

6. TECHNICAL ANNEX

The Swedish Family Survey of 1992/93 consists of eight cohorts. These are women born in 1949, 1954, 1959, 1964 and 1969 and men born in 1949, 1959 and 1964. The sample was drawn at random from the five female and three male single-year birth cohorts. The interviews took place at the end of 1992 and at the beginning of 1993. At the end of 1992, the respondents were respectively 23, 28, 33, 38 and 43 years old.

SAMPLING PROCEDURE

The survey was originally designed to include only two male cohorts, but during the process Statistics Sweden was given further resources to include another male cohort (men born in 1959). Therefore, the samples were drawn at two points in time. All cohorts except men born in 1959 were selected from The Swedish Register on the Total Population (the RTP-register), week 30 of 1992. Men born in 1959 were selected from the same register but from week 48 in 1992.

The method used was stratified random sampling with individuals as sampling units, and the year of birth and sex as stratifying variables. This method of single-year birth cohorts was adopted to get a sample suitable for life course analysis and to make it possible to identify possible effects of family policies. A total of 4,229 women and 2,177 men were included in the sample, altogether 3,318 women and 1,666 men were interviewed.

The main data collection method of the Swedish Family Survey of 1992/93 was face-to-face interviews, but some other methods were also used. Besides face-to-face interviews with the respondent, questionnaires were given to the respondent's partner. Data was also collected from registers. However, interviews constituted the major source for the data that was obtained and which is presented in this publication.

COLLECTION OF DATA

Data from the respondent's partner were collected by mail. This was done by asking all cohabiting respondents (whether married or not) to hand over a questionnaire for their partner's to fill out and to return to Statistics Sweden. The questionnaire included some of the questions which the respondent had already answered.

Furthermore, register data related to the respondent's income from 1968 to 1992 was collected. In 1997, Statistics Sweden intends to complete the survey by getting register data about what happened after the interview (for example, if the respondent gave birth or married in the period 1992-1997).

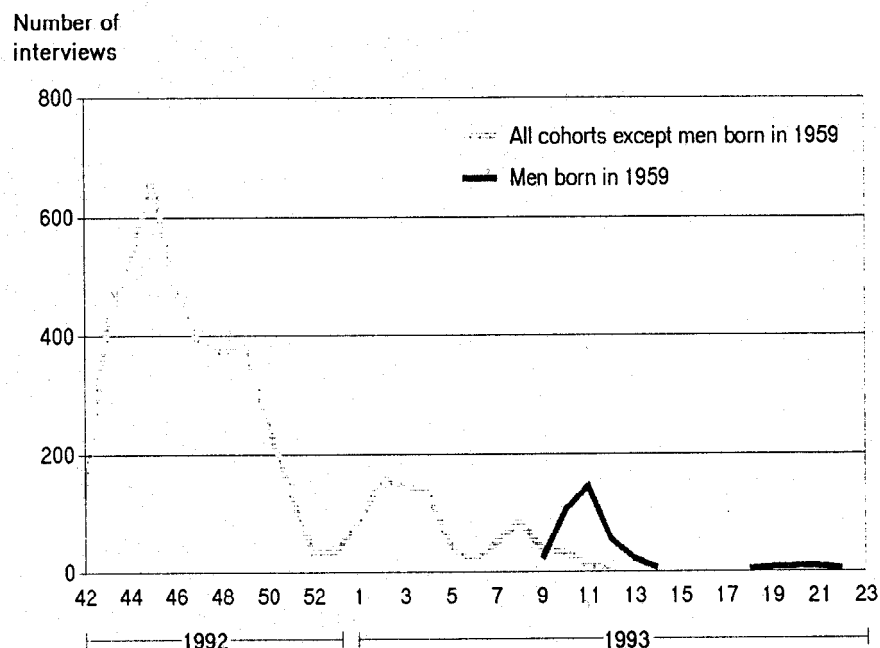
Data from the interviews were collected both by using laptop computers and paper questionnaires. The computerised questionnaire consisted of questions on such topics as: the family in which the respondent was brought up in; the respondent's household at the time of the interview; childbearing; adoption; parenthood; childbearing plans; cohabitation and marital history; and attitudes. At a later stage during the interview process, a paper-based scheme known as the Education and Employment Scheme, was used by the

interviewer to obtain data on the respondent's previous activities from the age of 17 until the time of the interview. These questions covered issues such as work, studies and parental leave. Lastly, a paper questionnaire was used in which the interviewer filled in details about the respondent's (and, if applicable, his or her partner's as well) present employment and level of education. Almost every interview was carried out as a face-to-face interview by an interviewer at the respondent's home. Only in exceptional cases were interviews conducted by telephone.

At Statistics Sweden the limit for a questionnaire is set to one hour per interview, which is seen as the longest time reasonable to ask of a respondent. The first questionnaire that was designed took one and a half hours to complete. In view of other surveys carried out by Statistics Sweden (from which we could get data) and the possibilities of using registers held by Statistics Sweden, we were able to cut half an hour off the questionnaire. Finally the average time of an interview was 57 minutes for women born in 1949 and 44 minutes for women born in 1969. The average time for men was a few minutes shorter.

The interviewing was done by the regular staff of interviewers at Statistics Sweden, only female interviewers were selected. All interviewers attended a one-day training course before starting with the fieldwork. Figure 6.1 shows that a majority of the interviews (62 per cent men and 65 per cent women), were conducted in the ordinary field period, between week 42 and 52 in 1992. Another 11 per cent men and 9 per cent women were interviewed at the follow-up. The addition of an extra male cohort (men born in 1959) meant that the fieldwork was prolonged, during which 3 per cent more men and 4 per cent more women were reached. The ordinary fieldwork period for men born in 1959 was from week 9 until week 14 in 1993, and the follow-up was conducted from week 18 until week 22.

Figure 6.1
Number of interviews per week



NON-RESPONSE

Table 6.1 shows the population, the number of sampled individuals, the over-coverage, the sample size, the numbers of interviews, the weights and the non-response rate for all cohorts in the survey. In total 6, 406 people were selected and 1,422 did not respond, which gives a non-response rate of 22.17 per cent. The non-response rate was higher for men than for women, 23.47 and 21.57 per cent respectively.

Most instances of non-response were due to persons refusing to take part in the survey. In total, 17 per cent of those approached refused to take part in the survey, 4 per cent were not reached and 1 per cent could not take part in the survey due to sickness or other reasons. The pattern is the same in other surveys carried out by face-to-face interviews by Statistics Sweden. The difference in the non-response rate between women and men in this survey depended on the higher percentage of men that could not be reached or participate.

Table 6.1

The population (sample frame), sample (sampled individuals and sample size exclusive over-coverage), number of interviews, weights (approximate) and non-response rate for the Swedish Family Survey of 1992/93

Cohort	Population	Sampled individuals	Over-coverage ^{a)}	Sample size (exc. over-coverage)	Number of interviews	Weights (approx.) ^{b)}	Non-response rate (%) ^{c)}
Women							
1969 (23 years)	55 332	858	24	834	670	82.59	19.66
1964 (28 years)	64 441	858	10	848	659	97.79	22.29
1959 (33 years)	55 912	858	13	845	679	82.34	19.64
1954 (38 years)	56 333	858	12	846	643	87.61	24.00
1949 (43 years)	63 027	858	2	856	667	94.49	22.08
All women	295 045	4 290	61	4 229	3 317		21.57
Men							
1964 (28 years)	68 021	858	21	837	647	105.13	22.70
1959 (33 years)	59 309	500	7	493	381	155.67	22.72
1949 (43 years)	64 768	858	11	847	638	101.52	24.68
All men	192 098	2 216	39	2 177	1 666		23.47
Total	487 143	6 506	100	6 406	4 984		22.17

a) The RTP-register is updated six times every year. Due to time differences the sample frame (the RTP-register) does not completely represent the population. When the sample from RTP is matched with the current address register some over-coverage, due to e.g. emigration and death, is revealed.

b) Population divided by number of interviews.

c) Sample size (excluding over-coverage) minus number of interviews, divided by sample size (excluding over-coverage).

The non-response rate has been analysed according to variables available in the register on which the sample was based (RTP). In table 36 of the appendix, a comparison of the non-response according to marital status is presented and, as in most surveys, the non-response is larger among unmarried people than among married people, especially in the older cohorts. The same is true for previously married people, they have a larger non-response rate than the married. For men the non-response rate rises with the age of the cohort, but for women there is no such pattern among previously married. The non-response rate was higher among people with low incomes than among people with average incomes (125,000 SEK) or higher incomes. Especially among men there were big differ-

ences. Among men born in 1949 and with an income of 86,000 SEK or less, which is quite a small group, 57 per cent did not participate in the survey. This should be compared with men born in 1949 with an income of 200,000 SEK or more where 17 per cent did not participate. To some extent the income is related to work status (i.e. full-time, part-time or not working), and an income of less than 86,000 SEK a year most often means that the person has not worked full-time. We can assume that income is related to social status in a higher degree for men than it is for women. This is because a large proportion of Swedish women with small children are working part-time. That means that a low income for women can be explained by either a part-time job or a low-income job.

The non-response rate was higher among people living in densely populated areas such as Stockholm, Gothenburg and Malmoe, and lower among people living in thinly populated areas. The differences in non-response rate are shown in table 6.2.

Table 6.2
The non-response rate (%) for the Swedish Family Survey 1992/93 according to region

Cohort	Stockholm	Gothenburg	Malmoe	Other bigger cities	South middle district	North built-up areas	North thin populated areas
Women							
1969 (23 years)	27.39	15.56	20.00	19.87	18.59	0.00	18.75
1964 (28 years)	26.42	29.11	22.73	22.44	18.05	13.16	7.69
1959 (33 years)	23.12	24.36	26.53	18.95	15.89	9.09	18.18
1954 (38 years)	30.68	22.50	19.23	25.68	21.66	11.63	15.22
1949 (43 years)	31.55	16.88	21.57	17.18	24.68	20.00	21.54
Men							
1964 (28 years)	27.34	19.32	19.44	22.83	21.48	15.38	22.45
1959 (33 years)	28.43	22.50	25.00	23.93	12.64	22.86	23.33
1949 (43 years)	28.17	33.72	23.08	22.68	26.92	11.36	14.63

As table 6.3 illustrates, the non-response rate is a bit lower among people born with Swedish citizenship than among those born as foreign citizens. For some people born abroad, this could be due to difficulties with the Swedish language, although there were interpreters available for the most common foreign languages in Sweden.

Table 6.3 - The non-response rate (%) for the Swedish Family Survey of 1992/93 according to citizenship

Cohort	Born with Swedish citizenship ^a	Swedish citizens in 1967 or later	Foreign citizens
Women			
1969	19.20	19.40	25.00
1964	22.70	16.90	23.61
1959	19.55	17.74	22.39
1954	23.68	24.14	27.14
1949	21.76	24.19	24.07
Men			
1964	21.62	30.91	26.58
1959	21.80	26.67	29.27
1949	22.81	40.43	35.59

^a Includes persons born as foreign citizens but who became Swedish citizens before 1967.

In order to take all available variables (sex, cohort, marital status, region, citizenship, income) into account at the same time, the non-response has been studied by multiple logistic regression analysis.

Briefly, the results show that, when taking all variables into account: men have a higher non-response probability than women; younger cohorts have a higher non-response probability than older cohorts; not married and previously married people have a higher non-response probability than married; inhabitants of the three most densely populated cities in Sweden (Stockholm, Gothenburg and Malmö) have a higher non-response probability than people living in other parts of Sweden; people living in thinly populated areas have a lower non-response probability than people living in middle-sized cities; and lastly, the lower the income, the higher the non-response probability.

The register (RTP) lacks information about the number of children that a respondent may or may not have. Instead, a comparison of the respondents in the Swedish Family Survey of 1992/93 with the Swedish Total Register of Fertility has been made. Figure 6.2 gives the average number of children per 1000 women as recorded by the Swedish Total Register on Fertility (TRF) and the Swedish Family Survey of 1992/93 (SFS) by cohort and age, and shows that the average number of children per 1000 women is slightly overestimated in the survey.

The first family survey in Sweden was carried out by Statistics Sweden in 1981. It was mostly focused on fertility and was called the Swedish Fertility Survey. Women born between 1936-1960 were interviewed (face-to-face) and the sample included 4,966 women of whom 4,300 participated in the survey (non-response rate 13 per cent). Four years later, in 1985, information was also collected from men. Questions were sent by mail to a sample of 4,000 men aged 20-48 years of whom 3,171 answered. The non-response rate was 21 per cent.

The Swedish Family Survey of 1992/93 is partly a follow-up to the two earlier surveys, although the results are not fully comparable as there are differences in variable content and sample design. For the 1981 survey, we had to choose between, on the one hand, a few single-year birth cohorts, and on the other hand all birth cohorts in a rather wide interval. We decided to adopt the latter method. The sample was drawn from The Swedish Central Population Register (RTP) by simple random sampling from each of five strata. Each stratum consisted of a five-year birth cohort which constituted a target population of its own. In the youngest (1956-60) and the oldest (1936-40) stratum 800 women each were selected. In the three middle strata, 1,200 women each were selected. This sample design made it possible to study more than only a few birth cohorts. As earlier mentioned, the method used in the 1992/93 survey is a single-year birth cohort design, which gives better conditions for life history analyses and for studying effects of changes in society (e.g. family policies).

The 1992/93 survey included both women and men. As mentioned earlier that was not the case for the 1981 survey which only included women. The 1981 survey was, however, supplemented in 1985 by a mail survey among Swedish men of age 20-48 years.

While previous surveys concentrated on childbearing and factors

SAMPLE BIAS

EARLIER FFS- TYPE SURVEYS

thought to be connected with fertility, the 1992/93 survey instead concentrated on how to combine different aspects of life, and it is for this reason that the Education and Employment Scheme is central in this survey. The 1992/93 survey also includes more questions on attitudes than previous surveys. In order not to make the 1992/93 interview too time consuming, we did not include all previous questions of 1981. Questions on child care and contraception were, for example, excluded.

Figure 6.2
Average number of children per 1000 women according to the Swedish Total Register or Fertility (TRF) and the Swedish Family Survey of 1992/93 (SFS) by cohort and age

