

## 6. TECHNICAL ANNEX

### SAMPLING PROCEDURE

CBGS's 5th fertility and family survey (NEGO V) consists of two investigations, one in the Flemish Region, the other in the Brussels Capital Region, which are mainly typified by a partially different sample composition. The following samples were drawn:

a) Two independent samples for the Flemish Region: approximately 3,000 women and 2,000 men of Belgian nationality, regardless of civil status and born in the period 1951-1970;

b) Eight independent samples for the Brussels Capital Region: birth cohorts 1951-1970, regardless of civil status and from the following subgroups:

- French-speaking Belgians (400 men and 400 women)
- Dutch-speaking Belgians (400 men and 400 women)
- Other Europeans (400 men and 400 women)
- Moroccans (400 women)
- Turks (400 women).

Other nationalities were excluded from the samples for the Flemish Region on the grounds of their minimal population share, and because of the fact that an inter-university research team had, in parallel with NEGO V, conducted a fertility survey among Muslim immigrants in which the NEGO V team was also represented. The composition of the Brussels population, and the policy concerns regarding the immigrant question, required the inclusion of ethnic variation in the Brussels sample.

A two-stage cluster sampling design was utilised in the Flemish Region. In the initial stage, municipalities were selected from various socio-economic strata. In each selected municipality, individuals were selected with random start. This way 2,975 women and 1,989 men were selected to take part in the survey (Callens, 1995a).

The sampling design for the Brussels Capital Region was based on disproportionalities. It consisted of eight independent samples of equal size ( $n = 400$ ). The 19 municipalities of the Brussels Capital Region form equal separate strata in each sample, thereby overcoming the geographical clustering of socio-economically homogeneous groups. Direct simple random sampling of individuals was applied in each of these 19 municipalities (Daelemans & Callens, 1994).

Thanks to the availability of NEGO V data for both the Flemish Region and the Brussels Capital Region, it is possible to study the Dutch-speaking population of Belgium, or the so-called "Flemish Community". Four samples are combined in the standard recode file for Belgium: 1. Belgian women living in the Flemish Region; 2. Belgian men living in the Flemish Region; 3. Dutch-speaking Belgian women living in the Brussels Capital Region; and, 4. Dutch-speaking Belgian men living in the Brussels Capital Region. As a consequence of the sampling design, the data have to be weighed (Lodewijckx, 1996). In this report weights are applied by region; base populations are rounded to the nearest integer.

## COLLECTION OF DATA

The NEGOSURVEY used two paper questionnaires:

a) the questionnaire that CBGS prepared for ECE's FFS project (Cliquet, 1987; Cliquet et al., 1992), and which was used in a face-to-face interview at the respondent's home. Respondents were questioned by interviewers of their own gender. Interviewers were recruited, instructed and supervised by CBGS staff. All interviewers attended a one-day training course before starting the fieldwork. Completed questionnaires were checked at the CBGS. This included careful examination and - where necessary - return to the interviewer for further explanation. As the NEGOSURVEY fieldwork was planned for 1991, there was no more time to await the final version of the questionnaire as proposed by the ECE. The structure of the Belgian FFS questionnaire therefore departs rather noticeably from the standard FFS questionnaire, but most SRF variables could be reconstructed (Lodewijckx, 1996).

b) a nationally adapted version of the Population Policy Acceptance (PPA) survey questionnaire (Moors & Palomba, 1989), handed by the interviewer to the respondent with the request to complete it after the interview and then mail it to the CBGS. SRF variables from records 91 and 92 (Population Activities Unit of the Economic Commission for Europe, 1993) originate from this questionnaire.

The survey in the Flemish Region was carried out between April and October 1991. About three-quarters of the fieldwork was completed in the first three months (Callens, 1995a). The survey of the Dutch-speaking Belgians in the Brussels Capital Region was carried out in 1992. About 80 per cent of the interviews were taken before July 1992 (Daelemans & Callens, 1994).

## SAMPLE BIAS AND NON-RESPONSE

Table 6.1 presents, for the Flemish Region, the distribution of the universe (panel a), the target sample (b), the sample before substitution (c), the corresponding non-response rate (d) and the sample after substitution (e), by sex, birth cohort and marital status. 887 of the 2,975 women selected for the survey and 670 of the 1,989 men were not interviewed. In other words, the non-response rate is 29.8 per cent for women and 33.7 per cent for men.

Among both men and women, the non-response can be ascribed in 7 out of 10 cases to a refusal to participate in the survey. In 2 out of 10 cases non-response is due to the fact that the persons selected could not be contacted, and in 1 out of 10 cases an interview was impossible because of sickness, language difficulties or some other reason (Callens, 1994a). Compared with non-response rates of other recent sample surveys, those of NEGOSURVEY come out at about average.

The response rate for both men and women shows no systematic variation with age. Differences exist however according to civil status: non-response is highest among divorced persons, lowest among married persons (women: 39 and 28 per cent; men: 44 and 32 per cent). Non-response is also higher in urbanised municipalities.

**Table 6.1**  
**The survey population and non-response**  
**NEGO V, Flemish region**

Birth cohorts	Women			Men		
	Single	Married	Previously married	Single	Married	Previously married
<b>a. Absolute number of eligible persons according to national statistics</b>						
66-70	166,400	30,989	178	197,847	9,160	18
61-65	73,350	143,308	4,054	125,146	103,295	1,570
56-60	27,809	175,500	11,692	51,162	163,019	8,098
51-55	14,453	169,215	15,733	26,659	166,400	13,399
<b>b. Number of persons in target sample</b>						
66-70	462	231	1	378	70	1
61-65	186	595	29	213	309	11
56-60	79	649	47	77	416	32
51-55	45	595	56	54	393	35
<b>c. Number of persons interviewed</b>						
66-70	323	157	0	265	41	0
61-65	114	441	21	121	221	7
56-60	44	490	28	44	286	16
51-55	22	414	34	32	265	21
<b>d. Percentage of target sample not interviewed<sup>a</sup></b>						
66-70	30.1	32.0	100.0	29.9	41.4	100.0
61-65	38.7	25.9	27.6	43.2	28.5	36.4
56-60	44.3	24.5	40.4	42.9	31.3	50.0
51-55	51.1	30.4	39.3	40.7	32.6	40.0
<b>e. Number of persons interviewed after substitution (= total number interviewed)</b>						
66-70	437	214	0	386	58	0
61-65	158	623	25	172	324	8
56-60	66	656	44	71	394	21
51-55	33.00	595	46	40	369	35

<sup>a</sup> Computed as  $100 \cdot (b-c)/b$ .

Source: Appendix, table 36.

NEGO V used a fieldwork method to compensate for non-response: stratified random substitution of non-respondents of the target sample by persons selected from a reserve sample. The success of this method depends on two conditions: 1) random substitution and 2) a sufficient number of attempts to contact non-respondents. The interviewers were instructed and supervised accordingly. Substitutions were made at random, but not always after sufficient contact attempts. Non-response of persons of the target sample was not offset entirely by substitution. Stratified replacement (cluster type) results in compensation of non-response, whereas random replacement (age, civil status) does not. There is no systematic compensation for the variables age and civil status (Callens, 1995a). In the future, a multiple stratified substitution procedure could compensate for the non-response for different variables simultaneously.

A total of 2,897 women and 1,878 men were interviewed. The question remains: how representative is the final NEGOS V sample (table 6.1, e). In terms of age, there is an under-representation of younger persons. Married men are likewise under-represented.

The non-response rate in the survey in the Brussels Capital Region is higher than in the survey carried out in the Flemish Region (52 per cent of Dutch-speaking women; 39 per cent of Dutch-speaking men). Roughly one quarter of the persons in the target sample could not be contacted. There is no obvious link between non-response and age of the person contacted. In this survey, too, the substitution method was used. A total of 339 women and 320 men were interviewed (Daelemans & Callens, 1994).

#### **EARLIER FFS-TYPE SURVEYS**

The CBGS, in co-operation with various universities, organised five surveys on fertility and family formation since 1966, the so-called NEGOS series of surveys. NEGOS I was held among Belgian married women under 41 living with their partners (Cliquet, 1967). In this survey, 2,856 women were interviewed. In NEGOS II (1971), information was collected from 3,397 women of Belgian nationality and aged 30-34. These respondents were selected on the basis of their year of birth, regardless of civil status or the nature of the partner relationship (Cliquet, 1975). NEGOS III (1975-1976) concerned 4,877 Belgian women aged 16-44, married or unmarried, and living in the Flemish Region (Cliquet et al., 1983). NEGOS IV (1982-1983) interviewed 3,101 married and unmarried 20-44 year-old women of Belgian nationality in the Flemish Community (Cliquet & Debusschere, 1984).

The successive CBGS fertility surveys have evolved as regards content. However, inter-survey comparison is still possible for a limited number of essential subjects, such as fertility, fertility regulation and the most traditional social status background and identification variables. Comparison is possible for some specific subjects, such as children's values, on the basis of three or four surveys. Different successive generations can be measured against each other thanks to the largely similar age groups investigated. Birth cohorts can also be followed, in some cases over periods as long as approximately 20 years (Cliquet, 1985; Cliquet et al, 1992; Lodewijckx, 1988).