Austria 1994: Survey Information

Summary table

Generic information	
Name of survey	Austrian European Community Household Panel (ECHP) / *Europäisches Haushaltspanel*
Institution responsible	National level: Interdisciplinary Center for Comparative Research in the Social Sciences (ICCR) (Community level: Eurostat)
Frequency	Annual
Survey year / Wave	1995 (Wave 1, ECHP Wave 2)
Collection period	September – December 1995
Survey structure	Panel
Coverage	Whole territory (a national representative sample plus a regional sample for areas affected by high rates of unemployment)
Geographic information	Information was collected in NUTS 3 accuracy, but was then aggregated into NUTS 1 for confidentiality reasons.
Files delivered	5 cross-sectional files: the households' register file, the households' questionnaire file, the personal register file, the individual questionnaire file and the Sample weights file.
Sample size	
Households	3,382 households (out of a gross sample of 4,967 addresses)
Individuals	7,441 individuals 16 and over
Sampling	
Sampling design	Two-stage sampling: first a sample area was selected, and then, within this area, a building object/housing unit was selected (by random sampling in urban areas and by proportionate stratified sampling around census tracts in rural areas)
Sampling frame	'Building register' *(Gebäuderegiste*r)
Questionnaires	Household questionnaire and Individual questionnaire
Standard classifications	
Education	1-digit ISCED-97
Occupation	1-digit ISCO-88 (information originally collected in 2-digit accuracy)
Industry	3 categories only with corresponding 2-digit NACE codes (same as above)
Income	
Reference period	1994 (whole year)
Unit of collection	Mostly individual, excl. housing allowances, social assistance, rental income and inheritance/lottery winning.
Period of collection	Mostly monthly income together with number of months received during reference year; some yearly income.
Gross/net	Most variables are collected net of taxes and contributions (with the exception of self-employment earnings, and wages which are collected also gross).
Data editing / processing	
Consistency checks	Basic data editing (correcting for mistakes in the routing) was done in parallel with the data entry by the fieldwork institutions. Further checks and cleaning carried out by the ICCR.
Weighting	Household level weights were computed by ICCR to take into account: differences in the probabilities of selection of a household, non-response, household characteristics, and distribution of the population covered at the individual level according to gender, age, education and occupational level.
Imputation	A first-set of imputations (or rather advanced data-editing) was carried out by the ICCR and is included in the LIS files: imputation of information of specific variables on the basis of information supplied by other variables (advanced editing); ICCR also imputed information for constructed variables (to correct the information on household income as derived from the personal questionnaire), but those are not used in the LIS files. The more complex imputation carried out centrally by EUROSTAT was not included in the files used by LIS.

This document is based upon “The European Community Household Panel (ECHP): Survey methodology and implementation”, 1996 and draws entire sections from “The social situation of Austrian households”, by L. Giorgi, ICCR, Vienna, November 1996 (see http://www.iccr-international.org/echp/reports/final-report1.zip).

Table of contents:

A. General characteristics

Official name of the survey/data source:
Austrian European Community Household Panel (ECHP) / *Europäisches Haushaltspanel*

Administrative Unit responsible for the survey:

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The European Household Panel Survey (ECHP) is a standardised survey conducted in the Member States of the European Union under auspices of the Statistical Office of the European Communities (EUROSTAT). The survey involves annual interviewing of a representative panel of households and individuals in each country, covering a wide range of topics on living conditions. It was launched in response to the increasing demand in the EU for comparable information across the Member States on income, work and employment, poverty and social exclusion, housing, health and many other diverse social indicators concerning living conditions of private households and persons.

Following a two-wave pilot during 1993 in all 12 Member States at the time, the full-scale survey began with Wave 1 in 1994, but Austria joined only in 1995 following the entry of Austria in the European Union, and ended with Wave 7 in 2000, when it was decided to drop the input-harmonised ECHP for the output-harmonised SILC (Survey of Income and Living Conditions). Although the ECHP is a household survey with a high degree of co-ordination, the collection of data takes place in each country, and consequently a degree of flexibility has been allowed so as to permit each country to adapt common procedures to its national situation. The implementation of the first Wave in Austria was made possible with the financial support of both Eurostat and the Austrian Federal Ministry for Social Affairs (BMAS). The survey was carried out by the Interdisciplinary Centre for Comparative Research in the Social Sciences (IFS/ICCR) in collaboration with the public opinion research institutes FESSEL and IFES, under the supervision of the Austrian Statistical Office (ÖSTAT). The implementation of the first wave of the ECHP was preceded by a feasibility study (1993) and a pilot study (1994/1995). The pilot survey was used to select a data collection unit and for checking the applicability of the questionnaire in the Austrian context.

The ECHP data allow a comprehensive analysis of the income and living conditions of the Austrian population. The questionnaire used addresses in detail the subject areas of income, fixed household expenditures, including debts, work, training and education, child care, health and social relations. On the subject of income, the ECHP data enable, perhaps for the first time in Austria, the investigation of the relations and relative significance of various income components, including transfer payments, per individual and per household. Given the comparatively high response rate achieved and the quality of the data, the ECHP database consequently provides a rich source of policy-relevant information and one that may be further used for the application of micro-simulation models that inquire into the effects of various taxation and social welfare measures. The panel aspect of the survey will allow the charting and analysis of the longitudinal development of income relations and the exploration of the short, medium and long-term effects of macro-economic and political economic developments at the micro level of household economies. Last but not least, the participation of Austria to the ECHP project allows drawing comparisons with other countries on the subjects addressed.

B. Population, sampling size and sampling methods

Sample size and coverage

The sample size for each Member State was determined on the basis of various theoretical and practical considerations and the available budget. In Austria, the sample for the main survey was conceptualised and drawn by the Austrian Statistical Office. It comprised (a) a nationally representative sample of 4,967 addresses (expected net sample: 3,500, response rate 70%), and (b) a regional sample (oversampling) of 714 addresses in Burgenland, Mühlviertel and Waldviertel (expected net sample 500), areas affected by high rates of unemployment.

Sampling frame and methodology

Sampling frame - The sampling frame for both sample sets was the ‘building register’ *(Gebäuderegiste*r), which is based on the last census of 1991 but updated to include new buildings. In principle, each address of the sample list corresponds to one building object, and from each building object only one housing unit is sampled. The sampling procedure followed was a two-step one: first a sample area was selected, and then within this area, a building object and, concurrently, housing unit (in a one to one ratio).

Sample Areas - Out of technical reasons related to the use of the 'building register' as the sampling frame it was necessary to divide the addresses in as small regional units as possible. Consequently the sample was divided in two parts: (A) in the *urban are*a, addresses were drawn from all municipalities with more than 10,000 inhabitants (68 in total) and from Vienna. (B) in the *rural area* (which comprises communities with less than 10,000 inhabitants) the addresses from the 'building register' were first clustered around *Zählsprengel* (census tracts corresponding to administrative units -- there are 8,800 census tracts in Austria overall, average size of each is 1,000 inhabitants).

For the sampling of census tracts proportionate stratified sampling was used. The tracts were stratified according to 'type of housing' (according to equipment, furnishings etc.) On the basis of information entailed in the census the tracts were divided into three categories, i.e. tracts with at least 50 per cent type A housing units; tracts with 50 to 80 per cent type A housing units, and tracts with more than 80 per cent type A housing units. In this way 24 strata were obtained, 3 per county (excluding Vienna). Tracts were drawn in each strata proportionally to population size.

Sampling units - In the urban sample areas addresses were drawn randomly and proportional to population size. In the rural sample areas, eight addresses per tract were randomly selected. The addresses correspond to building objects and for each building object there corresponds one housing unit.

The drawing of building objects and concurrently of housing units was done by the use of an algorithm and a mechanical procedure. The algorithm makes use of the following parameters:

- *sw* defines the range of selection and is equal to N/n where N is the total number of housing units in a sample area and n the number of required addresses;
- *a* is a number within the interval 1 .... sw and is generated randomly;
- *ges_anz* describes the total number of housing units in building objects;
- *ges_old* describes the number of housing units prior to the last summation step undertaken in the procedure;

and runs as follows: The number of housing units per building objects are consecutively added up till *ges_anz* > *a*. The building object which comes to fulfill this condition is the building object selected and within this the housing unit selected is that which corresponds to *ges_old* - *a*. (So if, for instance, *sw* =112.5 (=1,000/8) and *a*=60 and the first five building objects have 20, 36, 40, 50 and 10 housing units respectively, then the building selected is the third one (20+36+40=96) and within this the housing unit 36 (96 (*ges_old*)-60=36)). The procedure is repeated n-1 times (with *ges_anz* and *ges_old* placed at 0) whereby for each remaining time, the number *sw* is used as the ceiling and not *a*.

Interpretation of housing unit numbers - This is as follows:

(a) In case the housing unit number is „1", then the first housing unit in the building object is the one selected. In the majority of cases this is when per building object there corresponds only one housing unit.

(b) In case the housing unit number is greater than „1" and in the building object the housing units are numerated, then the housing unit number corresponds to the door number.

(c) In case the housing unit number is greater than „1“ and there is no numbering of units in the building object then the interviewers are to follow the random-route procedure for identifying the housing unit corresponding to the number given.
(d) Finally, some building have more than one building objects and if this is not clearly defined in the address list, then the housing unit number corresponds to the number of the building object to be selected.

Ovesampling - For the oversampling the same procedure was used; for stratification purposes in the case of rural areas, the criterion of minimum 5% unemployment rate was instead used.

Substitution was only be undertaken for those addresses which turn out not to correspond to private household addresses as well as for addresses that correspond to „second residence“. Substitution followed the matched-pair procedure and was done centrally by the ICCR on the basis of the documentation and information provided by the Statistical Office.

C. Data collection and acquisition

Field work

The fieldwork for the first wave of the survey was carried out in the months of September to December 1995 by IFES and FESSEL. Some 300 interviewers were used in the survey. The interviewers were provided training at the onset of the survey and were kept under close supervision at all stages of the study. The first completed questionnaires were checked thoroughly – this proved extremely important because it meant that we could already at the early stages of the fieldwork identify typical mistakes (in interpretation or in following the routing) which could then accordingly be indicated to the interviewers. Mistakes that could not be corrected through editing were clarified, to the extent possible, through follow-up calls. In households where specific members refused to answer the personal questionnaire, the interviewer was instructed to attempt to obtain some basic, mainly demographic information from the respondent, to allow for imputations -- however these cases were kept to the minimum; so were the number of proxy interviews.

Questionnaire

Eurostat has sought harmonisation of the questionnaires employed in each country in terms of their structure, content and interpretation. The Community ECHP questionnaire is composed of three parts:

- *Household Register:* it has the functions of: controlling and tracing evolution of the sample over time, collecting information on non-responding cases, maintaining records of interviewers’ performance, providing critical information for the linkage of households and persons over time and also collecting a few basic items of substantive information; definition and control of the sample is the basic function of the Household Register; it keeps a record of all addresses, households and individuals in the sample for each wave, and as they are carried over from one wave to the next and linked across waves; records are kept of changes in household addresses, of the outcome of all interviewing, and of reasons for non-response where the interviewing has not been completed; in the manner the HR is a basic instrument of operational control in the ECHP.

- *Household Questionnaire:* it collects information on: changes in household location, housing conditions, amenities, problems and possession of durable, housing tenure, mortgage and rent amounts paid, financial situation of the household (debt burden, etc.), sources of household income and the approximate total net monthly amount, and housing allowance, social assistance, and rental, property and other income received by the household as a whole.
- *Personal Questionnaire:* through personal interview with each member aged 16 or over the 31st December of the preceding year, it collects detailed information on each person's economic activity and income, and on a large number of other variables.

In order to meet national specificities (as well as specific client needs from the Austrian side), the Community version of the questionnaire had to be revised to quite some extent. Despite these quite extensive changes, however, it is still possible on the basis of the Austrian variables to construct most of the EUROSTAT variables. In what follows we summarize the main revisions introduced, first for the household questionnaire, then for the personal questionnaire.

Household questionnaire - The Austrian version of the household questionnaire comprises 71 questions and 238 variables as compared to 41 questions and 141 variables in the Community version. The major revisions introduced relate to the following areas: housing-related costs and expenditures, child care and household income.

- *<u>Housing-related costs and expenditure</u>*: Housing-related expenditures are asked of all respondents, and not just of tenants and subtenants. In the case of owners and those for whom accommodation is provided rent-free this comprises the sum of running/operating costs and extras, *albeit* excluding costs for heating, electricity and gas (for tenants and subtenants it includes rent, running/operating costs and extra costs, again excluding costs for heating, electricity and gas). With reference to owners: In the Community version of the questionnaire, owners are asked about mortgage and other housing-related payments as well as about allowances from public schemes for housing costs. In the Austrian questionnaire, they are additionally asked about subsidies received in connection with building costs, debts related to the purchase of the house/apartment as well as about the current estimated price of their dwellings and that of the furnishings and equipment it includes. With reference to tenants/subtenants: In the Community version of the questionnaire, tenants are asked about the rent, as well as about extras payments related to housing and allowances they might receive from public schemes in connection with housing costs. The structure of the Austrian version is similar, albeit with additional questions that allow a more precise breakdown of housing expenditures (for rent, operating costs and extra costs) and of type of allowances received. Finally, like in the case of owners, tenants are asked whether they have to repay debts related to housing costs, and if so, the amount; also about the value of the furnishings and equipment of their apartment.

- *Child care:* the Community version of the questionnaire devotes only two questions to *child car*e: basically the respondent is asked whether for children under 12 the household claims external child care and if so, whether it has to pay for it. In the Austrian version of the questionnaire, a set of seven questions relating to childcare is asked for each child under 15 years of age. These questions relate to the use made of external childcare facilities (in terms of time), the expenses related to this and the claim and access to relevant public-scheme allowances.
- *Household income:* in addition to elaborating on household-related expenditures, the Austrian version of the questionnaire is quite elaborated in terms of household income. The prescribed question about the sources of household income has been extended to include a greater number of categories, and the respondent is additionally asked to provide an estimation of the amounts obtaining for each income source. The information deriving from this question may then be combined with the information provided by the questions dealing with income from renting property and income from inheritance (or lottery winnings) to provide an estimation of the household income, which may then be controlled against and compared with the estimations on individual income deriving from the individual questionnaires.

The revisions introduced in the Austrian version of the household questionnaire were elaborated with the intention of rendering this a more powerful instrument in terms of measuring household income *and* household standard expenditures to, in turn, provide a clear profile of the economic situation of the household.

Regarding income, the implications of this are twofold: first, with the Austrian household questionnaire the probability is much higher that the basic household income (by which it is meant income from employment and social benefits of all household members) estimated on the basis of the information derived by the personal questionnaires will approach the values reported in the household questionnaire; consequently, the latter can provide a basis (either directly or through imputation) to correct and control for possible shortcomings in the responses provided to income questions in the personal questionnaires.

Personal questionnaire - The Austrian version of the personal questionnaire comprises 229 questions which correspond to 568 variables as compared to 197 questions and 403 variables in the Community version of the questionnaire. The most principal and significant revisions relate to the measurement of personal income, specifically income from salaried work, income from self-employment (including farming activities) and income from other sources like savings, shares, dividends etc.

- *Income from salaried work:* two major changes were introduced in connection with the measurement of income from employment. The first relates to work for more than one employer; the second to the mode as such of asking income questions. With reference to work for more than one employer: one of the main disadvantages of the Community version of the personal questionnaire is that it does not allow for a comprehensive measurement of income from employment deriving from more than one employer (be it in series or, less frequently, in parallel); in the Community version of the personal questionnaire respondents whose status may not have changed even though their employers might have are asked to provide an aggregate estimation of their monthly income from employment which often leads to biased reports (along the lines of their current employment conditions). Having made this experience in the first wave of the pilot, it was decided for the second wave to allow for these respondents to report on their income from each separate employer. An additional factor taken into consideration for introducing these revisions was the significance of the increasing insecurity of the labour market for social policy research and analysis. With respect to the method of measurement, two major points deserve attention: The first is the use of pay slips; in the Austrian personal questionnaire respondents are provided with the possibility to report on their income from employment by reference to their pay slip (monthly or yearly). This in turn saves them a number of additional detailed questions whilst guaranteeing the reporting of accurate data. Only 10 % of our respondents in the second wave of the pilot could or would make available their pay slips, yet it is expected that this ratio will increase in the second wave of the survey. The only disadvantage of this mode of questioning is that, insofar as commissions, tips and payments for overtime are concerned it is only relevant for those payments that are made subject to taxation. For the majority of the respondents that cannot provide their pay slips as reference, the Austrian personal questionnaire is constructed in such a way as to allow for an easy and recognizable structure for asking about various components of income from employment separately for each item, and either on a monthly or a yearly basis: respondents are sequentially asked to report on their regular salary (montly or yearly) as well as their income from payments for overtime, tips and/or commissions. Regarding the 13th and 14th salaries it should be noted that insofar as these are practically paid to all employees in Austria, they are not specifically asked. Instead what is asked is whether extra monthly payments are received.

- *Income from self-employment:* in the case of income from self-employment, like in the case of income from employment, the Austrian questionnaire allows for reporting on various types of self-employment from the same respondent. A distinction is drawn between three basic kinds of self-employment: agriculture & forestry, business and free-lance activities. The questions are constructed in a very similar fashion for each type of activity: the respondent is asked to provide precise information on profit *or* losses or the approximate ranges. The questionnaire module for income from farming activities includes some additional questions which relate to expenditures, the amount saved due to the consumption of own goods and the amount of income made available for private use. This mode of measuring income from farming was tested already at the stage of the feasibility study with success; it has also been used in various other studies in Austria equally succesfully.
- *Income from savings or capital investments:* during the second wave of the pilot, a very detailed question on income from savings or capital investments distinguishing among various types of such income and requesting the amounts for each single category was tested. Very much to the surprise of everyone involved in the implementation of the Austrian pilot survey, this question turned out to work much better than the previous more general and subtle question. In

fact, whereas in the first wave of the pilot, the majority of those admitting to have income from such sources like saving certificates, premium bonds, life insurance, mortgage bonds or shares would more likely provide the approximate range, in the second wave they were more forthcoming with precise amounts or at least with approximate ranges for each of the named categories. This same question met with similar success in the main survey.

The changes introduced in the Austrian version of the personal questionnaire appear extensive, yet are this only in terms of paper; in fact the revisions are in substance minor -- the attractiveness of the Austrian personal questionnaire lies certainly in its „economy of scale“: more detailed information is obtained through a more simplified and transparent structure.

The precise variable structure of the Austrian questionnaire and how the latter correspond to the EUROSTAT variables can be read in the methodological appendix to the final report to the pilot survey of the ECHP (Giorgi, 1995). The variable codebook (for both versions) with specifications on the raw data format, the length and categories of each variable can be obtained upon request from the ICCR.

D. Definition of the survey units

<u>Household</u>

Community definition: for the purposes of the ECHP, a household is defined at the Community level in terms of two criteria: the sharing of the same dwelling and the common living arrangements. All the individuals considered by the household to form part of the household are taken into account, even if they are temporarily absent for reasons of work, study or sickness.

<u>Head of household (HoH) and reference person (RP)</u>

Community definition: for Wave 1, both concepts were used according to the following definition: a HoH/RP must be defined at the point of data collection in order to meet 3 principal objectives:

- as a reference point for establishing the relationship of all members of the households;
- to select a respondent for the household questionnaire;
- to determine to whom certain components of household income should be attributed in the individual questionnaire.

From Wave 2 onwards, the concept of HoH was dropped, relationships between household members are recorded using a matrix in the household register and the RP has been defined for the sake of simplicity and comparability as the member who owns or is responsible for the accommodation. The respondent to the household questionnaire is chosen according to the following list of priorities:

- the first preference is for the person who responded to the household interview of the preceding round;

- otherwise, an eligible ‘panel’ member, with priority in the following order: the RP; the RP’s spouse or partner, another eligible ‘panel’ member (member of the initial sample);
- at the last resort, any eligible interviewee even though not a panel member.

E. Contents

<u>Labour market information</u>

The ECHP encompasses two related measures of the individual’s economic activity:

Current activity status: status during the reference week, i.e the 7 (full) days preceding the interview (a moving reference period rather than a fixed period in terms of specific calendar dates is used because of the extended data collection period of the ECHP).

The categories of classification of the total population are presented below:

Total population
- Working age population (16+)
  - Employed (at work or with job but temporarily not at work)
    - Normally working for 15+ hours per week
    - Normally working for <15 hours per week
  - Unemployed (not working and seeking and available for work)
  - Not economically active (not seeking and/or not available for work)
- Population below the working age (<16)

Labour force (economically active population) = Employed + Unemployed
Population not economically active = Not economically active + Population below the working age

Labour force participation rate = Labour force / Working age population
Unemployment rate = Unemployed / Labour force

Main activity status: according to the main activity concept, persons are classified as being in job or self-employment if they presently work for at least 15 hours per week; for the remaining, the main status (including the status of being unemployed) is determined according to self-declaration, in principle on the basis of the most time spent.

<u>Income</u>

Eurostat’s main concern was with disposable income (i.e. gross income minus compulsory deductions for tax and Social Insurance contributions) in the calendar year before the interview; however, details on both current income receipts from these sources and receipts in the previous year were collected in the Irish version of the questionnaire, allowing both current and annual income to be measured. Information on household income is obtained in two forms:

- a simple, approximate indicator of the household current total net monthly income (obtained from one single item in the household questionnaire),
- a detailed enumeration of individual components of income at the household and individual levels over the preceding year.

Individual level income comprises:
- *Income from employment (including training and apprenticeship):* this is obtained for persons normally aged 16 and over at the 31st of December of the preceding year, who at any time during the preceding year receive a wage, salary or other form of pay for work as an employee or an apprentice; normal gross as well as net earnings (including additional payment such as from overtime, bonus, etc.) per month are asked for, along with the normal hours worked as to permit the computation of wage rates; if a person had different jobs during the reference year, not at the same time, this person had to answer on the job with the longest duration.
- *Income from self-employment:* in this case gross amount after deduction of expenses is sought; the reference period is the most recent year or similar duration for which the respondent can provide the information; in the case of partnership with persons outside the household, the respondents' own share only is recorded; in the case of partnership involving household members, the total amount is recorded in the questionnaire of the main persons responsible for the business; when actual amounts cannot be specified, approximate information in the form of a range is sought.
- *Income from casual/secondary work:* only the total net amount received during the reference year is recorded.
- *Income from private transfers and from financial assets:* only the total net amount received during the reference year is recorded; a range is asked for when the actual amounts cannot be specified.
- *Income from social and social insurance transfers:* individual components are specified in detail following the ESSPROS classification; when the normal net amounts per month and the number of months received cannot be given separately, the total net amount for the reference year is recorded.

Household level income comprises components of income which are normally received by the household as a whole, rather than by members individually; this includes:
- housing allowance received by owners or tenants (in the interest of simplifying the question sequence, the current monthly amount and number of months received during reference year is asked for households who report receiving such an allowance at the time of the interview)
- social assistance: for both cash and non-cash assistance, the specific months of receipt are recorded (rather than simply the total number of months during the reference year), along with the normal monthly amount in the case of cash assistance
- rental income: total for the reference year; a range is sought if the actual amount cannot be specified.
- lump sum receipts: approximate ranges.

Gross versus net distinction: for certain components, the questionnaire does not attempt to make a sharp distinction between gross and net amounts in order to limit response burden; in the main, however, the overall amount obtained can be taken to approximate the concept of net income, i.e. net of income tax and social insurance deductions at source; note that this is not always the same as disposable income, normally defined as net of final tax settlement (direct additional payment or refund) on the income; such information on tax is not included in the ECHP questionnaire.

In addition to the detailed enumeration of the income components for the preceding year, some information collected is relating to the current situation:

- current gross and net monthly income from employment (including training and apprenticeship) for persons normally working 15 hours or more a week;
- current gross and net monthly income for persons normally working less than 15 hours a week but having worked for at least one hour during the seven days preceding the interview.

F. Quality of data

Data entry

The entry of the data was done by the fieldwork institutions according to the guidelines provided by EUROSTAT and the ICCR – four separate documents supply information on the coding of variables with specifications on category values and length of variables for the household and personal registers, the household questionnaire and the personal questionnaire respectively.

The household and personal registers include the basic information supplied by the register (the first at the household level, the second at the personal level). In the case of the household register this includes the number of household members, the number and identification numbers of household members that are eligible for the personal questionnaire, the identification number of the reference person (as well as of the person responsible for the housing and of the head of household, if other than the reference person), the identification number of the household and its split number as well as all the information pertaining to the weighting procedure and the estimation of the sample errors. The personal register file includes basic information on each of the persons eligible for answering the personal questionnaire, like their identification number, their gender and age, whether they work for at least 15 hours per week, their status as member of the household as well as their set of relations to other household members. The household and personal register data files serve to summarise important information on the sampled households and their members that is significant for checking the consistency of the data files (including the household and personal questionnaire data files -- see below) as well as for linking the persons throughout subsequent waves.

The household questionnaire data file includes all the variables corresponding to the household questionnaire and all household records (i.e. 3,382 for the national sample, 560 for the oversample). The personal questionnaire data file includes all personal records (7,441 for the national sample, 1,275 for the oversample) and all variables corresponding to the personal questionnaire per record. For both the household and personal questionnaire data files there exist an Austrian version (which includes the variables as corresponding to the Austrian version of the questionnaires) and a EUROSTAT version (with the translated variables according to the Community guidelines). Saved in ASCI (fixed) format, the household questionnaire is of the size of close to 800 Kbytes, that of the personal questionnaire 2.4 Mbytes.

The experience of the pilot survey proved extremely important for managing the task of data entry when dealing with such a complex instrument as that used by the ECHP. Data entry began in parallel with the fieldwork and was completed about three months following the end of the fieldwork. Some basic data editing (correcting for instance for mistakes in the routing) was done in parallel with the data entry. The raw data became available in March 1996. This were checked and further cleaned by the ICCR during the subsequent two months. This further cleaning included editing of a similar kind as that done by the fieldwork institutions (i.e. correcting for routing or for the length and type of variables etc.), but also some more complex editing more similar to a first-level imputation: this concerned mainly cases for which the information to specific variables which was missing could be constructed out of other variables or obtained by further inquiries. The ICCR was also responsible for translating the Austrian variables to the EUROSTAT variables.

The data was delivered to EUROSTAT in July after first being submitted to the Austrian Statistical Office for control and checking. This was returned in September with requests for clarifications especially regarding the translated variables of the personal questionnaire. The raw data was finally submitted to EUROSTAT towards the end of November.

<u>Response rates</u>

The achieved sample for the whole of Austria amounts to 3,382 households (7,441 individuals 16+) which represents an overall response rate 7 of about 70 per cent from a gross sample of 4,967 addresses. In the over-sampling regions the response rate approached 80 per cent giving an achieved sample of 560 households (1275 individuals 16+). The table below shows analytically the response rates achieved for the national sample, distinguishing between urban and rural areas and by county. What these tables show is that the response rate was, not surprisingly, higher in the rural areas than in the urban areas. At the individual level, (i.e. within households) the response rate achieved was 98 per cent.

Table: Non-response by county

County	**Area**	**Response rate (complete interview / valid addresses) %**
Burgenland		80
Kärntnen	Urban	80
	Rural	71
Niederösterreich	Urban	77
	Rural	60
Oberösterreich	Urban	80
	Rural	71

Salzburg	Urban	83
	Rural	56
Steiermark	Urban	68
	Rural	68
Tirol	Urban	77
	Rural	78
Vorarlberg	Urban	77
	Rural	67
Wien		61

The item non-response was overall quite low for all items. In the case of the income-related items it averaged at 5 per cent and did not exceed 10 per cent. The only exception was the question on income from savings, capital or investment where the majority of respondents answered with reference to the scales rather than providing precise entries.

Zero income was reported by about 10 per cent of all respondents, mainly housewives and youngsters in education (see also introduction to chapter one). Zero income was also often reported by the self-employed (in which case it means 'no profit, no loss'), among which we also find a considerable number reporting negative income (i.e. loss).

Data quality

The data quality is judged overall as very good. Preliminary checks carried out comparing our results with those of the Micro-census and in the case of income data with information deriving from data sources such as the social security fund and the census and labour market statistics were very encouraging. More elaborated checks and controls are necessarily the subject of a study of its own and beyond the scope of this report, however, where relevant for the type of analysis reported here, comparisons are drawn.

Comparisons with other statistical sources

Precise comparisons (and test for representivity) were carried out for the following list of variables on the basis of which the weighting procedure, described below, was developed. The comparisons were done with the Micro-census of 1994 and concerned the following variables:

at the household level:

- household type (single households, two-person households with no children, nuclear family type of households with children, other 'bigger' households)
- tenure (owner, tenants, sub-tenants)
- type of community (distinguishing between urban/rural using seven categories elaborating on the agrarian quota of each community)
- number of economically active persons
- distribution of population aged 16+

at the individual level:

- gender,

– age,
– education, and
– occupation.

There were no great deviations between the ECHP and the Micro-Census with regards the estimations drawn for the above list of variables with the exception of occupation -- given the higher response rate in rural areas as compared to urban areas, there were more farmers in the ECHP sample than in the Micro-census (or in comparison to the Census). Another problem was that of civil servants, but this the ECHP shared with the Micro-census; at the subjective level more persons tend to classify themselves as civil servants than what is in fact the case.

<u>Sample weights</u>

The weighting was done in accordance with the guidelines provided by EUROSTAT (DOC.PAN 36/95) following the Iterative Proportional Fitting Method of Demming and using, as noted, the micro-census data of 1994. In brief, the weighting procedure entailed four stages:

1. First, the calculation of design weights introduced to compensate for differences in the probabilities of selection of a household (W1); these weights were supplied by the Austrian Statistical Office and were inflated to allow for the estimation of aggregates.
2. Second, the calculation of non-response weights (W2); these were done by defining weighting classes of about 100 units by area using NUTS2 and NUTS3 information.
3. Third, the calculation of household weights (W3) using the following classification variables: household type and size; type of community; tenure; number of economically active persons, distribution of population aged 16+.
4. Fourth, controlling for the distribution of the population covered at the individual level according to gender, age, education and occupational level (W4).

The data were at each stage weighted with the product of the weights determined at previous stages. Trimming was done for extreme weight values.

For the calculation of non-response weights information deriving from the household register was used. For the calculation of the subsequent weights information from the household and personal questionnaire was used as well as information from the personal register concerning age and gender distributions.

At the final stage there emerged a weight for each household and one for each individual. No common weight (i.e. corresponding to a household and its members) was estimated as this would have required techniques (like the generalised least square method) that were not available. Weights W3 and W4 will in fact be re-calculated centrally by EUROSTAT at a later stage.

For the estimation of population aggregates, care needs to be taken (despite the fact that the Austrian weights are already inflated -- as a result of W1, see above) given the necessary deletion of some records from the analysis in specific cases (for instance of the suspicious zero income values in the case of income distribution analysis -- see chapter one, or of the self-employed with regards earnings -- see chapter two, or of the extreme high or low values in the case of income) or as a result of missing information on demographic variables. Such procedures are necessary in terms of the analysis yet can create problems when trying to estimate population aggregates. In this case it is advisable to estimate an inflation factor -- in some cases the ratio of persons older than 16 to the total population as reported by reliable statistical sources can suffice; in other cases, it is necessary to use a number of inflation factors according to the kind of analysis needed. Still caution is needed in those cases where the ‘missing’ information can not be considered to adhere by the normal distribution -- in this case the inflation has to take into account the specific profile of the missing cases. In this report where inflations were undertaken, these and the conditions under which these were done are indicated.

Imputation

Two kinds of imputation were undertaken:

- Imputation of information of specific variables on the basis of information supplied by other variables: for instance if the personal questionnaire record of a single pensioner lacked the information on the pension variable (amount) and it was known that this person was a pensioner since 1994, then the amount of pension was imputed on the basis of the relevant question in the household questionnaire; or if the occupational status of a person was missing, but the profile of their job could be constructed on the basis of other variables, then their occupational status was estimated. This type of imputation has much more the character of advanced editing.
- Imputation of information for constructed variables. This was done especially to correct the information on household income as derived from the personal questionnaire. Preliminary analyses of the household income distribution showed that the distribution was skewed to the left with many households reporting very low or zero income. When this was compared to the income distribution as supplied by the household questionnaire it became clear than in many of the relevant cases the problem was not that of falling into the poverty trap but rather of under-reporting among some household members (this was especially the case of bigger families, the self-employed and old pensioners). In this case, and provided it could be established through the information supplied by other variables that there were no significant changes in the income situation of the household between the years 1994 (the basis of estimation of personal income and, thereafter, household income through aggregation) and 1995 (the reference year for the question referring to income in the household questionnaire), the information provided by the household questionnaire was used to impute the information on household income constructed on the basis of the personal questionnaire.

No imputation using proxy or means were undertaken at this stage in the ECHP. These, if further necessary, will be done centrally at EUROSTAT. However, EUROSTAT does not plan to use any complex methodologies for imputation.

Finally, with regards the constructed variables -- these range from variables recoded for specific analysis (for instance age, educational level, occupational status, ISCO-88, type of economic activity, NACE etc.), to variables combining the information of a number of other variables (for instance socio-economic status of person or multi-criteria poverty) to income variables (yearly, monthly, per consumer unit etc.) for each person and aggregated at the household level for each household and for different types of income relevant for the study of income progression (for instance factor income, primary income, income from work, income from social transfers together and separately per type etc.). The full list of constructed variables for the Austrian ECHP can be obtained upon request by the ICCR.

EUROSTAT has attempted to standardise these procedures across countries as well as to produce a harmonised list of possible constructed variables. Preliminary lists are available, yet there is still work to be done in the area of standardisation of procedures for analysis, given the differences especially in the systems of social protection but also of status and social relations in the various member countries of the European Union.

G. Uses of survey

The data from the Austrian ECHP has been used extensively for research in a number of policy areas including poverty and anti-poverty strategies, pension provision for the elderly, the training and education systems, the tax and Social Welfare systems; health policy; pension coverage and the circumstances of people with disabilities.

Once integrated into the ECHP, the entire dataset becomes a unique source of information on household income and living conditions in the European Union because of the comparability of the data generated as well as the multi-dimensional coverage and the longitudinal design of the instrument which allows the study of changes over time at the micro level. These specific features made it possible to respond to the increasing demand for comparable information on income, labour, and various social indicators. Numerous ECHP data requests originating from the Commission (DGII, DGV, DGXXII) and the OECD have been answered. Various National Data Collection Units (NDUs) have also extensively used ECHP data. Eurostat publications drawing on ECHP results include to date 7 “Statistics in Focus”, 5 “horizontal” publications, 2 methodological volumes, and over 100 technical and methodological documents. Wide use of ECHP data has been made in the context of two major Commission reports: the annual *Employment in Europe* report and the biennial *Social Protection in Europe* report.

Poverty

“The social situation of Austrian Household” reports poverty rates as calculated from the 1995 Austrian ECHP (with incomes referring to 1994). Following EUROSTAT definitions, a household is defined as threatened from poverty if it has at its disposal less than half of the household income of an average household. Very different estimations as to the extent of poverty risk in terms of individuals are reached by using either the EUROSTAT or the OECD equivalence scale, whereas the results are more similar for poverty rats at the household level: using the OECD one, the number of households threatened by poverty is estimated to be at 10 per cent, and using the EUROSTAT scale, the number of households threatened by poverty is 10.5 per cent.