Belgium 1997: Survey Information

This document is based upon the Methodological guidelines of the Socio-Economic Panel 1997, compiled at the Center for Social Policy in the University of Antwerp.

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A. General characteristics

Official name of the survey/data source:
Sociaal-Economisch Panel (SEP) / Panel Socio-Economique

Social and Economic Panel (SEP)

Administrative Unit responsible for the survey:

Center for Social Policy (CSP)/ University of Antwerp (UFSIA)
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The Centre for Social Policy (CSP) is a research center at the department of Sociology and Social Policy of the University of Antwerp (UFSIA). Funding for the survey is mainly provided for by the Belgian Government. Copies of the original documentation and other documentation can also be obtained from the CSP. The following people, all at the above address, can be contacted for more information about various aspects of the survey: Prof. dr. Bea Cantillon (Director of the CSP), Mr. Rudi Van Dam, Mr. Karel Van den Bosch, Mrs. Diane Proost. For the first time, part of the CSP panel has been carried out in collaboration with another centre, the CREPP from the University of Liege, in the framework of the Programme for Future Socio-Economic Research, led by Prof. dr. P. Pestieau. There are no restrictions on the use of this data by the public.

General design

Since 1976, the CSP has been conducting surveys at regular intervals (1976, 1982, 1985, 1988, 1992, 1997) with a view to obtaining information regarding income and welfare distribution, poverty and the adequacy of the social security system. Since 1985, the survey has been a panel survey, which means that the same households have been

involved. This panel survey is called the Social and Economic Panel (SEP) and so far encompasses four waves (1985, 1988, 1992 and 1997). It is a representative sample of private Belgian households. The data can be used as a panel or as a cross section. A micro-simulation model was developed for the 1992 database, and further re-applied to the 1997 wave.

B. Population, sampling size and sampling methods

Coverage of the population in the survey:

The sample is representative for all Belgian private households. Excluded from the survey are: people living in institutions (care or nursing homes, prison), people without a permanent address and people who live in Belgium but who are not registered. Foreign residents in Belgium are included in the survey. According to the 1991 census the number of people living in collective households corresponds to 1.1 % of the total population so it is estimated that more than 98 % of the Belgian population is covered in the survey.

Sample design

The original SEP-sample (1985) is a clustered and stratified sample. All Belgian municipalities were stratified according to region and according to average per capita income. Ten municipalities were randomly picked from each stratum. Subsequently, 7,000 households were selected from the population register by means of a systematic stochastic sample. In order to increase the reliability of the cross-sectional analysis, the panel was replenished in 1992 with an additional 921 households, obtained by means of a separate sample that was identical in design to the previous one (for details about previous sampling procedures, see BE85-BE88-BE92 - Documentation on-line). This method has been repeated in 1997, but for accuracy reasons and analysis purposes (in view of a program for future related socio-economic in collaboration with the university of Liège) another extra sample (with family heads between 50 and 75 years old) has been added to the 1997 panel.

1. Update of the addresses of the panel-households

After the 1992 wave, SEP still included 2894 households from the panel started in 1985. These households were to be interviewed again, together with the split-off households. The actual addresses of those households were found through the Population Register via a phone procedure on the basis of the family name and first name of the respondents. The results of this procedure were the following:

	Number	Percentage

Same address	2116	73.2
Corrected address	280	9.7
Household moved	469	16.2
Household expired	27	0.9
TOTAL	2892	100.0

2. Selection of the additional sample

The design of this additional sample was the same as the one used in 1992 and 1985. The sampling took place in 2 stages. In a first stage, a number of municipalities were selected. In a second stage, a number of households within each municipality were selected.

For the selection of the municipalities, all Belgian municipalities were grouped in 11 strata. First, municipalities were divided by region (Flanders, Wallonia and Brussels), secondly within the regions of Flanders and Wallonia, municipalities were stratified (five strata per each of the two regions) using the following indicators:

- Average taxable income per person
- Number of houses with basic facilities: central heating, bathroom, running water in the house
- Access to a telephone
- Possession of a car

From each stratum municipalities have then been selected through a systematic stochastic sample, with a selection probability proportional to size (number of households), and with replacement.

In a second step, 8,000 households were selected from the Population Register. The main guidelines for this selection were:
- systematic stochastic sample of private households;
- coverage of all heads of household resident in Belgium (incl. foreigners);
- the heads of households were sorted according their age, from old to young;
- the total number of heads of households per municipality divided by the number of addresses to be selected per municipality determined the stepsize;
- the starting point (for the first household) between 1 and the stepsize has to be chosen randomly.

Since this resulted in too many households, a second identical selection reduced the number to 3,800 (25 households from the original 53 were selected per cluster).

For an overview of the whole sample procedure, see Table 1.

Table 1: Overview of the sample design

Region	Stratum	Number of private households in the stratum	Number of households in the initial sample	Number of clusters (municipalities)	Number of selected households for the SEP
Vlanders	1	268,826	544.03	10 (10.2)	259
	2	208,439	421.82	8	200
	3	568,695	1150.88	22	547
	4	803,129	1625.30	31	772
	5	353,949	716.29	13	340
Wallonia	1	84,636	171.28	3	81
	2	624,826	1264.47	24	600
	3	124,543	252.40	5	120
	4	251,071	508.10	10	241
	5	204,929	414.72	8	197
Brussels	1	460,091	931.09	18	442
Total		3,953,134	8000.38	152	3800

3. Extra sample of 50-75 year olds

In order to get the needed 700 extra households, here as well a larger sample was initially set in place (1540 households). In the original sampling (of 8,000) there were still 1,680 households available in the relevant age group (households which had not yet been used for the SEP). 140 of these were discarded through a systematic sampling. In this way 1,540 households were available for the extra sample.

Sample size

In the end of the process, there were 4632 households and 12260 individuals included in the sample in 1997.
This can be split up in:
- the panel (comprising 1938 original households and 319 split-off households): and the additional sample: 3957 households and 10767 individuals;
- extra sample with persons aged 50-75: 675 households and 1493 individuals.

Weighting procedure

Weights are calculated in function of the sampling frame
For cross-sectional analysis of the 1992 and 1997 data, weighting is required in order to correct for any differential selection and response (see Proost, et al., 1996). Consequently, this panel wave is representative for the population at the time of the survey.

C. Data collection and acquisition

The fieldwork was undertaken by a commercial firm specialist in survey undertaking (Dimarso-Gallup Belgium). Many more interviewers were used than in previous waves. Dimarso organised together with the UA and Ulg-team four interviewer-briefings. The main guidelines for interviewers were the following:
- For the panel: every person of a panel household had to be followed up. In case the household or a person has moved, they were to be interviewed at the new address. The interviewers were asked to acquire information concerning the new address.
- For the additional sample: in case the household did not live any longer at the given address, and there was another household living there, the latter was to be interviewed; for the additional sample, no new addresses were pursued.

As a rule, a minimum of three contacts were to be tried at different days and hours. The fieldwork started at the beginning of April 1997 and finished at the end of December 1997. The main results are summarised in Table 2.

Table 2: Final result of the fieldwork

	Panel	Additional (incl. extra sample)
Successful interview	2263	2081
Seriously ill/not in the state to answer	68	171
Self-filled questionnaire not returned	0	2
Immediate refusal	488	1660
Refusal later on	68	116
Temporarily absent	58	153
No contact despite attempts	219	576
Unknown/unexisting address	39	70
Interview not carried out for certain reasons	21	49
Existing address, untraceable household	110	74
Household not exiting any longer	52	35
No interview at the	4	21

moment, appointment disregarded		
Questionnaire not received	0	31
Number of available addresses	**3390**	**5339**

D. Definition of the survey units

<u>Household versus fiscal unit</u>

The survey is conducted at ordinary household level and individual level. The ordinary household (sometimes called sociological household) consists of all those individuals living at the same address, and more or less sharing their income and expenditures. The head of the household (or eventually his partner) is responsible for the household questionnaire.

For the purpose of the micro simulation though (see next section), the households have been divided into fiscal units, where each fiscal unit corresponds to one tax declaration (the subdivision is based upon a fiscal typology).

<u>Individuals</u>

For the individual level, all persons aged 18 and over respond to an adult questionnaire. Some information for under 18s is available.

E. Contents

The SEP includes data about various kinds of income, as well as different socio-economic characteristics of the households and individual household members over the age of 18. These characteristics concern household composition and the activities, education level, occupation and hours of employment of each of the household members. In addition, the survey includes questions about the housing situation. The SEP-database also contains information about movable and immovable property of the households, and about their disposable income.

<u>Income data: SEP data and the microsimulation results</u>

The CSP-surveys measure monthly incomes both at the individual and household level. The overall disposable income of a household encompasses all net wages from primary or secondary employment, net self-employment incomes, social security benefits (retirement pension, unemployment benefit, child benefit, sickness and disability benefit)

and various other types of income (such as alimony, rental proceeds, scholarships, social assistance from local public welfare centres).

In other words, the SEP-database contains net monthly amounts, not gross incomes or taxable income on an annual basis. As such, it does not contain direct information about the amount of income tax paid by the households, or about employees' social security payments or other personal contributions.

In September 2001, the microsimulation of gross results were received from Belgium, and additional net-gross microsimulation files were added to the database. The microsimulation model was the MISIM (MicroSImulation Model) developed by the CSP at UFSIA, which is a static microsimulation model that, on the basis of tax and benefit legislation, allows the calculation of social security contributions (net-to-gross trajectory), personal income taxes and the main social benefits (a separate module exists for social benefits, called MISISZ). The following brief description is extraceted from "MISIM - A microsimulation model of income tax and social security contributions for Belgium", by Gerlinde Verbist, Karel Van den Bosch and Bea Cantillon, *CSB Working Paper,* February 2001.
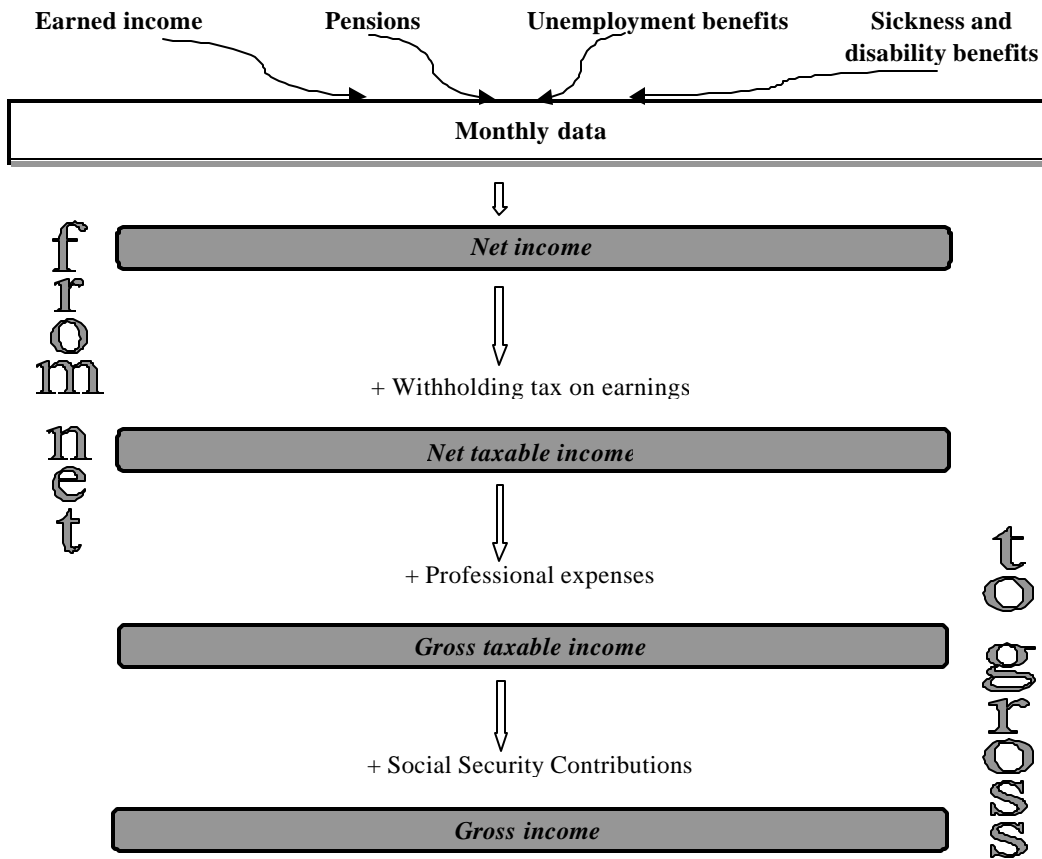
1. The net-to-gross trajectory

The net incomes are converted into gross amounts by means of the so-called 'net-to-gross trajectory' (see figure 2). To make this conversion, the model first calculates the withholding tax on earnings from employment, so to arrive at the taxable income on a monthly basis. Then it calculates the personal social security contributions on the basis of this monthly income, which yields the gross income. The next step, i.e. calculating employers' social security contributions, is strictly speaking not part of the net-to-gross trajectory, but it can be useful if one wants to simulate measures with respect to the funding of the social security system.

This conversion is based on the assumption that the net income that respondents declare is the income after deduction of withholding tax, but before the final assessment of income tax (which does not occur until the annual income is known). It shall therefore be assumed that the respondent reveals his monthly income, without taking into account any fiscal correction that may occur in the final settlement.

Self-employed persons do not pay withholding tax, but there is a system of quarterly prepayments. It is assumed that the professional income that self-employed persons declare in the survey is their income before any such prepayment is made.

Figure 2: Net-to-gross trajectory

Earned income **Pensions** **Unemployment benefits** **Sickness and disability benefits**

Monthly data

f r o m   n e t

Net income

+ Withholding tax on earnings

Net taxable income

+ Professional expenses

Gross taxable income

+ Social Security Contributions

Gross income

t o   g r o s s

2. Conversion of monthly amounts into annual amounts

Ultimately, income tax is calculated on the basis of annual income. The survey, however, asks about monthly earned and replacement incomes. These amounts must, therefore, be converted into annual amounts. The year under consideration is the year that precedes the moment of questioning. The survey provides some information about changes that may have occurred in the course of the previous year (i.e. the year prior to questioning). Insofar as this is possible, such transitions are taken into account in the model.

3. Combined taxable income

The combined taxable income of a fiscal unit consists of four income components, minus deductible expense. The four income components are: occupational income, income from immovable assets, income from movable assets, and various incomes (see figure 3).

4. The tax calculation

Taxes are subsequently calculated on the basis of the combined taxable income, consisting of the taxable occupational income, the taxable income from real estate and various other incomes, minus any deductible expense (see figure 3).

Figure 3: Tax calculation

Individual gross taxable income			
Occupational income	**Income from immovable assets**	**Income from movable assets**	**Various incomes**
Earned income Replacement income	Indexed and revalued rental value of property	Dividends Interests	Maintenance money received
minus professional expenses	minus interest payments on loans: (additional) housing allowance	*taxed separately*	

Total net taxable income

Deductible expenses

Day-care costs
Alimony
Additional deduction of interest payments

Combined taxable income

Basic tax

Fixed tax allowance

Tax on fixed tax allowance

Tax reliefs

Dependent children
Children under age of 3
Dependent persons
Non-remarried widow(er)
Unmarried parent with dependent child
Disabled tax payer

Long term savings

Replacement income

Income tax due

+ Supplementary crisis contribution

+ Municipal tax