as separate households and thus affected the income distribution.

### Marital status

"De jure" concept is used.

## UNITED KINGDOM

Tables have been produced for the following surveys:

General Household Survey (1994, 1995)

British Household Panel Survey (1994, 1995)

Family Resources Survey (1994, 1995).

Data relating to the first two have been generated within the Office for National Statistics, the third within the Department of Social Security.

### General Household Survey 1994, 1995

Adults = persons aged 16 years or over.

Equivalisation process: due to data limitations children are defined as persons aged 0-16 years and not 0-13 years. Dependent children are persons aged under 16 years, or single persons aged 16 years but under 19 years and in full time education.

#### Table one

Equivalised income data. Net disposable income does not include imputed rent and types of income in kind. Definition does include benefits total, other net income, regular income, take home pay, self employment pay, income from second job, net interest from investments, other pay, minus direct taxes and direct national insurance contributions.

#### Table two

Equivalised income data. Gross income includes earnings, benefits, pensions, dividends, interest and other regular payments.

#### Table three

Unequivalised gross income data. The definition of the specified components have attempted to follow the ones applied in the proposed "income methodology" from de Weede (1999).

However please note:

- 5. Transfer income - includes child benefit, income support, national insurance retirement pension, old age pension, unemployment benefit, national insurance sickness benefit, disability living allowance, invalidity pension, severe disablement allowance, family credit, widow's pension, war disablement pension, industrial disablement pension, attendance allowance, invalid care allowance, disability working allowance, occupational pensions, private pensions, regular redundancy payments, government training schemes, educational grants, regular payments from friends, alimony. **\*Does not include social contributions paid by institutions or housing allowances.**
- 5.1.1 Gross social insurance benefits - includes child benefit, income support, national insurance retirement pension, old age pension, unemployment benefit, national insurance sickness benefit, disability living allowance, invalidity pension, severe disablement allowance. **\*Does not include social contributions paid by institutions.**

Table Four

Net equivalised mean disposable income data (with horizontal percentage distributions). Due to data limitations economic activity data is unobtainable.

- Marital status - cohabiting couples and same sex couples have been included within the married code.
- Main activity status - compulsory military service data not applicable. ILO definition of unemployment used. Other codes translate as follows: permanently disabled (permanently unable to work); fulfilling domestic duties (keeping house); other inactive person (other economically inactive person).
- Labour status - "in labour force" category has a very small sample. Coding used as follows:

<b>Eurostat</b>	<b>GHS [var destilo]</b>
1.1 In Labour force	Government scheme, employer, college based
1.1.1 Employees	Employee full, part time, hours
1.1.2. Self-employed	self employed
1.2 Unemployed persons	ILO definition of unemployed
2 Not in labour force +A124	Economically inactive

- Occupation - 100 includes farmers (employers and managers). In years 1994 and 1995 the skilled agriculture and armed forces categories has very small samples. Approximate coding used as follows:

<b>Eurostat</b>	<b>GHS [var sesead]</b>
100 Legislators, senior officials and managers	Employers: large, managers: large, employers: small, managers: small, prof:self emp, prof: employee, farmers employers and managers
200 Professionals	non-manual, non-manual foreman
300 Technicians and associate professionals	Manual: foreman/service workers
400 Clerks	junior non-manual
500 Service workers and shop and market sales workers	Personal service, own account non-professional
600 Skilled agriculture and fishery workers	Farmers own account
700 Craft and related trades workers	Skilled manual
800 Plant and machine operators and assemblers	semi-skilled manual
900 Elementary occupation	Unskilled manual, agriculture workers
000 Armed forces	armed forces

- Household type: dependent children are persons aged under 16, or single persons aged 16 years but under 19 years and in full time education.
- Education section has higher respondent bias than others- only 53% response rate in 1995 and 57% in 1994. Coding as follows:

<b>Eurostat</b>	<b>GHS</b>
None	None
Primary and lower secondary education (ISCED, 1 and 2)	GCSE O level equivalent, CSE grade 2-5,
Upper secondary or post sec. Education. ISCED 3)	GCSE A level equivalent
Tertiary education (ISCED, 5+6+7)	Degree or equivalent, higher degree

- Tenure status of household. Coding as follows:

Eurostat	GHS
A member of the household is owner of housing unit	Owns outright, buying on a mortgage
A member of HH is tenant of housing unit	Rents from LA/HA
Occupying all or part of a housing unit under some other tenure	Rents other

### British Household Panel Survey 1994, 1995

Adults = persons aged 16 years or over.

Equivalisation process: children are defined as persons aged 0-16 years and not 0-13 years.

#### Table one

Equivalised income data. Net disposable income does not include imputed rent and types of income in kind. Definition does include income from employment, self-employment, investments and savings, private and occupational pensions, other market income, cash social security and social assistance receipts and private transfers (e.g. maintenance) minus direct taxes (income tax, national insurance contributions) and occupational pensions contributions. Does not include earnings from a second job.

#### Table two

Equivalised income data. Gross income includes earnings, benefits, pensions, dividends, interest and other regular payments.

#### Table three

Unequivalised gross income data. The definition of the specified components have attempted to follow the ones proposed "income methodology" from de Weede (1999). However please note:

- 2. Self employment income - is likely to under estimate the total due to very small sample size
- 5.1.1- gross social insurance benefits - all receipts from state benefits (including national insurance retirement pensions). This includes pensions, widow's pension, widowed mother's allowance, severe disablement allowance, industrial injury allowance, attendance allowance, mobility allowance, invalid care allowance, war disability pension, unemployment benefit, income support, child benefit, family credit, maternity allowance, housing benefit, council tax benefit, any other state benefit. \* **Does not include social contributions paid by institutions.**
- 5.1.1.2.1 - unemployment benefit is likely to underestimate the total. This is due to data limitations in that some unemployment benefit claims are included together with income support claims (and not included in this calculation).
- 5.2 - private transfer received - educational grants, trade unions, alimony, payments from family member not living there, foster allowance, sickness or accident insurance and any other regular payment.

#### Table Four

Mean equivalised net disposable income data (with horizontal percentage distributions). Due to data limitations economic activity data is unobtainable.

- Marital status - those classified as never married re-coded to single.
- Main activity status - compulsory military service category not applicable.
- Labour status - due to data complexity we are unable to calculate "in labour force" category. Employees are classified as employed.

- Occupation - 100 includes farmers (employers and managers). Sample sizes small overall but particularly for the armed forces. For coding frame see above.
- Household type: dependent children are persons aged under 16 years, or single persons aged 16 years but under 19 years and in full time education.
- Country of birth - we were unable to supply country of birth in break downs required. The number of respondents in categories other than reference country is very, very small. The information is available if needed.
- Tenure of household. The classification is as follows:

<b>Eurostat</b>	<b>BHPS</b>
A member of the HH is owner of housing unit	Owns outright, owned with mortgages
A member of HH is tenant of housing unit	Rents from employer, rent privately.
Occupying all or part of a housing unit under some other tenure	Other rent, local authority rent, health authority rent

- Education coding used as follows:

<b>Eurostat</b>	<b>BHPS</b>
None	None
Primary and lower secondary education (ISCED, 1 and 2)	GCSE Os, CSEs
Upper secondary or post sec. Educ. ISCED 3)	GCSE A level equivalent, commercial equivalent, other qualification, apprenticeship,
Tertiary education (ISCED, 5+6+7)	Degree, higher degree, teaching qualification, nursing qualification, other higher qualification

### **Family Resources Survey 1994, 1995**

Adult = person aged 16 years and over except 16-18 year olds in full time non-advanced education; all adults in the household are interviewed.

Equivalisation process: Has been applied according to ages of individuals within households.

#### **Table One**

Net equivalised disposable income includes income from all sources for all individuals in households with the exception of imputed rent and most types of income in kind. The definition does include income from employment (all jobs), self-employment, investments and savings, private and occupational pensions, other market income, cash social security and social assistance receipts (both state and private benefits/income replacement insurance payments) and private transfers (e.g. maintenance).

The definition does not include direct and local taxes (income tax, national insurance contributions and council tax) and transfer payments (occupational/private pension payments, maintenance payments, student loan repayments and premiums for income replacement insurance/private benefits).

#### **Table Two**

Gross equivalised income data. Gross income includes income from all sources for all adults and children in the household with the exception of imputed rent and income in kind as detailed above.

Table Three

Unequivalised gross income data. The UK HBAI definitions roughly map as follows:

<b>Eurostat</b>	<b>HBAI</b>
1. Compensation of Employees	Earnings from employment
1.3 Remuneration in kind	Not really covered in HBAI with exception of luncheon vouchers
2. Self employment income	Self employment income
3.1/2 home production + casual secondary activity	Home production not included in HBAI, casual secondary activity is if it relates to income from casual employment but figure not given separately here
4. Property Income – Imputed rent	Is included in HBAI under other income
4.8 Imputed rent	Is not included in HBAI
5. Transfer Income	Private + social security benefits + occupational pensions + some of other income
5.1.1 Gross social insurance benefits	Are available but not given
5.2 Private transfers received	Included in other income
6. Transfer payments	Other deductions as explained above
8. Taxes	Includes income tax and national insurance

Table Four

- Questions on occupation, marital status and economic activity are only asked of adults (see above for definition) not all over 16s.
- Marital status - single sex couples are classified as single as are non-married mixed sex couples.
- Economic activity is not available for 1994/5 and had been (crudely in the absence of a mapping) derived from SIC codes in 1995/6 where it only refers to those adults in employment. These are only asked of those individuals in employment.
- Data on country of birth is unobtainable.
- Data on educational attainment is not available on the FRS prior to 1998/9
- Occupation codes are defined according to standard SOC definitions and are only asked of those people in employment.
- Tenure - Owners include those who own outright or own/part own with the help of a mortgage. Other includes those who live rent-free or are squatting.
- Household type - children and adults are defined as outlined above.

### **Further information on the Family Resources Survey (FRS)**

The Family Resources Survey (FRS) is a continuous survey, which has been running since 1992 and is now the main source of income data in the United Kingdom. It covers the private household sector in Great Britain and so the results exclude people living in institutions e.g. nursing homes, barracks or jails: and homeless people living rough or in bed and breakfast accommodation. The FRS was launched to meet the information requirements of the Department of Social Security. The sample size is larger than the General Household Survey or the Family Expenditure Survey (full interview completed in 1998/9 with 22,913 households).

The sample results are grossed up to provide national estimates. An adjustment is made to sample cases at the top of the income distribution to correct for volatility in the highest incomes captured in the survey. This adjustment uses data from the Inland Revenue's Survey

of Personal Incomes to control the numbers and income levels of the very rich while retaining the FRS data on the characteristics of their households.

### **Best national source**

Our analysis is based on three surveys covering two years worth of data. These surveys are General Household Survey (GHS), The British Household Panel Survey (BHPS) and the Family Rescues Survey (FRS). The BHPS is a longitudinal survey, the FRS and GHS are cross sectional surveys. The GHS is the longest running (1971), followed by the BHPS (1991) and the FRS (1992). The FRS was started to meet the information requirements of the Department of Social Security. Comparison is made amongst all three where appropriate but is mostly between the two cross sectional surveys.

The comparison covers the following issues:

1. Attrition/response rates
2. Sample size/sampling errors/design factors
3. Income concepts

### **Attrition/response rates**

- The rate of attrition from wave 1 to wave 2 of the BHPS was very high. This has implications for subsequent survey bias. The GHS has higher response rates than the FRS.

### **Sample size/sample bias/sampling errors/design factors**

- The FRS has a larger sample size than the BHPS/GHS.
- The FRS aims to cover private households in Great Britain (not Northern Ireland) using a stratified clustered random probability sample drawn from the small users postcode address file (PAF). The FRS aims to achieve a sample size of 25,000 households each financial year.
- The GHS covers residents in private (non-institutional) households in Great Britain (not Northern Ireland) and uses a two-stage sample design with postcode sectors as the Primary Sampling Units. The approximate sample size (in 1994) was 9,700 households.
- Both the FRS and GHS do not sample hard to reach areas (e.g. Highlands and Islands of Scotland). Hence both are subject to bias in the sample design. However, in both surveys, substantial effort is put into the avoidance of such bias and sampling errors.
- The FRS, GHS and BHPS weight the data to address the non-responders and impute missing data. This can be problematic for the BHPS where there is a lot of imputation.
- The size of the standard error relative to the simple random sampling error is represented by the design factor (DEFT) which is calculated as the ratio of the two. Where the standard errors are the same the DEFT is 1, implying that there is no loss of precision associated with the use of a clustered sample design. In most cases, the DEFT will be greater than 1, implying that the estimates based on the clustered sample are less precise than those for simple random sample of the same size. The FRS report includes the standard errors and design factors for several variables. These indicate that precision is good for the FRS (e.g. income, benefit receipt). Similar data were unobtainable for the GHS 1994/5 but was available for 1985 and 1986 data but on pension scheme coverage. Precision was variable, depending on the characteristic analysed.

### **Income concepts**

- None of the surveys include data on net imputed rent as this is difficult to measure in the UK (small rental sector).
- There are common problems identified with self employment and investment income questions on surveys per se. In the 1996 FRS survey this was addressed. The BHPS has very small samples for self employment income and this will under estimate the figure.

- The detailed questionnaire used in the FRS results in better detailed data. The FRS takes an exhaustive approach to data collection e.g. for investment income respondents are asked a range of specified types of savings they hold or have held in the preceding 12 months. This may account for the higher means found in the FRS compared to the GHS and BHPS.
- For the BHPS we used net derived variables lodged in the Data Archive at Essex. This might account for the greater difference in the ratio between gross and net income in table 3.

In conclusion we consider the FRS to be our best national source relating to income (but not necessarily for other classifications). It is a dedicated income survey and asks exhaustive questions about all possible sources of income and seeks to record an exact amount from each source. However, it does not cover other information on living conditions in as much detail as the BHPS and GHS. The latter cover a much wider variety of non-income related items (e.g. GHS has detailed health related data, number of visits to General Practitioner, etc.). Please note that none of the surveys can be linked at the micro-level.

Care should be taken when interpreting our analyses from table 4 where the sample sizes are smaller as they are particularly susceptible to extreme values in the top and bottom quintiles. Our preference is with medians which are more invariant to outliers at the top and bottom of the income distribution. In either case we feel it is more meaningful to focus on percentages of individuals for table 4 as this maybe a more meaningful comparison.

#### References

Bennett et al. (1996) *Living in Britain*. Results from the 1994 General Household Survey. London: HMSO

Breeze E (1990) Report on Sampling Error. Based on the 1985 and 1986 data. General Household Survey. London. HMSO

Cousins C, Croft A, Snowden E. (2000) *European Community Household Panel: Robustness Assessment Report for United Kingdom Income Data, Waves 1 and 2*. GSS Methodology Series. No.19

Curry et al. (1999) *Household Below Average Income 1994/5 - 1997/8*. Department of Social Security. GSS

Gilbert N (ed.) (1994) *Researching Social Life* . Sage

Semmen J et al. (1996) *Family Resources Survey Great Britain 1994-1995*. Department Social Security. London HMSO

Taylor M, Brice J, Buck, N & Prentice E. (1997). *British Household Panel Survey User Manual*. Volume B: Codebook. Colchester: University of Essex.



## Comments on the ECHP data

It should in general be noted that the income data in the ECHP refers to preceding year of the survey.

1) Gross income cannot be provided , and thus table 2 cannot be produced.

2) Regarding table 3:

Compensation of employees: countries have provided both gross and net amounts. Net amounts are used.

Self-employment income and capital income are provided to Eurostat as gross components by the countries. They are converged into net amounts by using a fixed estimation procedure (differentiating by type of household).

Eurostat gets capital income per person and property income by household - these two components are in this table added together.

Regarding transfers: ECHP data cannot distinguish between what is social insurance and social assistance or benefits. E.g. 'unemployment benefits' contain both insurance and benefit types.

The distinction between what is public (social) and private transfers is not clear either. For example, 'pensions' contains both income from private and public schemes.

For private transfers, ECHP data will have only transfers received and no transfer payments.

In table 3 figures are given as averages

Calculations in table 4 is based on OECD modified equivalence scale

### Some input on the quality declaration of national data

The following is listing some points to be included in a description of data based on national sources (administrative and combined administrative/survey data) as a basis for assessing quality and comparability with other sources.

For administrative information the following could be included:

- For each source:
  - o What is the purpose of the source?
  - o What type of contract with/influence by the statistical authorities?
  - o How the data are collected (filled out by respondents, extraction from employers wage files, bank accounts etc.)
  - o What control routines are applied as part of administrative processes?
  - o Population covered (specific groups being left out?)
  - o Definitions of the different variables in the source (specify deviations from the commonly accepted definitions)
  - o Definitions of observation units, especially family and household units (specify deviations from the commonly accepted definitions)
  - o Reference periods (specify deviations from the commonly accepted definitions)
- Routines for control when preparing the data for statistical usage
- Information on any methods for imputation and correction of data
- When data from different sources are combined: information on any matching problems

For survey data used to supplement the administrative information:

- Sample size and survey plan (coverage)
- Response rates and information on non-response
- Attrition rate/initial attrition and wave attrition (only in the case the survey has a panel character)
- Population covered (specific groups left out?)
- Definitions of the different variables in the source (specify deviations from the commonly accepted definitions)
- Definitions of observation units, especially family and household units (specify deviations from the commonly accepted definitions)
- Reference periods (specify deviations from the commonly accepted definitions)
- Frequency of survey
- Weighting procedure and weighting scheme (specify variables used in the scheme)
- 

For combined survey and administrative information

- How are sample estimates compared to external sources (e.g. income estimates compared to register totals, demographic distributions compared to population statistics, etc.)?
- Has register data been used in the process of weighting (e.g. calibration programs like CALMAR etc.)?
- Specific information on any imputations/adjustments made on each of the income items.

## Annex 3

### Income distribution and background variables

Ctry	Variable	National source							ECHP							
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
<b>AGE</b>																
DK	1994	0-15	13124	128485	15	23	27	22	14	1995	13509	15	24	26	20	15
DK	1994	16-24	12598	123333	24	20	20	20	16	1995	12765	25	20	24	15	15
DK	1994	25-49	14507	142026	10	17	23	25	25	1995	14312	14	19	23	23	21
DK	1994	50-64	14881	145681	17	16	16	20	32	1995	16161	16	17	15	22	29
DK	1994	65 +	9455	92565	51	28	10	6	6	1995	12512	37	25	11	12	15
DK	1995	0-15	13575	132219	15	23	27	21	14	1996	13944	11	26	27	20	16
DK	1995	16-24	13094	127533	24	20	20	20	16	1996	13267	23	20	20	21	15
DK	1995	25-49	15012	146217	10	18	23	25	24	1996	14543	13	19	24	24	21
DK	1995	50-64	15548	151433	17	16	15	20	32	1996	15856	16	19	14	23	29
DK	1995	65 +	9859	96029	51	27	10	6	6	1996	11597	43	23	13	9	12
NL	1994	0-15	11139	25386	27	24	22	16	10	1995	10431	26	29	23	14	8
NL	1994	16-24	11505	26221	28	17	20	21	14	1995	11046	29	20	20	21	10
NL	1994	25-49	13722	31271	16	17	19	22	25	1995	12725	18	22	22	21	18
NL	1994	50-64	14395	32807	14	16	20	23	27	1995	14622	14	11	19	24	32
NL	1994	65 +	12229	27870	19	32	18	15	16	1995	12981	21	23	18	17	20
NL	1995	0-15	11674	26266	28	23	22	16	10	1996	11403	25	28	23	15	9
NL	1995	16-24	12024	27055	28	17	20	21	14	1996	11419	29	21	21	17	12
NL	1995	25-49	14400	32401	17	17	20	22	25	1996	13343	18	21	21	20	19
NL	1995	50-64	15214	34232	14	17	19	23	28	1996	15061	13	15	21	25	27
NL	1995	65 +	12751	28689	18	33	18	15	16	1996	12963	21	24	19	17	19
FI	1995	0-15	11225	78711	14	23	25	22	16							
FI	1995	16-24	10067	70590	31	21	18	17	13							
FI	1995	25-49	11928	83636	15	18	21	23	24							
FI	1995	50-64	12571	88145	18	16	16	21	30							
FI	1995	65 +	9637	67576	37	25	18	10	10							
F	1996	0-15	11674	85385	25	22	19	18	15	1996	12165	27	21	19	18	14
F	1996	16-24	11086	81080	31	22	18	16	14	1996	11685	30	23	17	16	14
F	1996	25-49	12825	93804	18	19	21	22	20	1996	13513	17	20	21	23	19
F	1996	50-64	14745	107847	15	16	18	21	31	1996	15453	18	16	18	18	30
F	1996	65 +	12879	94200	16	22	23	20	19	1996	13220	20	23	22	17	18
NO	1994	16-24	12843	132800	30	20	21	17	13							
NO	1994	25-49	15716	162500	11	20	23	23	23							
NO	1994	50-64	17031	176100	11	17	19	24	28							
NO	1994	65+	11277	116600	46	25	12	9	8							
NO	1995	0-15	13792	148401	16	24	25	21	14							
NO	1995	16-24	12937	139198	25	19	21	19	17							
NO	1995	25-49	14991	161301	13	18	21	24	24							
NO	1995	50-64	16500	177542	12	14	19	20	35							
NO	1995	65 +	11102	119460	46	25	13	9	7							
SE	1996	16-24	7825	85	52	20	16	11	2							
SE	1996	25-49	12258	133	19	16	23	23	20							
SE	1996	50-64	14313	155	13	12	16	23	36							
SE	1996	65 +	10747	117	21	37	20	13	9							
SE	1997	16-24	7867	82	56	21	10	11	2							
SE	1997	25-49	12799	133	19	18	22	23	17							
SE	1997	50-64	15907	165	11	14	17	21	38							
SE	1997	65 +	11660	121	23	31	22	14	11							
UK	1994	0-15	11382	7956	28	23	21	17	12	1995	10538	30	23	20	16	11
UK	1994	16-24	12944	9048	20	17	20	23	20	1995	12339	19	22	20	22	17
UK	1994	25-49	14878	10400	15	15	19	23	27	1995	13163	18	18	21	22	21
UK	1994	50-64	14506	10140	15	17	21	22	25	1995	15387	11	14	20	25	29
UK	1994	65 +	10415	7280	27	33	20	12	9	1995	11053	25	30	18	15	12
<b>National source</b>										<b>ECHP</b>						



Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
<b>Country of birth</b>																
DK	1994	Reference country	13403	131211	19	20	20	20	20	1995	14197	22	23	17	17	20
DK	1994	Other EU	12202	119455	30	20	15	15	19	1995	11233	46	23	16	9	6
DK	1994	Other EEA	12261	120035	31	20	16	14	20							
DK	1994	Other European	9219	90251	45	33	13	6	3							
DK	1994	Rest of the world	8895	87082	57	25	8	5	4							
DK	1995	Reference country	13932	135694	19	20	20	20	20	1996	13558	31	25	19	10	15
DK	1995	Other EU	12678	123484	30	19	16	15	20	1996	12942	18	34	7	34	7
DK	1995	Other EEA	12630	123015	32	20	15	15	18							
DK	1995	Other European	9213	89732	49	30	12	6	3							
DK	1995	Rest of the world	9309	90666	56	25	9	6	4							
F	1996	Reference country	13129	96023	17	19	21	21	22	1996	11517	23	26	26	16	9
F	1996	Other European	11578	84679	21	26	24	16	13	1996	11371	41	21	12	12	14
F	1996	Rest of the world	7982	58383	61	21	8	5	6							
SE	1996	Reference country	12276	133	19	20	21	21	21							
SE	1996	Other European	11677	127	24	21	19	18	18							
SE	1996	Rest of the world	9060	98	48	24	8	9	11							
SE	1997	Reference country	13243	137	19	20	20	20	21							
SE	1997	Other European	12317	128	23	19	21	21	17							
SE	1997	Rest of the world	9421	98	44	29	10	9	8							
UK	1994	Reference country	11680	8164	19	20	20	20	20	1995	14191	14	14	23	16	32
UK	1994	Other European	12349	8632	22	19	17	21	21	1995	12358	30	11	14	17	28
UK	1994	Rest of the world	12126	8476	29	19	15	14	23							
UK	1995	Reference country	12235	8944	19	20	20	20	20	1996	15378	11	17	23	20	29
UK	1995	Other European	11808	8632	25	18	19	17	21	1996	14896	11	29	7	24	28
UK	1995	Rest of the world	12876	9412	30	15	13	15	26							
<b>Labour status</b>																
DK	1994	1.1.1 Employees	15425	151015	6	13	22	28	30	1995	14714	10	18	23	24	24
DK	1994	1.1.2 Self-employed	19665	192516	11	12	13	17	47	1995	20063	23	7	15	18	36
DK	1994	1.2 Unemployed persons	12251	119936	18	30	22	18	12	1995	12862	22	19	21	28	9
DK	1994	2 Not in labour force								1995	12344	33	25	17	12	12
DK		In Labour Force								1995	15119	11	17	23	24	25
DK	1995	1.1.1 Employees	15944	155292	6	14	23	28	30	1996	15148	10	16	24	26	24
DK	1995	1.1.2 Self-employed	20391	198604	11	12	13	17	46	1996	18002	20	16	14	15	36
DK	1995	1.2 Unemployed persons	12647	123179	19	30	21	18	12	1996	13943	16	27	19	23	15
DK	1995	2 Not in labour force								1996	12196	33	27	15	14	11
DK		In Labour Force								1996	15336	10	16	23	25	25
FI	1995	1.1 In labour force	12331	86465	11	15	20	25	30							
FI	1995	1.1.1 Employees	13222	92715	5	13	21	28	33							
FI	1995	1.1.2 Self-employed	12784	89640	25	15	15	17	28							
FI	1995	1.2 Unemployed persons	8788	61621	35	30	17	13	5							
FI	1995	2. Not in labour force	10009	70181	29	19	22	16	14							
F	1996	1.1 In labour force	14090	103057	13	17	21	24	26	1996	14662	13	18	21	24	24
F	1996	1.1.1 Employees	13877	101498	11	17	21	25	25	1996	14541	12	18	21	25	23
F	1996	1.1.2 Self-employed	15610	114174	23	14	16	14	33	1996	15753	18	18	16	20	27
F	1996	1.2 Unemployed persons	9559	69911	41	23	16	12	8	1996	10107	39	25	17	13	7
F	1996	2. Not in labour force (children included)	12084	88381	23	22	20	18	17	1996	12364	27	22	19	15	17
NL	1995	Employees	15198	34194	11	14	21	26	28	1995	13399	14	19	23	24	21
NL	1995	Self-employed and other active	17254	38822	14	12	14	21	40	1995	14245	27	13	16	17	26
NL	1995	Inactive persons receiving unemployment benefits	9670	21758	55	17	12	10	7	1995d	10277	36	20	19	14	10
NL	1995	Other inactive persons	12064	27144	25	26	21	16	12	1995	11513	27	23	19	16	15
NO	1994	Selfemployed	16576	171400	19	19	19	17	26							
NO	1994	Employed	16412	169700	8	17	23	26	26							
NO	1994	Family worker	:	:	:	:	:	:	:							
NO	1994	Not applicable	11712	121100	39	25	16	12	9							

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
SE	1996	1.1.1 Employees	14046	152	8	13	23	27	28							
SE	1996	1.1.2 Self-employed	10839	118	36	17	12	16	19							
SE	1996	1.2 Unemployed persons	7465	81	58	18	13	6	6							
SE	1996	2. Not in labour force	10313	112	27	33	18	12	10							
SE	1997	1.1.1 Employees	14807	153	9	15	23	27	26							
SE	1997	1.1.2 Self-employed	11593	120	38	17	11	13	21							
SE	1997	1.2 Unemployed persons	8069	84	53	21	15	5	6							
SE	1997	2. Not in labour force	11361	118	28	28	18	14	12							
UK	1994	1.1.1 Employees	16515	11544	5	11	21	29	33	1995	14753	9	15	22	27	27
UK	1994	1.1.2 Self-employed	17259	12064	20	12	17	19	31	1995	14376	11	19	18	27	25
UK	1994	1.2 Unemployed persons	8258	5772	47	25	14	8	5	1995	10986	30	24	19	16	11
UK	1994	2. Not in labour force	10489	7332	28	29	20	13	10	1995	11183	29	26	18	14	13
UK	1994	In Labour Force								1995	14701	9	15	22	27	27
UK	1995	1.1.1 Employees	16219	11856	5	11	21	29	33	1996	15386	9	16	24	27	25
UK	1995	1.1.2 Self-employed	16575	12116	19	13	18	18	32	1996	18390	8	14	19	23	36
UK	1995	1.2 Unemployed persons	8181	5980	49	24	13	8	5	1996	12614	34	20	15	17	13
UK	1995	2. Not in labour force	10386	7592	28	29	20	14	9	1996	11321	30	26	18	15	12
UK	1995	In Labour Force								1996	15799	9	15	23	26	26
<b>Main activity status</b>																
DK	1994	1.1.1 Employees	15425	151015	6	13	22	28	30	1995	15251	10	17	23	24	26
DK	1994	1.1.2 Self-employed	19665	192516	11	12	13	17	47							
DK	1994	1.2 Unemployed persons	12251	119936	18	30	22	18	12	1995	12707	22	23	22	24	9
DK	1994	Pupil, student, further training	11907	116571	30	20	19	17	14	1995	12576	29	21	24	14	13
DK	1994	Other pensioners	8476	82977	56	26	9	5	4	1995	12235	35	28	13	11	13
DK	1994	Other adult inactive person	10108	98957	45	24	13	9	8	1995	15172	15	29	17	20	20
DK		Housework								1995	12750	38	12	23	20	7
DK		Military_serv								1995	11617	39	.	45	.	15
DK	1995	1.1.1 Employees	15944	155292	6	14	23	28	30	1996	15435	9	16	23	25	26
DK	1995	1.1.2 Self-employed	20391	198604	11	12	13	17	46							
DK	1995	1.2 Unemployed persons	12647	123179	19	30	21	18	12	1996	14331	13	25	18	27	16
DK	1995	Pupil, student, further training	12549	122227	27	21	21	18	14	1996	13079	23	19	22	23	13
DK	1995	Other pensioners	8917	86854	56	25	9	5	4	1996	11771	38	28	13	11	10
DK	1995	Other adult inactive person	10584	103090	45	25	14	9	8	1996	12680	17	32	19	17	15
DK		Housework								1996	12024	43	27	11	7	12
DK		Military_serv								1996	14918	.	.	28	51	21
FI	1995	Employed	13151	92212	8	14	20	26	32							
FI	1995	Unemployed	8788	61621	35	30	17	13	5							
FI	1995	Pupil, student, further training	9989	70044	35	19	21	14	11							
FI	1995	In retirement	9760	68439	23	25	21	7	24							
FI	1995	Permanently disabled	10568	74101	11	8	14	24	42							
FI	1995	In compulsory military services	9980	69983	41	10	13	20	15							
FI	1995	Fulfilling domestic tasks	10654	74705	13	18	38	22	10							
FI	1995	Other inactive person	10280	72086	14	20	28	25	12							
F	1996	Employed	14090	103057	13	17	21	24	26	1996	14670	13	18	21	24	24
F	1996	Unemployed	9559	69911	41	23	16	12	8	1996	10014	40	26	16	12	7
F	1996	Pupil, student, further training	11845	86632	29	20	17	17	17	1996	12535	27	21	17	16	19
F	1996	In retirement	13112	95903	14	20	24	21	21	1996	13474	19	21	22	17	20
F	1996	In compulsory military services	11258	82344	24	21	24	18	15	1996	11991	27	29	12	11	20
F	1996	Fulfilling domestic tasks	11521	84265	29	26	18	13	15	1996	10816	37	24	17	10	12
F	1996	Other inactive person	11486	84009	26	23	19	18	14	1996	13409	25	18	16	21	20
NO	1994	Employed	16596	171600	8	18	22	25	27							
NO	1994	Unemployed	12611	130400	31	24	16	15	13							
NO	1994	Pupil, student, further training	12515	129400	33	19	20	17	11							
NO	1994	In retirement	10957	113300	47	25	13	8	7							
NO	1994	Permanently disabled	12930	133700	24	29	21	16	10							

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
NO	1994	In compulsory military service	:	:	:	:	:	:								
NO	1994	Fulfilling domestic tasks	12515	129400	31	30	19	11	10							
NO	1994	Other inactive person or missing	12060	124700	35	19	20	14	11							
SE	1996	Employed	13502	147	13	14	22	25	27							
SE	1996	Unemployed	7134	77	60	17	12	5	6							
SE	1996	Pupil, student, further training	6378	69	69	16	10	4	2							
SE	1996	In retirement	10664	116	21	38	19	13	9							
SE	1996	Permanently disabled	12166	132	14	30	21	16	20							
SE	1996	In compulsory military services	6682	73	62	38	0	0	0							
SE	1996	Fulfilling domestic tasks	11115	121	26	22	20	18	15							
SE	1996	Other inactive person	10922	119	41	15	6	15	24							
SE	1997	Employed	14295	148	13	16	22	25	25							
SE	1997	Unemployed	7838	81	58	20	12	3	7							
SE	1997	Pupil, student, further training	7336	76	64	13	12	7	4							
SE	1997	In retirement	11631	121	23	31	22	14	10							
SE	1997	Permanently disabled	13755	143	15	29	12	21	24							
SE	1997	In compulsory military services	3880	40	100	0	0	0	0							
SE	1997	Fulfilling domestic tasks	13272	138	23	27	15	12	24							
SE	1997	Other inactive person	10116	105	39	25	16	12	8							
UK	1995	Employed(GHS)	15934	11648	6	12	21	27	33	1996	15957	8	15	23	27	27
UK	1995	Unemployed	7185	5252	53	21	11	9	6	1996	11548	42	17	12	20	9
UK	1995	Pupil, student, further training	9248	6760	40	17	14	17	12	1996	12570	24	19	20	22	15
UK	1995	In retirement	8963	6552	26	36	18	12	8	1996	12042	23	28	18	18	14
UK	1995	Permanently disabled	9176	6708	26	32	20	15	7							
UK	1995	In compulsory military services								1996	15531	14	12	40	20	15
UK	1995	Fulfilling domestic tasks	9034	6604	38	23	18	11	9	1996	11393	33	25	19	11	12
UK	1995	Other inactive person	10884	7956	46	18	13	7	17	1996	10268	34	26	20	12	9
UK	1995	Not applicable (child less than 15 years)	10244	7488	27	21	22	18	12							
<b>Economic activity</b>																
DK	1994	Agriculture, hunting and forestry, fishing	18126	177452	9	14	17	20	41	1995	14728	34	12	19	21	15
DK	1994	Industry, including energy and construction	15315	149938	5	14	24	29	28	1995	14661	10	20	23	26	22
DK	1994	Service activities	15611	152831	8	14	21	26	31	1995	15362	10	17	23	23	27
DK	1995	Agriculture, hunting and forestry, fishing	19052	185565	9	14	17	19	42	1996	13111	26	20	18	19	17
DK	1995	Industry, including energy and construction	15877	154644	5	14	24	29	28	1996	15046	9	18	25	25	23
DK	1995	Service activities	16184	157634	8	14	21	26	31	1996	15625	9	16	23	26	26
FI	1995	Agriculture, hunting and forestry, fishing	11521	80787	25	19	14	18	24							
FI	1995	Industry, including energy and construction	12571	88149	9	15	23	25	28							
FI	1995	Service activities	12633	88583	13	15	19	24	29							
F	1996	Agriculture, hunting and forestry, fishing	11818	86439	25	22	20	18	16	1996	11465	30	29	13	15	12
F	1996	Industry, including energy and construction	9787	71581	35	24	21	12	9	1996	13653	14	22	23	23	18
F	1996	Service activities	13579	99316	13	18	23	23	23	1996	15303	11	16	21	26	27
NO	1994	Agriculture, hunting and forestry, fishing	15745	162800	18	17	21	21	22							
NO	1994	Industry, energy, construction	16257	168100	10	19	22	25	24							
NO	1994	Service activities	16470	170300	8	17	23	25	27							
SE	1996	Agriculture, hunting and forestry, fishing	8959	97	46	19	14	15	7							
SE	1996	Industry, including energy and construction	13880	151	7	14	24	28	27							
SE	1996	Service activities	13770	149	12	13	21	25	28							

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
SE	1997	Agriculture, hunting and forestry, fishing	9199	95	45	25	11	9	10							
SE	1997	Industry, including energy and construction	14749	153	9	12	22	31	26							
SE	1997	Service activities	14517	150	13	16	22	23	26							
UK	1995	Agriculture, hunting and forestry, fishing	14796	10816	20	13	20	23	25	1996	15801	5	16	29	21	29
UK	1995	Industry, including energy and construction	14654	10712	10	13	21	29	27	1996	15169	7	16	25	28	24
UK	1995	Service activities	16148	11804	9	13	20	25	33	1996	16486	8	14	22	27	29
<b>Occupation</b>																
DK	1994	000 Military personal	15006	146913	6	12	24	29	29	1995	15423	7	15	19	30	28
DK	1994	100 Legislators, senior officials and managers	21055	206132	8	9	12	19	52	1995	18746	9	7	12	23	49
DK	1994	200 Professionals	18491	181022	3	6	14	26	51	1995	18166	4	9	19	23	44
DK	1994	300 Technicians and associate professionals	16337	159937	4	10	20	29	37	1995	15632	9	12	24	25	30
DK	1994	400 Clerks	15575	152482	6	13	22	28	31	1995	15200	8	15	23	28	25
DK	1994	500 Service workers and shop and market sales workers	14187	138894	8	18	25	27	22	1995	13523	13	23	28	22	15
DK	1994	600 Skilled agricultural and fishery workers	18598	182073	7	11	16	20	46	1995	12022	37	14	17	22	11
DK	1994	700 Craft and related tradesworkers	14954	146396	4	12	26	31	26	1995	14443	10	21	24	25	20
DK	1994	800 Plant and machine operators and assemblers	14255	139554	4	16	28	31	21	1995	13626	8	31	24	25	12
DK	1994	900 Other	13809	135189	8	20	26	26	19	1995	12991	18	25	24	21	12
DK	1995	000 Military personal	15585	152581	6	12	24	29	28	1996	14425	9	16	36	25	14
DK	1995	100 Legislators, senior officials and managers	24349	237158	2	4	9	19	66	1996	19530	3	7	14	24	51
DK	1995	200 Professionals	19193	186938	3	6	14	26	51	1996	17371	4	9	19	27	40
DK	1995	300 Technicians and associate professionals	17081	166366	4	10	20	28	38	1996	16060	8	13	23	28	28
DK	1995	400 Clerks	15932	155178	6	14	23	28	30	1996	15347	9	12	26	30	23
DK	1995	500 Service workers and shop and market sales workers	14675	142938	9	18	24	26	22	1996	13975	11	22	24	23	20
DK	1995	600 Skilled agricultural and fishery workers	17199	167520	7	15	22	23	33	1996	12902	26	20	25	11	18
DK	1995	700 Craft and related tradesworkers	15651	152442	4	13	26	31	27	1996	15133	11	17	24	26	22
DK	1995	800 Plant and machine operators and assemblers	14804	144190	5	16	28	30	21	1996	13191	10	29	30	21	9
DK	1995	900 Other	14011	136469	9	21	26	26	17	1996	13260	18	25	22	24	11
FI	1995	100 Legislators, senior officials and managers	16581	116267	10	6	12	17	54							
FI	1995	200 Professionals	14889	104399	6	10	12	25	47							
FI	1995	300 Technicians and associate professionals	12639	88628	9	13	20	27	31							
FI	1995	400 Clerks	12377	86785	9	16	23	27	25							
FI	1995	500 Service workers and shop and market sales workers	10978	76975	19	20	23	22	16							
FI	1995	600 Skilled agricultural and fishery workers	11225	78708	27	19	15	18	21							
FI	1995	700 Craft and related tradesworkers	11370	79727	13	19	24	26	18							
FI	1995	800 Plant and machine operators and assemblers	12018	84267	10	15	25	24	25							
FI	1995	900 Elementary occupations	10641	74617	18	23	26	21	13							
FI	1995	000 Armed forces	12967	90927	..	..	..	..	..	Sample size too small (less than 30).						
F	1996	000 Armed forces	11618	84973	15	24	28	22	11	1996	13965	11	20	22	28	20
F	1996	100 Legislators, senior officials and managers	12479	91271	6	26	28	28	13	1996	19746	8	6	14	22	50
F	1996	200 Professionals	20603	150691	10	6	9	16	59	1996	22001	4	3	8	25	61



Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
F	1996	300 Technicians and associate professionals	11816	86420	25	22	20	18	16	1996	16917	5	9	16	33	36
F	1996	400 Clerks	21192	154998	4	5	7	19	65	1996	14182	8	15	28	29	20
F	1996	500 Service workers and shop and market sales workers	15734	115079	5	9	17	31	38	1996	12064	15	26	25	25	9
F	1996	600 Skilled agricultural and fishery workers	13827	101130	7	15	24	32	22	1996	11371	30	28	16	15	11
F	1996	700 Craft and related tradesworkers	11366	83131	18	24	24	24	10	1996	11893	21	26	23	20	10
F	1996	800 Plant and machine operators and assemblers	9507	69531	37	24	20	12	7	1996	12106	18	25	27	19	11
F	1996	900 Elementary occupations	11595	84805	19	22	25	21	12	1996	10813	22	34	23	15	5
UK	1994	000 Armed forces								1995	14111	14	16	11	37	23
UK	1994	Managers & Administrators	20235	14144	9	6	14	23	48	1995	17883	7	10	16	27	40
UK	1994	Professionals	22466	15704	4	5	10	23	59	1995	19053	3	7	15	28	46
UK	1994	Associate Prof. & Technical	19193	13416	5	6	15	27	46	1995	15964	5	13	15	34	33
UK	1994	Clerical & Secretarial	16143	11284	6	10	20	31	33	1995	14786	9	14	22	26	28
UK	1994	Craft & Related	13688	9568	12	14	23	29	21	1995	12497	14	18	24	26	17
UK	1994	Personal & Protective Service	13093	9152	12	18	26	24	20	1995	10904	8	29	28	31	3
UK	1994	Sales	13837	9672	12	16	24	27	21	1995	12971	10	17	29	25	19
UK	1994	Plant & Machine Operatives	12870	8996	12	17	26	29	16	1995	12591	8	23	27	25	17
UK	1994	Other Occupation	11456	8008	17	21	27	24	11	1995	11389	17	22	27	24	10
UK	1995	000 Armed forces								1996	16193	.	11	29	38	22
UK	1995	Managers & Administrators	19776	14456	8	7	14	22	48	1996	20245	6	7	17	24	47
UK	1995	Professionals	21910	16016	4	4	10	23	59	1996	20353	4	7	15	28	47
UK	1995	Associate Prof. & Technical	18851	13780	5	7	14	29	46	1996	17031	6	12	22	29	31
UK	1995	Clerical & Secretarial	15863	11596	6	11	21	30	33	1996	15769	9	14	23	29	25
UK	1995	Craft & Related	13160	9620	13	16	23	28	21	1996	13224	10	21	29	24	15
UK	1995	Personal & Protective Service	12876	9412	13	18	25	25	18	1996	12100	9	24	33	27	8
UK	1995	Sales	13516	9880	12	18	25	25	21	1996	14240	8	18	27	29	18
UK	1995	Plant & Machine Operatives	12591	9204	11	17	26	30	15	1996	12591	12	22	30	23	13
UK	1995	Other Occupation	11239	8216	18	22	24	25	11	1996	11594	17	25	27	21	11
		<b>Educational attainment</b>														
DK	1994	Primary and lower secondary education	12442	121812	24	22	19	18	16	1995	12806	25	25	21	18	11
DK	1994	Upper secondary or post sec. educ.	14679	143703	11	16	22	25	27	1995	14097	17	20	21	22	20
DK	1994	Tertiary education	17533	171645	8	9	15	24	44	1995	16372	8	13	21	23	34
DK	1994	No education completed or under education	9107	89156	49	24	12	9	6	1995	13429	18	20	22	23	16
DK	1995	Primary and lower secondary education	12864	125300	24	23	19	18	16	1996	12940	24	25	19	19	14
DK	1995	Upper secondary or post sec. educ.	15217	148217	11	16	22	25	27	1996	14174	16	20	22	23	19
DK	1995	Tertiary education	18120	176484	8	9	15	24	44	1996	16519	8	14	22	25	32
DK	1995	No education completed or under education	9031	87965	52	23	12	8	5	1996	13701	18	15	27	26	14
FI	1995	No education completed								Combined with Primary and lower secondary						
FI	1995	Primary and lower secondary education (ISCED, 1 and 2)	10221	71673	15	18	21	24	22	Including no education completed						
FI	1995	Upper secondary or post sec. educ. (ISCED, 3 )	11375	79764	14	17	22	24	23							
FI	1995	Tertiary education (ISCED, 5+6+7)	15303	107308	5	7	12	24	53							
F	1996	Primary and lower secondary education (ISCED, 1 and 2)	12516	91542	17	20	22	23	18	1996	11210	29	25	21	14	11
F	1996	Upper secondary or post sec. educ. (ISCED, 3 )	14591	106717	13	14	18	25	30	1996	13441	13	21	24	24	17
F	1996	Tertiary education (ISCED, 5+6+7)	18851	137879	7	7	11	22	53	1996	19621	5	7	11	27	49
F	1996	No education completed	10626	77715	27	25	23	16	9	1996	12673	25	20	17	19	19

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
NO	1994	Primary and lower secondary	13520	139800	26	25	19	17	13							
NO	1994	Upper secondary	14632	151300	16	21	23	21	20							
NO	1994	Tertiary	17756	183600	10	11	18	26	35							
SE	1996	No education completed	8940	97	57	34	0	0	9							
SE	1996	Primary and lower secondary education (ISCED, 1 and 2)	10627	115	25	30	20	14	12							
SE	1996	Upper secondary or post sec. educ. (ISCED, 3 )	12065	131	18	20	22	22	18							
SE	1996	Tertiary education (ISCED, 5+6+7)	13991	152	18	10	16	23	34							
SE	1997	No education completed	6892	71	66	22	12	0	0							
SE	1997	Primary and lower secondary education (ISCED, 1 and 2)	11293	117	27	27	20	14	12							
SE	1997	Upper secondary or post sec. educ. (ISCED, 3 )	12828	133	18	21	22	22	18							
SE	1997	Tertiary education (ISCED, 5+6+7)	15154	157	16	12	17	23	32							
UK	1994	Primary and lower secondary education (ISCED, 1 and 2)	12275	8580	16	15	22	25	21	1995	11096	23	25	21	18	13
UK	1994	Upper secondary or post sec. educ. (ISCED, 3 )	13688	9568	17	11	18	25	29	1995	13655	14	17	23	25	22
UK	1994	Tertiary education (ISCED, 5+6+7)	18449	12896	8	7	12	23	50	1995	18169	7	9	16	26	42
UK	1994	No education completed	9820	6864	22	25	22	19	11	1995	7000	41	33	26	.	.
UK	1995	Primary and lower secondary education (ISCED, 1 and 2)	12733	9308	15	17	22	25	21	1996	11514	23	24	23	18	11
UK	1995	Upper secondary or post sec. educ. (ISCED, 3 )	14440	10556	14	13	20	24	29	1996	14385	14	19	22	24	22
UK	1995	Tertiary education (ISCED, 5+6+7)	18637	13624	8	7	13	23	48	1996	19965	6	8	16	27	42
UK	1995	No education completed	10315	7540	23	26	23	19	10	1996	8541	32	45	.	23	.
<b>Tenure status of household</b>																
DK	1994	A member of family is owner of housing unit	15141	148231	11	13	22	25	28	1995	14709	13	19	23	22	23
DK	1994	No member of family is owner of housing unit	10584	103615	33	30	17	12	8	1995	11988	29	26	20	16	9
DK	1995	A member of family is owner of housing unit	15668	152609	11	13	22	25	28	1996	15041	11	19	22	25	23
DK	1995	No member of family is owner of housing unit	11103	108140	33	30	17	12	8	1996	12023	30	25	21	13	10
FI	1995	A member of HH is owner of housing unit	12079	84695	15	18	20	23	24							
FI	1995	A member of HH is tenant of housing unit	9518	66739	33	26	19	13	8							
FI	1995	Occupying all or part of a housing unit under some other tenure	10920	76571	33	10	24	14	19	Sample sizes in quintiles 2 and 3 very small (less than 30 persons).						
F	1996	A member of HH is owner of housing unit	14297	104566	15	16	19	23	26	1996	14379	15	19	21	22	23
F	1996	A member of HH is tenant of housing unit	11199	81907	27	25	20	16	12	1996	11157	33	23	18	15	12
F	1996	Occupying all or part of a housing unit under some other tenure	11507	84164	25	22	23	18	12							
NL	1994	A member of HH is owner of housing unit	14946	34063	8	16	22	25	30	1995	13084	14	22	24	21	20
NL	1994	A member of HH is tenant of housing unit	10695	24375	33	24	18	15	10	1995	10365	35	24	17	15	10
NL	1995	A member of HH is owner of housing unit	15654	35221	8	16	22	25	30	1996	13847	14	22	23	22	20
NL	1995	A member of HH is tenant of housing unit	11032	24821	34	24	18	15	9	1996	10646	36	23	19	12	10

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
NO	1994	Owner av housing unit	15600	161300	14	20	21	23	22							
NO	1994	Tenant	11248	116300	42	21	16	11	10							
NO	1994	Other	10793	111600	52	18	12	9	9							
SE	1996	A member of HH is owner	13244	144	15	17	20	23	26							
SE	1996	A member of HH is tenant	10498	114	26	25	21	16	11							
SE	1996	Occupying all or part of a housing unit under some other tenure	8295	90	51	18	13	13	6							
SE	1997	A member of HH is owner		146	14	17	22	22	24							
SE	1997	A member of HH is tenant		120	27	26	17	17	13							
SE	1997	Occupying all or part of a housing unit under some other tenure		90	54	14	14	11	8							
UK	1994	A member of HH is owner of housing unit	14953	10452	16	14	20	23	27	1995	14092	12	17	22	25	24
UK	1994	A member of HH is tenant of housing unit	9373	6552	30	36	18	10	6	1995	8289	43	29	16	8	4
	1994	Occupying all or part of a housing unit under some other tenure	11531	8060	32	17	19	17	15							
UK	1995	A member of HH is owner of housing unit	14654	10712	17	14	19	23	27	1996	15364	12	17	23	25	24
UK	1995	A member of HH is tenant of housing unit	9390	6864	30	35	18	11	6	1996	8546	40	31	17	8	3
	1995	Occupying all or part of a housing unit under some other tenure	11026	8060	31	19	20	16	14							
<b>Household type</b>																
DK	1994	1 adult without dependent children	9896	96882	42	28	14	9	7	1995	12025	41	21	15	12	12
DK	1994	2 adults without dependent children	13826	135361	24	17	14	18	27	1995	15231	21	18	13	19	28
DK	1994	3 or more adults without dep. children	16182	158422	7	11	17	27	37	1995	15345	12	14	16	31	27
DK	1994	Single parent with dependent children	9495	92953	41	41	11	4	2	1995	11399	33	32	21	8	6
DK	1994	2 adults with dependent children	14163	138655	8	18	28	27	18	1995	14132	12	21	26	24	18
DK	1994	3 or more adults with dep. children	14077	137809	10	20	27	24	19	1995	13149	17	23	33	12	15
DK	1995	1 adult without dep. children	10418	101475	42	28	14	9	7	1996	11831	40	22	14	11	13
DK	1995	2 adults without dep. children	14382	140077	24	16	14	18	27	1996	14704	23	18	15	17	27
DK	1995	3 or more adults without dep. children	16920	164803	7	11	17	27	38	1996	14463	22	16	14	25	23
DK	1995	Single parent with dep. children	9775	95213	43	39	11	4	2	1996	11930	19	35	28	12	7
DK	1995	2 adults with dep. children	14619	142390	8	18	29	26	18	1996	14522	8	23	26	23	19
DK	1995	3 or more adults with dep. children	14611	142310	10	20	26	24	19	1996	13855	20	17	23	29	10
FI	1995	1 adult without dep. children	9084	63699	48	18	13	11	10							
FI	1995	2 adults without dep. children	12382	86822	16	19	18	19	29							
FI	1995	3 or more adults without dep. children	12754	89432	11	16	18	26	29							
FI	1995	Single parent with dep. children	9947	69748	22	34	23	11	10							
			<b>National source</b>							<b>ECHP</b>						

Ctry	Variable	PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
FI	1995	2 adults with dep. children	11662	81774	13	20	24	25	19							
FI	1995	3 or more adults with dep. children	11330	79449	14	21	25	22	18							
F	1996	1 adult without dependent children	12182	89096	23	22	21	18	16	1996	11879	30	22	20	15	14
F	1996	2 adults without dep. children	14531	106278	14	18	20	21	27	1996	15076	16	17	20	20	28
F	1996	3 or more adults without dep. children	13085	95707	14	20	24	22	20	1996	14358	12	22	21	22	23
F	1996	Single parent with dep. children	9843	71992	41	22	17	13	7	1996	9567	42	25	17	10	7
F	1996	2 adults with dependent children	12845	93945	19	20	19	22	19	1996	13509	18	20	21	22	19
F	1996	3 or more adults with dep. children	10384	75948	37	22	17	14	10	1996	10838	33	27	15	14	11
NL	1994	1 adult without dependent children	11577	26385	31	22	16	15	16	1995	11955	31	19	14	18	18
NL	1994	2 adults without dep. children	15119	34457	12	16	16	21	34	1995	16241	12	12	15	22	39
NL	1994	3 or more adults without dep. children	14865	33878	7	12	21	33	28	1995	14354	11	12	25	26	27
NL	1994	Single parent with dep. children	8391	19123	64	18	9	6	4	1995	8746	51	24	9	8	7
NL	1994	2 adults with dependent children	11788	26865	21	24	24	19	12	1995	10835	23	27	24	16	9
NL	1994	3 or more adults with dep. children	11367	25904	22	25	26	18	10	1995	9995	31	24	18	21	6
NL	1995	1 adult without dependent children+C475	12072	27163	30	23	16	15	16	1996	12745	31	19	13	18	18
NL	1995	2 adults without dep. children	15930	35842	12	17	16	22	34	1996	16602	12	12	15	25	36
NL	1995	3 or more adults without dep. children	15597	35094	6	11	23	32	28	1996	14342	8	16	25	27	24
NL	1995	Single parent with dep. children	8501	19127	68	16	7	5	3	1996	8885	59	20	9	3	9
NL	1995	2 adults with dependent children	12430	27968	21	23	24	19	13	1996	11812	22	27	24	17	10
NL	1995	3 or more adults with dep. children	11944	26873	21	26	25	18	9	1996	10621	30	27	23	13	8
NO	1994	1 adult without dependent child	11528	119200	45	18	15	11	11							
NO	1994	2 adults without dep. children	15629	161600	20	20	15	19	27							
NO	1994	3 or more adults without dep. children	16576	171400	8	15	24	29	24							
NO	1994	Single parent with dep. children	11422	118100	34	31	20	10	5							
NO	1994	2 adults with dependent children	15019	155300	11	23	25	23	18							
NO	1994	3 or more adults with dep. children	14265	147500	12	27	27	22	12							
NO	1995	1 adult without dependent child	10832	116549	48	17	12	13	10							
NO	1995	2 adults without dep. children	15302	164648	18	21	17	16	29							
NO	1995	3 or more adults without dep. children	16493	177463	6	13	20	26	36							
NO	1995	Single parent with dep. children	11595	124762	33	31	18	12	5							

Ctry	Variable	National source								ECHP						
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
NO	1995	2 adults with dependent children	14427	155239	12	21	26	24	17							
NO	1995	3 or more adults with dep. children	14750	158708	10	22	25	25	18							
SE	1996	1 adult without dependent child	9558	104	35	24	18	14	9							
SE	1996	2 adults without dep. children	14083	153	12	18	17	22	32							
SE	1996	3 or more adults without dep. children	9364	102	45	22	13	10	9							
SE	1996	Single parent with dep. children	10074	109	27	30	21	15	8							
SE	1996	2 adults with dependent children	12664	137	13	17	25	25	19							
SE	1996	3 or more adults with dep. children	8848	96	56	14	20	4	7							
SE	1997	1 adult without dependent children	10010	104	35	26	17	13	9							
SE	1997	2 adults without dependent children	15714	163	10	16	19	21	34							
SE	1997	3 or more adults without dep. children	10647	110	28	36	15	13	9							
SE	1997	Single parent with dependent children	9739	101	32	35	18	11	4							
SE	1997	2 adults with dependent children	13311	138	14	18	24	26	17							
SE	1997	3 or more adults with dep. children	7732	80	62	18	5	8	7							
UK	1994	1 adult without dependent children	11233	7852	30	27	16	13	14	1995	11012	27	29	17	13	14
UK	1994	2 adults without dep. children	14953	10452	15	19	19	20	27	1995	15272	15	16	18	18	32
UK	1994	3 or more adults without dep. children	15474	10816	8	13	20	29	30	1995	15250	5	14	21	30	29
UK	1994	Single parent with dep. children	8109	5668	43	34	14	6	2	1995	7109	59	26	10	3	2
UK	1994	2 adults with dependent children	13167	9204	19	18	22	22	18	1995	11973	22	21	22	20	14
UK	1994	3 or more adults with dep. children	12200	8528	16	20	27	22	15	1995	11130	21	24	20	21	13
UK	1995	1 adult without dependent children	11026	8060	29	26	16	15	14	1996	11278	32	25	15	14	13
UK	1995	2 adults without dep. children	14725	10764	16	18	18	20	28	1996	16143	14	17	15	22	31
UK	1995	3 or more adults without dep. children	14938	10920	8	13	21	29	29	1996	16382	6	13	24	27	30
UK	1995	Single parent with dep. children	8181	5980	40	37	14	6	3	1996	6996	57	33	5	3	2
UK	1995	2 adults with dependent children	13231	9672	19	18	22	21	19	1996	13197	19	21	26	18	16
UK	1995	3 or more adults with dep. children	11951	8736	15	20	29	23	14	1996	12067	21	21	24	25	9
<b>Household size</b>																
DK	1994	1 person	9896	96882	42	28	14	9	7	1995	12025	41	21	15	12	12
DK	1994	2 persons	13545	132605	24	19	14	17	25	1995	14927	21	20	14	18	26
DK	1994	3 persons	15024	147082	11	15	19	27	28	1995	15061	15	16	17	26	26
DK	1994	4 persons	14331	140300	7	16	30	28	19	1995	13997	11	17	28	27	17
DK	1994	5 persons and more	13005	127317	16	26	25	17	15	1995	12849	16	34	28	11	11

Ctry	Variable	National source							ECHP							
		PPS	Mean NC	I	II	III	IV	V	YEAR	PPS	I	II	III	IV	V	
DK	1995	1 person	10418	101475	42	28	14	9	7	1996	11831	40	22	14	11	13
DK	1995	2 persons	14093	137261	24	19	14	17	26	1996	14511	23	20	16	17	25
DK	1995	3 persons	15572	151672	11	15	19	27	28	1996	15309	14	14	17	28	27
DK	1995	4 persons	14845	144589	7	16	31	28	19	1996	14600	8	18	29	27	17
DK	1995	5 persons and more	13462	131120	16	27	25	17	15	1996	13404	14	23	34	19	11
FI	1995	1 person	9084	63699	48	18	13	11	10							
FI	1995	2 persons	12154	85225	17	20	18	18	27							
FI	1995	3 persons	12371	86745	13	18	19	26	25							
FI	1995	4 persons	11695	82008	10	20	24	27	19							
FI	1995	5 persons and more	10609	74393	18	26	27	18	12							
F	1996	1 person	12182	89096	23	22	21	18	16	1996	11879	30	22	20	15	14
F	1996	2 persons	14210	103931	15	18	20	21	26	1996	14728	17	18	20	20	26
F	1996	3 persons	13301	97286	17	18	20	23	21	1996	14560	13	17	21	24	25
F	1996	4 persons	12802	93632	18	20	21	22	19	1996	13935	14	20	20	25	21
F	1996	5 persons and more	10241	74903	38	25	16	12	10	1996	12498	24	24	22	18	12
NL	1994	1 person	11577	26385	31	22	16	15	16	1995	11955	31	19	14	18	18
NL	1994	2 persons	14796	33720	14	17	16	20	32	1995	16042	13	13	15	22	37
NL	1994	3 persons	13506	30781	17	15	21	25	22	1995	13431	17	14	20	27	22
NL	1994	4 persons	12296	28023	16	23	25	22	14	1995	11410	17	26	26	19	11
NL	1994	5 persons and more	10678	24334	30	25	22	14	8	1995	10165	31	28	24	11	7
NL	1995	1 person	12072	27163	30	23	16	15	16	1996	12745	31	19	13	18	18
NL	1995	2 persons	15568	35027	14	17	15	21	32	1996	16350	13	12	15	24	35
NL	1995	3 persons	14203	31957	17	15	21	26	22	1996	13868	15	16	21	25	23
NL	1995	4 persons	12839	28889	17	22	26	22	13	1996	11836	19	25	28	18	10
NL	1995	5 persons and more	11257	25327	30	25	22	14	8	1996	10956	25	31	22	13	9
NO	1994	1 person	11528	119200	45	18	15	11	11							
NO	1994	2 persons	15435	159600	20	20	15	19	26							
NO	1994	3 persons	16402	169600	10	15	21	27	26							
NO	1994	4 persons	15174	156900	8	22	29	25	15							
NO	1994	5 persons and more	13917	143900	16	31	24	17	12							
NO	1995	1 person	10813	116345	48	17	12	13	10							
NO	1995	2 persons	14865	159943	20	21	17	16	26							
NO	1995	3 persons	15496	166734	11	16	19	25	28							
NO	1995	4 persons	15217	163736	8	18	26	27	20							
NO	1995	5 persons and more	13312	143238	15	28	27	18	12							
SE	1996	1 person	9558	104	35	24	18	14	9							
SE	1996	2 persons	13806	150	13	19	17	21	31							
SE	1996	3 persons	13309	144	15	15	19	26	27							
SE	1996	4 persons	12221	133	14	17	29	26	15							
SE	1996	5 persons and more	10903	118	20	27	30	16	7							
SE	1997	1 person	10010	104	35	26	17	13	9							
SE	1997	2 persons	15232	158	13	17	19	21	31							
SE	1997	3 persons	14276	148	14	17	16	28	26							
SE	1997	4 persons	13002	135	13	17	29	28	14							
SE	1997	5 persons and more	10994	114	25	28	27	13	6							
UK	1994	1 person	11233	7852	30	27	16	13	14	1994	11195	29	29	15	11	16
UK	1994	2 persons	14506	10140	16	20	19	19	25	1994	14602	15	19	17	20	28
UK	1994	3 persons	14283	9984	15	16	20	23	25	1994	14005	16	16	20	24	23
UK	1994	4 persons	13391	9360	17	16	23	24	20	1994	12662	18	16	25	23	18
UK	1994	5 persons and more	10638	7436	29	25	20	16	9	1994	10782	26	24	23	16	11
UK	1995	1 person	11026	8060	29	26	16	15	14	1995	11012	27	29	17	13	14
UK	1995	2 persons	14227	10400	18	20	18	19	26	1995	14772	17	18	18	17	30
UK	1995	3 persons	13800	10088	16	17	21	23	23	1995	14395	14	17	19	25	25
UK	1995	4 persons	13516	9880	16	17	23	24	19	1995	12636	18	16	24	25	17
UK	1995	5 persons and more	10599	7748	29	23	21	16	10	1995	10374	25	26	24	16	9

## Recent publications in the series Documents

- 99/12 K.-G. Lindquist: The Importance of Disaggregation in Economic Modelling
- 99/13 Y. Li: An Analysis of the Demand for Selected Durables in China
- 99/14 T.I. Tysse and K. Vaage: Unemployment of Older Norwegian Workers: A Competing Risk Analysis
- 1999/15 L. Solheim and D. Roll-Hansen: Photocopying in Higher Education
- 1999/16 F. Brunvoll, E.H. Davila, V. Palm, S. Ribacke, K. Rypdal and L. Tangden: Inventory of Climate Change Indicators for the Nordic Countries.
- 1999/17 P. Schønning, M.V. Dysterud and E. Engelién: Computerised delimitation of urban settlements: A method based on the use of administrative registers and digital maps.
- 1999/18 L.-C. Zhang and J. Sexton: ABC of Markov chain Monte Carlo
- 1999/19 K. Flugsrud, W. Irving and K. Rypdal: Methodological Choice in Inventory Preparation. Suggestions for Good Practice Guidance
- 1999/20 K. Skrede: Gender Equality in the Labour Market - still a Distant Goal?
- 1999/21 E. Engelién and P. Schønning: Land Use Statistics for Urban Settlements: Methods based on the use of administrative registers and digital maps
- 1999/22 R. Kjeldstad: Lone Parents and the "Work Line": Changing Welfare Schemes and Changing Labour Market
- 2000/1 J.K. Dagsvik: Probabilistic Models for Qualitative Choice Behavior: An Introduction
- 2000/2 A. Senhaji: "An Evaluation of some Technology Programs executed by the Norwegian Government in the 80's and the 90's
- 2000/3 K. Rypdal and B. Tornsjø: Environmental Pressure Information System (EPIS) for the Pulp and Paper Industry in Norway
- 2000/4 K. Rypdal and B. Tornsjø: Chemicals in Environmental Pressure Information System (EPIS)
- 2000/5 R. Ragnarsøn: The Role of Subcontracting in the Production System
- 2000/6 K.E. Rosendahl: Industrial Benefits and Costs of Greenhouse Gas Abatement Strategies: Applications of E3ME: Modelling external secondary benefits in the E3ME model
- 2000/7 G.A. Ellingsen, K.E. Rosendahl and A. Bruvoll: Industrial Benefits and Costs of Greenhouse Gas Abatement Strategies: Applications of E3ME: Inclusion of 6 greenhouse gases and other pollutants into the E3ME model
- 2000/8 R. Ragnarsøn and L. Solheim: Industry Statistics in Mozambique: Major Findings and Recommendations
- 2000/9 R. Johannessen: The Consumer Price Index of Mozambique: A Short Term Mission 13-31 March 2000
- 2000/10 B.K. Wold: Planned Co-operation with Instituto Nacional de Estatística (INE), Mozambique: Report from Short Term Identification Mission 27<sup>th</sup> March to 3<sup>rd</sup> April, 2000 Requested by NORAD/Oslo
- 2000/11 P. Boug: Modelling Energy Demand in Germany: A Cointegration Approach
- 2000/12 E. Engelién and P. Schønning: Land use statistics for urban settlements
- 2000/13 M. Rønsen: Impacts on Women's Work and Child Care Choices of Cash-for-Care Programs
- 2000/14 H.C. Bjørnland: VAR Models in Macroeconomic Research
- 2000/15 T.L. Andersen: Short-term Statistics in Mozambique: A short-term mission 19 June - 6 July 2000
- 2000/16 J. Thori Lind: The Use of Household Welfare Functions to Estimate Equivalence Scales
- 2001/1 T. Bye, R Choudhury, M. Harlarson and P. Hardarson: The ISM model: A CGE model for the Icelandic Economy
- 2001/2 K.Ø. Sørensen, J.L. Hass, H. Sjølie, P. Tønjum and K. Erlandsen: Norwegian Economic and Environment Accounts (NOREEA) Phase 2
- 2001/3 G. Haakonsen, K. Rypdal, P. Schønning and S.E. Stave: Towards a National Indicator for Noise Exposure and Annoyance: Part I: Building a Model for Traffic Noise Emissions and Exposure
- 2001/4 T. Åvitsland: User Costs of Real Capital
- 2001/5 H.V. Sæbø: Strategic planning and management in Instituto Nacional de Estatística, Mozambique: Short Term Mission Report, November 2 - 9, 2000
- 2001/6 H.V. Sæbø, J. Byfuglien and R. Johannessen: Quality issues in Statistics Norway