Population and Family in the Low Countries 1994

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Population and Family in the Low Countries 1994

Selected Current Issues

edited by

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PREFACE

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This volume is the tenth edition in the series "Population and Family in the Low Countries". It is published by the Netherlands Interdisciplinary Demographic Institute (NIDI, The Hague) together with the Flemish Population and Family Study Centre (CBGS, Brussels), with the purpose to inform an international audience on results of demographic research in Belgium and the Netherlands. The series started in 1976. From 1991 on, it is published annually.

The current edition includes seven articles reflecting a selection of current research issues in the Low Countries. With permission of the Dutch and Belgian Governments the national reports submitted to the 1994 International Conference on Population and Development (Caïro) are also included in this volume. They provide up to date information on the official views at present of the Dutch and Belgian Government on demographic trends and population policy issues.

For *the Netherlands* an article was selected with results from Dutch longitudinal research on changes in the pattern and timing of the main life transitions during young adulthood for successive birth cohorts. Up to the 1940 birth cohort, a trend could be observed towards a standard life course of young adults, however, followed by a period of increasing flexibility in and destandardization of a young adult's life course. The article tests the hypothesis that there is a tendency towards increasing individualization in the life course of people *(Liefbroer and De Jong Gierveld)*. Two articles are of a socio-historical nature. The article of *Noordman* considers the role of eugenics in the delicate discussions during the 1930's (in discredit after the

second world war) on mental health, on reproductive and race hygienics but also in relation to population policy issues). The article by *De Gans* relates to about the same period (between the two world wars) and presents an interesting analysis of the developments in the methodology of population projections in the Netherlands. It demonstrates the important role of debates on population issues in discussions on the methodology of demographic forecasting. The article by *Willekens and Scherbov* does not relate to the Low Countries. It reviews the demographic situation in Russia and is accomplished as part of a cooperative project of the Dutch Population Research Centre at the State University of Groningen with the State Committee of Russia on Statistics in Moscow. In order to understand today's Russian demography, the article describes the historical population trends in Russia during the 20th century, emphasizing, however, recent changes.

The first article selected for *Belgium* also relates to young adults. The study presents an analysis of the interrelationship between differences in living arrangements and in value orientations and concludes that there is no separate and unique influence of socio-economic conditions on the values of people as assumed by economic theories. The data stem from the European Values Surveys (1990) and the study relates to a broad scale of value orientations with respect to religiosity, politics, civil morality, marriage and the family, gender roles *(Lesthaeghe and Moors)*. The article by *Callens* presents an analysis of data from the Fifth Fertility and Family Survey (NEGO V, 1991) in Flanders on changes in employment behaviour from a longitudinal point of view and accross the family life cycle. It appears that during the 1980s a structural change in employment took place resulting in a substantial increase in part-time work, especially among women. Although it is in particular motherhood that influences the change from full-time to part-time work, it is not clear if the recent growth of the level of female part-time employment has an influence on fertility. Finally, the article by *De Bourdeaudhuij, Geeraert and Van Oost* deals with school-based sex education in Flanders. It compares the views on this issue held by school principals, teachers and experts as well as of the pupils. Sex education remains important because it can contribute to prevent unwanted pregnancies, abortion, AIDS and other sexual transmitted diseases. The subject has clear tangents with population education aiming not only to spread knowledge on demographic processes and population issues but also to contribute to the promotion of responsible citizinship in relation to sexuality and fertility, parenthood and family planning, gender roles, primary relations and social networks.

Our thanks and appreciation goes to the authors and reviewers of this volume. We also like to thank all people at the NIDI- and CBGS-secretariat contributing to the production of the book, in particular Angie Pleit-Kuiper and Joan Vrind for taking care of the linguistic and technical editing, and Jacqueline van der Helm for the final handling of the manuscripts.

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LIVING ARRANGEMENTS, SOCIO-ECONOMIC POSITION, AND VALUES AMONG YOUNG ADULTS: A pattern description for Belgium, France, the Netherlands, and West-Germany, 1990[1]

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Abstract. The article studies the associations between the various types of living arrangements of young adults (living with parents, living alone, cohabiting, marriage) and a large set of value orientations pertaining to religiosity, politics, civil morality, gender roles, and education values. Socio-economic characteristics and age are control variables. The selection processes (values codetermine choices in living arrangements) and affirmation (living arrangement codetermines values) are discussed, together with the need to collect panel data instead of proceeding with repeated surveys.

[1] The authors would like to thank the EVS-organizers for making available the various data sets, and Loek Halman in particular for the first exploratory tabulations.

H. van den Brekel and F. Deven (eds.), Population and Family in the Low Countries 1994, 1-56.

Keywords: Living arrangements; socio-economic position; values; adults; Belgium; France; Germany; the Netherlands.

1 | Introduction

Since the 1960s, lifecycle transitions among young adults have become more complex in virtually all Western countries (e.g. Bumpass, 1990; Rindfuss and Vanden Heuvel, 1990). New, intermediate states have been added, such as sharing or doubling up, premarital cohabitation or parenthood among cohabitants. The transitions between these states are no longer unidirectional since returns to previous states occur more frequently. Also the states themselves are less clearly defined. For instance, independent living and periodic returns to the parental 'hotel family' are often combined.

One of the main reasons for the emergence of the intermediate states (independent living, sharing, premarital cohabitation) among young adults is clearly prolonged education. We are referring here to the mere mechanistic effect: continued education, say between ages 20 and 24, results in complete or partial economic dependence on the family of origin which automatically postpones marriage and parenthood for most young people. Once education is finished and the lag it produced is taken into account, transitions to marriage or cohabitation with parenthood are often accelerated (see Lee *et al;* 1987). However, other theories postulate major additional effects.

According to the neo-classic economic theory (e.g. Becker, 1981), cohabitation, later marriage, and later parenthood are essentially the outcome of a general reduction in gains of marriage for women and of a substantial increase in the opportunity costs of motherhood. The latter stem from increased female schooling, greater earning capacity, and therefore enhanced female economic autonomy. This factor equally accounts for the rise in divorce and the decline of remarriage, both after a divorce or following widowhood.

So far, the explanations are predominantly oriented at those who have enjoyed better education. But the passage through the intermediate states is also found among other segments of the population, despite the fact that, at least in continental Western Europe, the new living arrangements appeared first among the better educated. In Easterlin's theory (Easterlin *et al;* 1990), postponed home-leaving, sharing or doubling up, and cohabitation are not the outcome of the valuation of the female human resource potential, but of

the combination of sustained consumption aspirations and deteriorating economic opportunities for new cohorts of young males. The intermediate states between home-leaving and marriage are added and the duration of residing in these states is prolonged, not only because of schooling, but also because of unfavourable labour market conditions. The view of Easterlin and colleagues, documented with US data, is essentially an economic, relative deprivation theory. It is bound to get a sympathetic ear in the Mediterranean countries, such as Spain or Italy, where home-leaving is postponed to a considerable extent in tandem with unfavourable labour market conditions.

The two economic theories presented above have been criticized on several points. According to Valerie Oppenheimer (1988), the intermediate states stem from marriage market conditions. Higher education for women and concommittant financial independence have increased the quality standards for what constitutes a 'minimally acceptable match'. Prolonged dating and cohabitation reflect a more careful search or a trial run in matching the two utility functions of the partners concerned. In the neo-classical view, diminishing returns to marriage for women results in larger proportions not entering marriage and parenthood. In Oppenheimer's view, there is only a postponement effect, not an economically-induced 'desinstitutionalization'.

The notion of quality is also central in social exchange theory (e.g. Rezsohazy, 1991) or economic transaction theory (e.g. England and Farkas, 1986). The quality of a relationship can be defined as the degree of satisfaction partners experience as the result of the incorporation of each other's needs and well-being into their own utility function. We are dealing here with 'giving and taking', mutual trust and respect, fidelity, and reciprocated understanding. In surveys probing into the various elements that are needed to constitute a successful partnership or marriage, these items get the highest scores (e.g. Harding *et al*, 1986; Lesthaeghe and Moors, 1992). Hence, aside from alterations in purely economic living conditions, also expectations of what partners can get out of a marriage or a union could have increased.

Support for the latter proposition stems from the rise of Maslow's (1954) 'higher order needs'. In Maslowian needs theory, the 'higher order needs' associated with self-fulfilment, political emancipation, personal recognition, and individual ethical autonomy emerge once the 'lower order needs' associated with basic economic and physical security are satisfied. Inglehart's (1970, 1990) measurement of post-materialism in the economic-political domain shows that the Maslowian 'existential needs' have been accentuated to a higher degree by each successive cohort.

Within the ethical and moral domain, individual autonomy manifests itself in further secularization, the refusal of institutional morality and ethical patronage, the accentuation of freedom of choice, the replacement of conformism by responsibility, and greater tolerance for the choices and life-styles of others. It was therefore no surprise to find that premarital cohabitation during the late 1960s and 1970s was almost a rite of passage for the 'new left' (Dumon, 1977; Lesthaeghe and Van de Kaa, 1986) in Belgium and the Netherlands. It was a manifestation of a refusal of the conventional 'bourgeois marriage' which was regarded as hypocritical in the sense that its conformism was more important than the quality of the relationship.

If 'postmaterialists' expect more individual recognition and satisfaction in matters related to private life, the evaluation of returns becomes a fundamental issue. If returns are unsatisfactory, reversibility should be an open possibility. Also, positions need to be calibrated repeatedly to work out suitable solutions. Making such positions and opinions overt therefore becomes a basic characteristic of new relationships, especially when two young adults are not only facing strictly domestic issues, but also elements of professional lives and their impact on the domestic sphere. This contrasts strongly with the more traditional marriages of their parents, based on a relatively clear script, with division of labour and male economic support and companionship being exchanged against female inputs in overall domestic quality.

The economic theories, respectively based on female economic autonomy and on relative economic deprivation among the younger cohorts, obviously connect the passage through the various types of living arrangements to the transitions in socio-economic position. These theories furthermore assume that value orientations are endogenous and are equally determined by the socio-economic profiles of individual life courses. In other words, they assume that there is no independent or autonomous additional effect originating in ideational factors. Yet, in Easterlin's version of the economic deprivation theory, ample attention is being paid to consumption aspirations originating during the socialization phase. By the same token, not only consumption aspirations, but a wide spectrum of value orientations can be generated during these formative years. Parents, peer groups, and professors all play a major role in the process. Hence, values developed during adolescence may equally direct ambitions, professional options, and ultimately socio-economic positions.

To sum up, monocausal theories cannot do justice to the complexities involved in the emergence of new life cycle states. In the present paper, we shall try to document that:

- attitudes and values concerning religious, political, and ethical issues are still closely associated with the distribution of individuals over the various forms of living arrangements, and
- that these associations hold for both sexes and irrespective of socio-economic position.

In short, the basic aim of the paper is to show that ideational factors and aspirations regarding the nature of a relationship are necessary complements to the economic theories which have failed so far to incorporate them. In other words, the assumption of the endogeneous origin of these ideational factors, found in both the neo-classic theory of G. Becker and the relative deprivation theory of Easterlin, constitutes a major weakness of these theories.

2 | Data and limitations

The data used here stem from the European Values Surveys (EVS) held in 1990 in a number of Western countries. The main reason for the use of the EVS is its uniquely large body of value and attitudinal data, which is ideally suited for an exploratory analysis of this kind. We have retained the data for the Netherlands, France, West Germany, and Belgium, largely because these countries exhibit similar developments. There are of course major differences between them, with the Netherlands and France having more young adults living in premarital cohabitation than West Germany or Belgium. Also value-orientations differ, with again the Netherlands and France being more libertarian on moral and sexual issues. However, the data sets for the four countries have been pooled for reasons of sample size. In total, the data pertain to 1386 persons aged between 20 and 29 years. Once broken down according to living arrangement, the sample sizes obviously decrease, but our aim has been to have about 100 respondents in each category. The resulting sample sizes are shown in *Table 1*.

Table 1. *Sample sizes according to age group and living arrangements in the weighted pooled EVS surveys of Belgium, France, the Netherlands, and West Germany, 1990*

	Age group		Total
	20-24	25-29	
Living arrangement			
- single, living with parents	343	85	428
- single, not living with parents	166	146	312
- with partner, cohabiting	115	145	260
- with partner, married	79	307	386
Total	703	683	1386

Before pooling the four national data sets, we inspected the association between the living arrangements and the relevant value characteristics. In almost all instances the national differentials went in the same direction, and differences in orders of magnitude are largely due to the small national sample sizes. It would be interesting to compare the present results with the pooled data for Denmark and Sweden and with those of the UK (Northern Ireland included) and Ireland. The analysis for Spain, Portugal, and Italy, however, is hampered by the fact that few respondents would be found in the intermediate states ('single, not living with parents', or 'cohabiting') as illustrated in the appendix (*Table A.1*).

From the EVS data, it is possible to distinguish between the following living arrangements:

- single, living with parents;
- single, not living with parents (but *without* distinction between living alone or sharing);
- with partner, cohabiting;
- with partner, currently married (divorced omitted from analysis).

Regrettably, no questions were asked about previous states. As a result, no distinction could be made for the currently-married between those who ever and never cohabited. Such a distinction would undoubtedly have elucidated differences in value orientations within the category of the currently married respondents.

In pooling the four national data sets, a weighting procedure was used so that the proportions of the respective national populations are respected. As a result, the Dutch and Belgian samples contribute considerably less to the weighted pooled sample than the West German and French data sets.

3 | Values and living arrangements: the problem of causality

The main problem with the strictly cross-sectional nature of the present data set is that no causal inferences are possible. The value orientations, living arrangements, and socio-economic positions are all measured simultaneously. Hence, it is impossible to decompose the overall statistical associations into a *selection effect* and an *affirmation effect*, respectively. By the selection effect, we refer to the mechanism whereby individuals select themselves over the various living arrangements, depending on their *prior* value orientations. By the affirmation (or negation) effect, we mean the *subsequent* reinforcement (or weakening) of values, depending on living arrangements or socio-economic position. The associations measured in this cross-section obviously capture the whole of this recursive process, but not the constituent parts of it.

There are two ways of measuring the selection effect more adequately. First, retrospective questions can be introduced pertaining to earlier positions. In this way, a number of authors (e.g. Kiernan, 1992) have been able to document that the likelihood of earlier home-leaving and subsequent cohabitation increases substantially for persons with divorced or remarried parents. Retrospective questions pertaining to values that were held in the past have highly questionable validity, so that this avenue of research is almost entirely closed for our purposes. In the present data set, there is only one useful retrospective question that can be used to document the existence of a value-based selection process. This question pertains to whether or not the respondent had received a religious education. We shall therefore devote special attention to this particular item.

The second, and much more promising, way to handle the selection and affirmation issues is provided by a panel design. The respondents in the 1990 round of the EVS can be reinterviewed several years later, and changes in living arrangements occurring during the interval can then be related to the 1990 value measurements (selection). Conversely, a readministration of the value questions in the second wave will also allow us to study the affirmation or negation effects, depending on the changes in living arrangements that have been recorded during the interval. We would therefore strongly recommend the addition of a second wave in the near future for the younger respondents in the 1990 round, particularly since these persons are likely to have had more frequent transitions in living arrangements and socio-economic positions than the older respondents.

To sum up, except for one particular item, we shall only be able to describe the *overall association* between value orientations, socio-economic positions, and living arrangements with the present data set. In subsequent multivariate analyses involving these three variables, the choice of a dependent variable is totally arbitrary. The reader is therefore strongly urged *not* to give any causal interpretation (either pure selection or pure affirmation) to these associations. On the other hand, the present data are adequate to perform controls for socio-economic position variables. In other words, we can inspect whether or not the association between value orientations and living arrangements continue to emerge once the effect of socio-economic position has been eliminated. The resistence to such a control would strongly suggest that effects of value orientations are not purely endogenous as the economic theories assume.

4 | Value orientations according to living arrangements: overall results and controls for socio-economic position

This section covers the following domains of value orientations:

- religious values (15 items)
- political values, including the Inglehart scale (14 items)
- political party preference
- factors perceived as contributing to a successful marriage (12 items)
- attitudes concerning working women and mothers (6 items)
- importance of children, socialization values (15 items)
- attitudes concerning public morality (15 items)
- attitudes toward sexuality (8 items)

- life satisfaction indicators (13 items)

In a first set of tables, only the orders of magnitude are described, together with i) the differences between unmarried respondents living with their parents and those not living at home, and ii) the differences between cohabitants and married respondents. At this point, no significance tests are reported, but differences in percentages of 7 points or more are all significant at the 0.05 level.

The second set of tables presents the results of logit regressions performed on a selection of items. The logit regressions are all based on the simple additive model with the effects of living arrangements (4 categories) and of socio-economic position (4 or 5 categories, depending on sex). These socio-economic categories are:

- employed or employers: professionals, senior and middle level white collar;
- employed: blue collar and junior white collar workers;
- housewives (for women only);
- students;
- unemployed.

The results in these tables are given in the form of relative risks (exp. B), by living arrangement, and controlling for socio-economic position as just specified. The reference category is the group of single respondents still residing with their parents ('home-stayers').

4.1. Religious values

A recurrent finding in earlier research has been the association between higher degrees of secularization and opting for a period of cohabitation. This finding has been reported for the USA (Tanfer, 1987; Thornton and Camburn, 1987), Canada (Rao, 1989), Australia (Khoo, 1987), France (Villeneuve-Gokalp, 1990), the Netherlands (Liefbroer, 1991), and Belgium (Lee *et al.*, 1987). The striking feature here is that the association was not only strong in the late 1960s or 1970s when cohabitation was beginning to emerge in these countries, but that it still holds in a virtually unaltered fashion. The data presented in *Table 2* bear witness to this effect, particularly when cohabitants are compared with currently married respondents. Of the 15 items considered, 10 produce differences in excess of 10 percentage points, with the largest being the belief in God (31 percentage points less

Table 2. Indicators of religiosity according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1386)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
	%						
A. Attends religious service at least once a month (a)	15	12	-3	16	5	-11	13
Never, practically never attends a religious service	40	44	+4	42	62	+20	46
B. Gets comfort and strength from religion (b)	26	25	-1	36	21	-15	27
C. Prays to God outside religious services (c) often + sometimes	28	23	-5	35	17	-18	27
D. Believes in ... (positive answers							
- God	58	49	-9	69	38	-31	55
- Life after death	41	44	+3	44	42	-2	43
- Soul	65	67	+2	56	59	+3	62
- Devil	12	15	+3	17	14	-3	14
- Hell	11	13	+2	12	10	-2	11
- Heaven	27	25	-2	33	20	-13	27
- Sin	45	39	-6	47	31	-16	42
- Resurrection	29	24	-5	30	19	-11	12
- Re-incarnation	27	29	+2	19	33	+14	26
E. Brought up religiously (positive answers)	61	54	-7	59	43	-16	56
F. Considers shared religious belief as very important for a succesful marriage (d)	7	9	+2	11	2	-9	8

(a) Excluding weddings, christenings and funerals, (b) Response categories were; yes, no, don't know, (c) Response categories were: often, sometimes, hardly ever, only in times of crisis, never, don't know, (d) Respondents were to pick up to 5 qualities in a list of 10.

among cohabitants than married), the non-attendance of religious services (+20 points), the saying of prayers (-18 points), the belief in the notion of sin (-16 points), and the drawing of comfort and strength from religion (-15 points). Parental secularization also played a major role in currently being selected into cohabitation since fewer cohabitants (-16 points) than married persons report having been brought up religiously.

By contrast, the differences between cohabitants and married respondents almost vanish for a few items pertaining to particular traditional beliefs, such as life after death (-2 points), the devil (-3 points), and hell (-2 points). The situation is reversed with respect to the belief in the soul with slightly more cohabitants adhering (+3 points), and particularly with respect to the belief in reincarnation (+14 points). The survey did not probe into other metaphysical and para-psychological beliefs, so that we cannot extrapolate the stronger belief in reincarnation among cohabitants toward the paranormal in general.

The religiosity dimension is, on the other hand, much weaker when single persons residing and not residing with parents are compared. The only major distinctions are a weaker belief in God among the single home-leavers (-9 points) and fewer of them being brought up religiously (-7 points). Also praying (-5 points) and the belief in sin is slightly weaker among them (-6 points). Furthermore, it should be noted that the responses of those without a partner are situated between those of cohabitants and married individuals (results in columns 1 and 2 between those in columns 3 and 4). Hence, it seems that the secularization dimension is particularly operative in the choice of type of union (selection) and/or that the choice of the latter tends to polarize the opinions with respect to religiosity (assertion).

In *Table 3*, a control for socio-economic position has been introduced for a selection of these religiosity items. The following contrasts according to living arrangement remain intact and significant after these controls:

- Among both sexes, cohabitants systematically have the lowest risks of believing in God or in sin and of having moments of prayer, whereas married persons have the highest relative risks.
- The belief in reincarnation is significantly stronger for single male home-leavers and cohabitants, whereas it is significantly lower for married women.

Table 3. *Selected religiosity items - Likelihood by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990*

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
Believes in God	1.00	.75	.52*	1.86*
Believes in Sin	1.00	.82	.47**	1.48
Prays outside church	1.00	.75	.60	1.07
Believes in reincarnation	1.00	1.89*	3.29**	1.03
		Women		
Believes in God	1.00	.69	.39**	1.54
Believes in Sin	1.00	.94	.69	1.35
Prays outside church	1.00	.97	.59	1.85*
Believes in reincarnation	1.00	.84	.72	.35**

* Significant at .05 level, ** at .01 level

On the whole, these patterns confirm that the zero order associations documented in Table 2 are not merely the by-product of differences in socio-economic position.

The selection effect stemming from parental religious orientation, and measured by the item 'having received a religious upbringing', has also been subjected to a similar control. Among men, 39% of the home-leavers have had a religious upbringing against 46% of home-stayers. After controlling for socio-economic position and age (introduced as a set of categorical dummies in order to allow for non-linearity) in an analysis of variance (i.e. multiple classification analysis), this 7 percentage point difference becomes an 8 point difference in the same direction. Similarly for women, an original 10 percentage point difference is reduced to a 7 point difference after these controls. The contrast between cohabiting and married men was initially slightly larger: 50% of the married men reported a religious upbringing

against 41% of cohabiting men. After the controls, the contrast increases to an 11 percentage point difference. Among women with a partner, the zero-order effect was initially 16 percentage points, with 46% of married women reporting a religious upbringing against only 30% of cohabiting women. This contrast is reduced to a 12 percentage point difference after controls, but the difference remains highly significant (.01 level). Hence, these checks strongly suggest that a very substantial part of the differences in religiosity according to living arrangement are due to a pure selection effect and are attributable to parental religiosity or secularization. These findings are furthermore perfectly in line with those reported elsewhere for the Netherlands (Liefbroer, 1991) and Belgium (Lee *et al.*, 1987) using a similar question.

To sum up, home-leavers and especially cohabitants have generally received a more secularized upbringing and still exhibit, on average, lower degrees of religiosity than the others, particularly the married respondents, irrespective of their current socio-economic position. By contrast, this lower degree of traditional religiosity seems to be associated with a stronger belief in reincarnation, particularly among male home-leavers and cohabitants.

4.2. Political attitudes

Differences with respect to political attitudes are studied in this paper via the approval of emancipation movements (human rights, anti-apartheid, women's liberation) and of the 'green' agenda (ecology, anti-nuclear, disarmament movements), by the Inglehart 'materialist-postmaterialist' scales and by preferences for political parties.

Table 4 contains the outcomes for the various political pressure groups. Again, the proportions expressing approval among the single living with their parents and those living separately fall generally between the proportions observed among the married and cohabitants. Except for the human rights and anti-apartheid movements, the differences between single-stayers and home-leavers are not large. A stronger polarization occurs when considering the contrast between cohabitants and married respondents, with cohabitants showing considerably greater support for all pressure groups, and for the women's liberation and anti-apartheid movements in particular. Hence, the responses according to living arrangement in Table 4 exhibit the same structure as those pertaining to religion in Table 2, with the stronger contrasts emerging between cohabitants and married couples.

Table 4. Attitudes toward political pressure groups, according to living arrangements; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1339)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) -(3)	(5)
Approves of:							
- Human rights movement	58	67	+9	61	68	+7	63
- Ecology movement	61	58	-3	56	63	+7	60
- Anti-apartheid movement	50	56	+6	51	60	+9	54
- Disarmanent movement	42	44	+2	41	46	+5	43
- Anti-nuclear movement	33	32	-1	35	38	+3	34
- Women's movement	21	21	0	18	27	+9	21

Response categories were 'approve strongly', 'approve somewhat', 'disapprove somewhat', 'disapprove strongly'; the figures above refer to the first two response categories.

The results of the Inglehart 'materialist' versus 'postmaterialist' distinction are reported in *Table 5*. Two operationalizations were used. In both instances, respondents are presented with four items, two of which contain a materialist concern for economic and physical security ('maintaining order', 'fighting rising prices' in set 1 and 'a stable economy' and 'fighting crime' in set 2), and the other two containing a postmaterialist concern with grassroots democracy and autonomy ('giving people more say in government', 'protecting freedom of speech' in set 1, and 'less impersonal and more humane society', 'society in which ideas count more than money' in set 2). At this point, it is essential to stress that Inglehart's term 'materialist' does *not* refer to high consumption aspirations (e.g. for luxury goods), as has been repeatedly misunderstood in economic literature, but only to *basic* economic and physical security. In each set, respondents are requested to select two items out of the four that are presented. 'Materialists' and 'postmaterialists' are respectively those respondents who choose the two materialist or postmaterialist items in each set. The others constitute the mixed types.

As expected, both home-leavers and cohabitants contain smaller percentages of 'materialists' and higher percentages of 'postmaterialists'. In this instance, the contrast already exists between single home-stayers and home-leavers, and does not widen anymore for set 2 when comparing cohabitants with married persons. Of all categories, married persons have the lowest proportion of 'postmaterialists' and the highest proportion of 'materialists', which is completely consistent with the findings reported for the early 1980s (Lesthaeghe and Meekers, 1986).

The distinctions continue to emerge with respect to political party preference. *Table 6* presents the results by country to allow for national differences in the political landscape.

The general picture across the countries is that single home-leavers and cohabitants, compared to home-stayers and married persons, have a considerably reduced preference for the Christian Democrats or the French Centre and a very pronounced preference for the Green parties. The shift in voting intentions among those in the intermediate living arrangements further benefits the Social Democrats in Belgium, the Communists and extreme left in France, and the various Liberal parties in the Netherlands and Germany. Regional parties in Belgium and the extreme right in all countries are less attractive to single home-leavers than home-stayers, but

Table 5. Inglehart 'Materialism-Postmaterialism' scale, according to living arrangements; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1328)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
Set 1					(%)		
% 'materialists choosing							
- maintaining order							
- *and* fighting rising prices	9	7	-2	18	11	-7	11
% 'postmaterialists' choosing							
- giving people more say in government							
- *and* protecting freedom of speech	35	45	+10	24	46	+22	36
Set 2							
% 'materialists' choosing							
- a stable economy							
- *and* fighting crime	29	14	-15	33	22	-11	25
% 'postmaterialists' choosing							
- less impersonal and more humane society							
- *and* society in which ideas count more than money	20	33	+13	13	27	+14	22

this is not necessarily so among cohabitants compared to married respondents. Finally, the percentages of uncommitted persons among home-leavers and cohabitants is generally smaller in all countries than among home-stayers and married persons respectively.

The relative aversion to the Christian Democrats among those in the intermediate living arrangements obviously stems from the more anti-establishment outlook of home-leavers and cohabitants, and from a reaction against the pro-family and pronatalist stands of the Christian parties. The large shift towards the Greens is entirely consistent with the more pronounced 'post-materialist' outlook of single home-leavers and cohabitants. The greater attraction of the Liberal parties, particularly in the Netherlands, but to some extent also in Germany and among cohabitants in Belgium stems from the fact that the economic individualistic outlook, as opposed to welfare state interventionism, does ring a bell among a presumably wealthier segment of those in less conventional living arrangements. In Belgium and France, however, this is more than matched, especially among home-leavers (who are presumably in a more precarious position), by a greater preference for the left.

The effects, after controlling for socio-economic position, are reported in *Table 7* for the various political and emancipation movements in the form of relative risks and their significance. In general, the contrasts relative to single 'home-stayers' are less marked than in Table 3 using the religiosity indicators. Nevertheless, the results that are significant operate largely in the expected direction. Cohabitants especially show an increase in the likelihood of approving these political or emancipation movements. This holds for the female cohabitants with respect to approval of the anti-apartheid movement, and for male cohabitants with regard to the human rights and women's liberation movements. By contrast, married women have a significantly lower likelihood of approving women's liberation movements, even after controlling for the fact that housewives are *overrepresented* in the category of married women.

On the whole, we conclude that living arrangements differentiate in the expected direction, again with cohabitants being the most distinct group. However, the differentiation with respect to the various political dimensions according to living arrangement are generally weaker than those observed for the religiosity/secularization items.

Table 6. Political party preference, according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
A. Belgium (N=510)							
- Christian democrats (CVP, PSC)	17	6	-11	21	6	-15	16
- Social democrats (SP, PS)	10	27	+17	26	36	+10	21
- Liberals (PVV, PRL)	25	21	-4	13	19	+6	20
- Green parties (AGALEV, ECOLO)	25	39	+14	20	31	+11	25
- Regional parties (VU, FDF)	2	0	-2	5	0	-5	3
- Extreme right (Vlaams Blok)	3	0	-3	2	0	-2	2
- No preference	19	6	-13	13	8	-5	14
B. Netherlands (N=225)							
- Christian democrats (CDA)	44	13	-31	18	10	-8	22
- Social democrats (PvdA)	22	11	-11	32	17	-15	25
- Liberals (VVD)	7	11	+4	4	18	+14	9
- Progressive liberals (D66)	13	32	+19	21	28	+7	24
- Green party	0	22	+22	5	10	+5	10
- Other	6	4	-2	7	3	-4	5
- No preference	9	7	-2	13	15	+2	11

C. Germany (N=368)

- Christian democrats (CDU, CSU)	32	20	-12	28	20	-8	26
- Social democrats (SPD)	38	40	+2	46	44	-2	41
- Liberals (FDP)	5	8	+3	8	13	+5	8
- Green party	15	23	+8	10	14	+4	15
- Extreme right (NDP, Republ.)	2	3	-1	1	2	+1	2
- No preference	7	5	-2	7	9	-2	7

D. France (N=159)

- Centre (UDF-RPR)	21	18	-3	15	3	-12	15
- Socialists	38	39	+1	42	26	-16	37
- Communist & extreme left	2	6	+4	8	10	+2	6
- Green parties	13	21	+8	17	45	+28	22
- Extreme right (Front Natl.)	4	3	-1	0	3	+3	3
- No preference	21	12	-9	19	13	-6	17

Table 7. *Selected political items - Likelihood by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990*

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
Approves of:				
- anti-apartheid movement	1.00	1.12	1.05	1.21
- human-rights movement	1.00	1.27	1.61*	1.39
- ecology movement	1.00	.68	.79	.75
- women's movement	1.00	1.08	2.24**	1.37
		Women		
Approves of:				
- anti-apartheid movement	1.00	1.53	2.13**	1.14
- human-rights movement	1.00	1.84**	1.58	1.19
- ecology movement	1.00	1.28	1.34	.74
- women's movement	1.00	.85	.80	.53*

* Significant at .05 level, ** at .01 level

4.3. Family, ethical and social values

This section covers the topics of the perceived prerequisites for a successful marriage, attitudes toward working women, the importance of children, socialization values, attitudes with respect to public morality, and attitudes toward sexuality.

Table 8 presents the results of the list of characteristics chosen as being important for a successful marriage. The respondents were presented with a list of 12 items and they had to indicate their preference, on a three-point scale, ranging from 'very important' to 'not very important'. The social exchange theory, as presented in the introduction, draws ample support from

Table 8. Factors perceived as contributing to a successful marriage; according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990

Considers as 'very important' for a successful marriage (a):	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
							(%)
- Mutual respect and appreciation	78	85	+7	83	78	-5	81
- Tolerance and understanding	75	82	+7	72	76	+4	76
- Faithfulness	74	62	-12	82	67	-15	72
- Happy sexual relationship	65	65	0	68	65	-3	66
- Children	42	31	-11	65	45	-20	46
- Sharing household chores	31	32	+1	31	38	+7	32
- Tastes and interests in common	39	36	-3	38	40	+2	38
- Adequate income	27	23	-4	32	24	-8	27
- Good housing	21	23	+2	34	23	-11	26
- Being of the same social background	13	10	-3	14	6	-8	11
- Sharing the same religious convictions	7	9	+2	11	2	-9	8
- Agreement on politics	4	6	+2	3	6	+3	4

the results, since the items most frequently quoted as being very important are all those that stress reciprocity: mutual respect and appreciation, tolerance and understanding, and faithfulness. Home-leavers and cohabitants score consistently lower on faithfulness than home-stayers and especially married couples, whereas the opposite holds for tolerance and understanding. This indicates that those in the intermediate living arrangements wish to maintain some latitude with respect to partner choice and commitment to this partner, and furthermore expect the partner to show tolerance and understanding for this weaker commitment. Home-leavers furthermore think more frequently that this can be combined with the maintenance of mutual respect and appreciation, but cohabitants tend to be more realistic in this respect. The latter score lowest on the item 'mutual respect and appreciation' as a consequence.

The item concerning a happy sexual relationship does not provide any major differences according to living arrangement, but the importance of children for a successful marriage exhibits a very strong discriminating power. Single home-leavers stress this item much less than home-stayers (-11 percentage points) and cohabitants much less than married respondents (-20 points). The items of faithfulness and children are consequently the most effective in the entire battery of questions for discriminating between groups defined by residential arrangements.

Further down the ranking, according to importance, come the items concerning material conditions (adequate income, good housing) and those pertaining to social homogamy. In these respects, the differences between the single respondents according to living arrangement are small, but cohabitants stress these material items much less than married couples. The same holds for social homogamy with respect to sharing the same social or religious background. But on common tastes and politics, i.e. the two non-traditional items, cohabitants score slightly higher than married respondents.

The remaining item, i.e. sharing household chores, lies about in the middle of the overall ranking, but before the items concerning material conditions and social homogamy. As expected, cohabitants attach a greater importance to such symmetry than married respondents.

On the whole, this battery of questions sheds light on the nature of relationships desired by the respondents. It is therefore intimately connected to what the respondents define as 'quality'. The results confirm that cohabitants attach particular value to symmetrical relations. They have weaker commitments

in terms of faithfulness, a greater orientation to the adult dyad and less to children, material conditions, or social and religious backgrounds. In other words, individual autonomy less hampered by children and material considerations are still more strongly represented among cohabitants in the four countries concerned.

The importance of children is analyzed in greater detail in *Table 9*. The differences reported here are again very striking and confirm, with three additional items, that home-leavers and cohabitants are far less oriented to having children than the others. In the fourth question pertaining to abortion, in case a couple does not want any children, the ethical and reproduction issues are combined. This item therefore produces the strongest contrast between those in the intermediate living arrangements and those either at home or already married.

The opinions about the qualities to be stressed in the education of children, presented in *Table 10*, clearly demonstrate the great attachment to individual autonomy and the reduced weight of conformism among those in the intermediate living arrangements. Single home-leavers and cohabitants score much lower on the items concerning good manners, obedience, thrift, hard work, and religious faith than single persons living with parents and married couples. By contrast, the former score higher on items that stress personality development, such as independence and imagination. The third group of items in the set pertain to social qualities: responsibility, tolerance, and unselfishness. Since only five items could be chosen from the entire list (as opposed to Likert-like ratings of each item) and since the conformism-related items were less attractive to those in the intermediate living arrangements, tolerance and unselfishness emerge as more attractive to home-leavers and cohabitants. This also agrees with the overall higher tolerance among them for minorities and for socially more deviant groups. However, home-leavers and cohabitants do not score higher on responsibility, which is correlated with their reduced support for traditional public morality as we shall now show.

In *Table 11*, fifteen items pertaining to civic morality are presented. In all instances, a 10-point scale has been used, with the score of 1 denoting 'never justified' and 10 meaning 'always justified'. The percentages considering the act as 'never justified' are compared across living arrangements.

The pattern of weakened public morality among those in intermediate living arrangements holds for virtually all items considered. Single home-leavers

Table 9. Importance of children; according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1368)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
							(%)
A. Having children is NOT very important for a successful marriage (a)	19	28	+9	8	25	+17	19
B. Ideal number of children is 3 or more	35	41	+6	41	36	-5	38
C. A women needs to have children to be fulfilled (b)	45	30	-15	55	42	-13	44
D. Approves of abortion if couple desires no children (c)	34	50	+16	31	54	+23	41

(a) Categories were: very important, rather important, not very important.
(b) Categories were: needs children, not necessary, don't know.
(c) Categories were: approve, disapprove.

Table 10. Socialization qualities according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1382)

		Without partner			With partner			Total
		living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
A.	- good manners	67	54	-13	67	55	-12	62%
	- obedience	27	32	+5	35	31	-4	31%
	- thrift	29	17	-12	38	22	-16	28%
	- hard work	29	17	-12	27	22	-5	24%
	- religious faith	9	9	0	12	2	-10	8%
B.	- independence	58	63	+5	53	62	+9	58%
	- imagination	35	51	+16	25	47	+22	38%
	- perseverance, determination	44	45	+1	38	42	+4	42%
C.	- responsibility	81	81	-0	81	79	-2	80%
	- tolerance and respect for others	80	86	+6	74	84	+10	80%
	- unselfishness	15	28	+13	28	30	+2	25%

(a) Respondents were requested to choose up to five socialization qualities as the more important ones from a list of 10.

Table 11. Attitudes concerning public morality according to living arrangements; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1375)

Considers as NEVER justified (a)	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
							(%)
- taking drugs marijuana or hashish	70	50	-20	85	62	-23	68
- buying something you know was stolen	48	41	-7	60	40	-20	49
- cheating on tax if you have a chance	31	20	-11	41	22	-19	31
- avoiding fare on public transport	34	26	-8	48	30	-18	38
- claiming unentitled state benefits	37	28	-9	46	30	-16	36
- fighting with police	29	17	-12	44	29	-15	31
- keeping found money	17	11	-6	26	14	-12	20
- joyriding	76	76	0	85	73	-12	78
- failing to report damage accidentally done	38	36	-2	60	50	-10	47
- political assassination	70	65	-5	72	62	-10	69
- accepting a bribe in course of duty	45	50	+5	56	51	-5	51
- littering in public place	59	55	-4	65	62	-3	61
- lying in self interest	13	12	-1	20	18	-2	16
- driving under influence of alcohol	56	54	-2	65	67	+2	60
- threatening workers who refuse to join strike	68	60	-8	67	71	+4	66

(a) Percentage with score = 1 (never justified) on acceptability scale (10 = always justified).

score substantially lower than home-stayers (differences in excess of 10 percentage points) on three items, but cohabitants score much lower (same criterium) than married persons on ten items in the battery of fifteen. Moreover, the proportions never justifying the acts of incivil behaviour are systematically lowest among single home-leavers. This not only holds for incursions of a material or economic nature (buying stolen goods, tax cheating, avoiding public transportation fares, claiming unentitled social benefits), but also for 'law and order' items (taking drugs, fighting with police, political assassination). Hence, the notion that the replacement of conformism by individual autonomy would also be accompanied by a greater sense of responsibility in public life needs to be qualified. Those in intermediate living arrangements may display, on average, a greater degree of political involvement than the others (see Tables 4 and 6), but this cannot be extended to matters concerning civic morality.

The attitudes concerning economic and domestic roles of women are presented in *Table 12*. The items have response categories varying from 'strongly agree' to 'strongly disagree'. All items that stress domestic duties score much lower among single home-leavers and cohabitants, whereas those that stress female economic autonomy and non-domestic roles are favoured. In addition, the pattern is particularly clear for the comparison between cohabitants and married respondents. Moreover, single home-leavers exhibit the strongest approval of female economic activity and autonomy and are most averse to restricting females to domestic roles.

Finally, the attitudes concerning sexual permissiveness are considered in *Table 13*. Again, the pattern is highly consistent across the various items. Home-leavers have systematically lower percentages than home-stayers *never* approving of married persons having an affair, of sexual contact with minors, of homosexuality and prostitution. They also have smaller proportions refusing homosexuals and AIDS patients as neighbours. More single home-leavers than home-stayers agree with complete sexual freedom and with abortion for non-married women. The contrast between cohabitants and married respondents goes in exactly the same direction, with the former having considerably greater tolerance for sexual permissiveness. Particularly the items of extramarital sex and complete sexual freedom distinguish cohabitants from married respondents.

The comparison of these numerous items, pertaining to a large variety of familial and social values, unequivocally show that home-leavers and par-

Table 12. Attitudes concerning working women and mothers, according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1330)

'Strongly agrees' or 'agrees' following statements: (a)	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
							(%)
A. A pre-school child is likely to suffer if his or her mother works	72	58	-14	66	56	-10	64
B. Being a housewife is just as fulfilling as working for pay	46	35	-11	62	36	-26	47
C. A job is alright, but what most women really want is a home and children	42	32	-10	56	46	-10	44
D. A working mother can establish just as warm and secure a relationship with her children as a mother who does not work	59	75	+16	61	69	8	65
E. Both husband and wife should contribute to household income	75	74	-1	62	76	+14	71
F. Having a job is the best way for a woman to be an independent person	82	82	+0	70	79	+9	78

(a) Response categories were: strongly agree, agree, disagree, strongly disagree, don't know.

Table 13. Attitudes toward sexuality according to living arrangement; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1386)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
A. Never approves of (a):							(%)
- married women/men having an affair	27	16	-11	43	20	-23	28
- sex under the age of consent (18 years)	19	16	-3	32	21	-11	22
- homosexuality	23	13	-10	26	18	-8	21
- prostitution	28	19	-9	29	22	-7	25
B. Agrees with: 'Individuals should have the chance to enjoy complete freedom, without being restricted (b)	46	52	+6	36	49	+13	45
C. Would rather NOT have as neighbours (c):							
- homosexuals	24	16	-8	21	11	-10	19
- persons with AIDS	16	10	-6	17	12	-5	15
D. Abortion justified if woman is not married (d)	27	45	18	22	34	+12	31

(a) Response categories were: 10-point scale from 'never justified' to 'always justified'; percentages above correspond with extreme score 'never justified'. (b) Response categories were: tends to agree, tends to disagree, neither/it depends, don't know. (c) Specific groups could be chosen as not desired as neighbours from a list of 14 groups. (d) Response categories were: approve, disapprove.

ticularly cohabitants, compared respectively to home-stayers and married persons, exhibit *on average* more libertarian ideas and value individual moral and economic autonomy to a significantly greater extent. The patterns across the various domains and measured for a large sample are simply too consistent to be denied. It should also be pointed out that, on certain dimensions, single young adults are less differentiated according to whether they are still residing with parents or not, than those with a partner depending on whether they are cohabiting or married. However, on a number of moral and economic issues, home-leavers exhibit even more libertarian and autonomy-related attitudes than cohabitants.

Controlling for social position in the logit regressions barely alters the outcomes of the ethical and civil morality items (see *Table 14*). Both married men and women have the highest risks of never accepting deviations from standard civil morality, and conversely, the lowest relative risks of agreeing with complete sexual freedom or accepting abortion for single women. The greatest tolerance for deviations or latitude with respect to these ethical issues is found among single home-leavers, followed by cohabitants. Intolerance towards homosexuality and AIDS patients are issues that produce considerable polarization among female respondents in particular. Again, female single home-leavers and cohabitants have the lowest likelihood of exhibiting such intolerance. The category of women with the highest likelihood is the single home-stayers and not the married women.

The patterning of the socialization values by living arrangement also remains largely intact after controlling for socio-economic position (see *Table 15*). Cohabiting men and single home-leavers have the lowest likelihood of choosing the conformism items (good manners, thrift) and the highest likelihood of stressing the autonomy items (independence, imagination). Much the same also holds for cohabiting women and female home-leavers. Married persons, on the contrary, show an inverse pattern, but are less often significantly different from the single home-stayers (i.e. the reference category). The item 'respect for others' is a correlate of the autonomy items, but 'responsibility' is not. Especially cohabiting women have a much lower likelihood of choosing 'responsibility' than any other category, even after controlling for socio-economic position.

The items pertaining to family issues continue to exhibit a classic patterning after similar controls (see *Table 16*). Among both sexes, respondents in the intermediate living arrangements (home-leavers, cohabitants) have the lowest

Table 14. *Selected civil morality and ethical items - Likelihood by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990*

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
- Never justified:				
- joyriding	1.00	1.45	.80	1.99*
- use of drugs	1.00	.37**	.47**	1.82*
- tax cheating	1.00	.75	.54	1.42
- Agrees with complete sexual freedom	1.00	1.46	1.40	.53**
- Justified: abortion if woman not married	1.00	2.39**	2.29**	1.02
- Intolerance towards:				
- AIDS patients	1.00	1.46	1.45	.81
- homosexuals	1.00	.69	.43**	.69
		Women		
- Never justified:				
- joyriding	1.00	.75	.97	2.51**
- use of drugs	1.00	.39**	.76	2.10*
- tax cheating	1.00	.47**	.80	2.14**
- Agrees with complete sexual freedom	1.00	1.12	.95	.89
- Justified: abortion if woman not married	1.00	2.19**	.91	.72
- Intolerance towards:				
- AIDS patients	1.00	.08**	.31**	.40**
- homosexuals	1.00	.24**	.22**	.43**

* Significant at .05 level, ** at .01 level.

Table 15. *Selected items concerning socialization - Relative risks by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990*

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
Stressing:				
- good manners	1.00	.74	.39**	.77
- thrift	1.00	.57*	.36**	1.31
- independence	1.00	1.09	1.13	.92
- imagination	1.00	1.69*	1.69*	1.15
- responsibility	1.00	1.00	1.63	1.41
- respect for others	1.00	1.65	1.73	1.18
		Women		
Stressing:				
- good manners	1.00	.41**	.74	1.08
- thrift	1.00	.44**	.84	1.44
- independence	1.00	1.36	.96	.55*
- imagination	1.00	2.41**	1.99**	.60
- responsibility	1.00	1.08	.49*	.88
- respect for others	1.00	1.82	1.43	.74

* Significant at .05 level, ** at .01 level.

Table 16. Selected items pertaining to family values - Likelihood by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
- Important for success of marriage:				
- faithfulness	1.00	.41**	.67	1.58
- children	1.00	.93	1.03	3.54**
- sharing hhld chores	1.00	.89	1.50	1.62
- same tastes & interests	1.00	.76	1.49	.72
- Children needed for life fulfilment	1.00	.72	1.03	1.64**
- Child suffers if mother works	1.00	.58*	.76	.71
- Job best way assuring fem. independence	1.00	.84	1.05	.57*
		Women		
- Important for success of marriage:				
- faithfulness	1.00	.59*	.40*	.76
- children	1.00	.53*	1.41	2.18**
- sharing hhld chores	1.00	1.37	1.15	.99
- same tastes & interests	1.00	1.22	.96	1.14
- Children needed for life fulfilment 1.00	.57*	1.00	1.82*	
- Child suffers if mother works	1.00	.48**	.25**	.36**
- Job best way assuring fem. independence	1.00	1.71	.71	.59

* Significant at .05 level, ** at .01 level.

likelihood of choosing 'faithfulness' as important for a successful partnership or marriage. The items pertaining to the importance of children, either for the success of marriage or as an element for personal life fulfilment, show striking contrasts, with married persons stressing this need much more than any of the others. The notion that a child suffers if the mother works is particularly held by single persons who still reside with their parents. This item differentiates considerably less between respondents who have left the parental home, irrespective of subsequent living arrangements. The emphasis upon female economic autonomy exhibits the classic negative association with being married, even after allowing for the fact that fewer married women work.

The main conclusion to be drawn from the statistical controls for socio-economic position is that the original associations between living arrangements and the values considered in this section remain virtually intact. Once more, we must conclude that selection and/or affirmation processes are operating independently of socio-economic position, and that this holds for both sexes.

4.4. Life satisfaction

In this section, we hypothesize that non-conformism and individual autonomy with respect to both partner relations and extra-familial relations is associated with increased levels of frustration, uncertainty about the future, and uneasiness with one's actual situation. As a consequence, one can expect individuals in the intermediate living arrangements to exhibit *on average* higher degrees of dissatisfaction with life. Striving for 'quality' in relationships, combined with similar aspirations in the direction of self-recognition and self-fulfilment, seems an ambitious undertaking. Outcomes may not live up to such expectations.

The results for various indicators of life satisfaction, reported in *Table 17*, bear this out, particularly if comparisons are made between cohabitants and married individuals, i.e. among all those who have a tangible experience of living with a partner. We shall therefore compare these two groups first.

Cohabitants report more frequently than married persons any sentiments associated with restlessness, remoteness from other people or solitude, depression or boredom. They feel less frequently that things were going their way and more rarely had a sentiment of exaltation. They also think slightly more often about death and the meaning of life than married respondents.

Table 17. Individual emotions and life satisfaction according to living arrangement, respondentsaged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990 (N=1385)

	Without partner			With partner			Total
	living with parents (1)	not with parents (2)	difference (2) - (1)	married (3)	cohabiting (4)	difference (4) - (3)	(5)
A. During the past few weeks, did you ever feel... (a)							(%)
- so restless that you couldn't sit long in a chair?	48	42	-6	35	42	+7	42
- very lonely or remote from other people?	28	33	+5	16	28	+12	26
- upset because you were criticized	24	22	-2	23	26	+3	24
- depressed or very unhappy?	29	32	+3	21	29	+8	28
- proud because someone had complimented you on something you have done?	65	65	0	52	62	+10	61
- pleased about accomplishments	84	87	+3	78	77	-1	82
- that things were going your way?	54	57	+3	63	56	-7	58
B. How often, if at all, do you think about death? (b):	44	50	+6	46	50	+4	47
C. All things considered, how satisfied are you with your life as a whole these days? (c):							
- not satisfied (scores 1, 2, 3)	3	5	+2	0	6	+6	4
- satisfied (scores 8, 9, 10)	51	45	-6	57	45	-12	50

On the other hand, cohabitants took greater pride in accomplishments, thereby signalling their greater need for personal recognition. In terms of an overall life satisfaction rating on a 10-point scale, cohabitants locate themselves more frequently at the dissatisfied end, and considerably less often at the satisfied end of the scale than married respondents.

Among single persons not living with their parents, one could expect that their life satisfaction or lack thereof is related to a greater sense of loneliness, whereas among those still residing with their parents such feelings would be more connected to frustrations with parental interference. The results indeed show that home-leavers suffer more often from loneliness, and this seems to be translated in a slightly more frequent reporting of boredom and depression, more frequent thinking about the meaning of life and about death, and an overall higher dissatisfaction score. Home-stayers, on the other hand, report slightly more frequently that they are upset because of criticism, and their greater lack of freedom is reflected in greater temporary restlessness. The overall satisfaction with life is *on average* more positive than among home-leavers.

Across the entire battery of items collected in Table 17, the highest frequencies of items that signal dissatisfaction are located either in the category of single home-leavers or cohabitants. Married persons, on the contrary, systematically have the highest frequencies for positive evaluation and the lowest frequencies for negative evaluation of life satisfaction.

It seems therefore that life in the two intermediate living arrangements does not, *on average*, produce any greater happiness than in the two conventional states.

Controlling for socio-economic position is necessary before formulating final conclusions with respect to life satisfaction, since the unemployed obviously report the lowest satisfaction. Also, life satisfaction tends to increase with socio-economic status. However, several significant differences associated with living arrangement still emerge after this control, as reported in *Table 18.*

First and foremost, married persons, and particularly married women, are considerably less likely than others to score at the low end of the overall satisfaction scale, and less likely to report periods of loneliness, depression,

Table 18. Selected life satisfaction indicators - Likelihood by living arrangement and gender after controlling for socio-economic position; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990

	Single with parents	Single not with parents	Cohabiting	Married
		Men		
- Scores overall life satisfaction:				
- low (1, 2, 3)	1.00	2.90	4.11*	.07**
- high (8, 9, 10)	1.00	.91	.66	.87
- Often/sometimes think about:				
- meaning, purpose of life	1.00	1.43	1.70*	1.48
- death	1.00	1.93**	1.57	1.97**
- During past few weeks, ever felt:				
- lonely	1.00	.88	.84	.40**
- depressed	1.00	.63	.68	.61
- bored	1.00	.90	.88	.81
- proud about compliment	1.00	.89	.74	.57**
- pleased about accomplishments	1.00	1.62	1.29	.96
- life wonderful	1.00	.76	1.37	1.64*
		Women		
- Scores overall life satisfaction:				
- low (1, 2, 3)	1.00	1.02	.97	.07**
- high (8, 9, 10)	1.00	.61*	.68	1.25
- Often/sometimes think about:				
- meaning, purpose of life	1.00	1.01	.91	.88
- death	1.00	1.17	1.47	.92
- During past few weeks, ever felt:				
- lonely	1.00	2.48**	1.52	.68
- depressed	1.00	1.76*	1.08	.47**
- bored	1.00	1.74*	1.26	.37**
- proud about compliment	1.00	.82	.64	.39**
- pleased about accomplishments	1.00	1.06	.32**	.51**
- life wonderful	1.00	1.10	.76	1.25

* Significant at .05 level, ** at .01 level.

or boredom. But they are also less likely to report that they were proud or pleased because of a compliment or achievement. As stated before, this balance seems to presumably correspond with a more even and settled life.

Women in the intermediate states (single home-leavers, cohabitants) exhibit the lowest likelihood of scoring at the high end of the overall life satisfaction scale, and conversely, they also have the highest likelihood of reporting recent spells of loneliness, depression, or boredom. Men in the intermediate states have the highest relative risks of scoring at the low end of the overall life satisfaction scale, but this pattern is much less pronounced in the other items. Especially differences between married men and others are weakened when the items become more specific.

On the whole, the conclusions tentatively drawn from the results in Table 17 still hold after controlling for socio-economic position, as can be inferred from the results in Table 18.

5 | A synthesis

This section presents a synthesis by reducing the set of items to a number of underlying dimensions, and subsequently by relating these dimensions to gender, socio-economic position, and living arrangement. Again we shall take the value dimensions as a dependent variable, but the reader should bear in mind that we merely wish to *describe associations*, rather than to infer causality.

The underlying value dimensions were constructed by means of two successive rounds of principal component analysis (Varimax, orthogonal rotation of factors). In the first round, 30 items were brought together in 11 scales, and in the second round, these scales were reduced to three distinct factors. The results are presented in *Table 19* in the form of the correlations between the items and the three factors.

The analysis pertains to 1245 cases. Cases were deleted listwise (that is, if there were more than 5 items missing, or when all items were missing for one of the 11 subscales; otherwise, the remaining occasional missing values were recoded to the gender-specific mean values of the items).

Factor 1 in Table 19 clearly describes the dimension characterized by high religiosity and strict ethical morality. Factor 2 corresponds to right wing

political convictions in the sense of favouring law and order, and having an aversion to emancipation movements and sexual minorities. Other items, such as the 'law and order' items in the Inglehart scales and the items pertaining to intolerance toward racial minorities, equally correlate strongly with factor 2 (not shown in Table 19). Factor 3 describes conservatism with respect to gender roles.

Several items show significant correlations on more than one of the three factors. The importance of children, for instance, seems to be due to two types of motivations, i.e. those stemming respectively from high religiosity and from political right-wing inclinations. Conformism in socialization (e.g. 'good manners') is equally associated with both high religiosity and right-wing orientation, whereas the stress on individual autonomy in education (i.e. 'imagination', 'independence') is negatively related to these two dimensions. The item concerning the fulfilment of housewives is related to all three factors, and the importance of transmitting religious faith in socialization is positively correlated with both high religiosity and preference for inegalitarian gender roles.

The analysis proceeds by relating the three dimensions to socio-economic position and type of living arrangement by means of a Turkey median polish (Turkey, 1977). The analysis is done separately by sex. The median polish starts from the average scores for a particular dimension, recorded for the various cells, corresponding to the combinations of socio-economic position and living arrangement. These means are reported in the appendix (*Table A.2*), together with the standard deviations and sample sizes. Obviously, these three factors have a mean of zero and a standard deviation of unity.

A number of cells with small samples and corresponding to rare combinations of socio-economic position and type of living arrangement have been dropped from the analysis. For instance, the results for married students or for housewives in parental homes are considered as unknown. Volatile means based on few observations are thereby prevented from distorting the picture.

An example of a median polish is also given in the appendix (*Table A.3*). The analysis involves the following steps. First, the overall median value is determined and subtracted from the various cells. Then, column medians are determined and subtracted from the results of the first step. Then the same is done with row medians. The fitted values in a simple additive model

Table 19. Correlation coefficients between 30 indicators and three factors; respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany, 1990

	Factor 1	Factor 2	Factor 3
Scale 1: religiosity			
- Has moment of prayer outside church	.49	-.11	.24
- Believes in God	.56	-.11	.19
- Believes in sin	.32	-.04(ns)	.07(ns)
- Religious faith important in socialization	.43	-.10	.27
Scale 2: abortion			
- Abortion justified if no children desired	-.58	-.60(ns)	-.17
- Idem, if woman not married	-.57	-.13	-.12
Scale 3: requirements successful marriage			
- Faithfulness between partners	.49	.13	-.04(ns)
- Having children	.54	.19	-.09
Scale 4: civil morality			
- Joyriding never justified	.41	-.09	-.16
- Idem, drugs	.53	.12	-.07(ns)
- Idem, tax cheating	.46	-.06(ns)	-.11
Scale 5: values stressed in socialization I			
- Good manners	.32	.25	.00(ns)
- Independence	-.29	-.30	-.09
- Imagination	-.32	-.31	.01(ns)
Scale 6: political & emancipation movements			
- Approves of human rights movement	.11	-.51	-.12
- Idem, anti-apartheid movement	.15	-.55	-.05(ns)
- Idem, women's movement	.05(ns)	-.31	-.27
- Idem, ecology movement	.13	-.39	-.14
Scale 7: values stressed in socialization II			
- Respect for others	.03(ns)	-.40	.03(ns)
- Responsibility	.00(ns)	-.26	.04(ns)
- Thrift	.06(ns)	.53	-.07(ns)
Scale 8: intolerance towards sexual minorities			
- No AIDS patients as neighbours	.08(ns)	.41	-.07(ns)
- No homosexuals as neighbours	.09	.50	-.02(ns)

Table 19. (Continued)

	Factor 1	Factor 2	Factor 3
Scale 9: traditional female role			
- Women need children for life fulfilment	.23	.37	.00(ns)
- Housewife has equal fulfilment	.24	.35	.21
Scale 10: gender equality			
- Sharing same tastes & interests important for marriage	.06(ns)	-.05(ns)	-.50
- Approves of complete sexual freedom	-.17	-.09	-.47
- Sharing household chores important for marriage .03(ns)	-.14	-.54	
Scale 11: female labour force participation			
- Both partners should work	.01	.05(ns)	-.55
- Female work needed for independence	-.06(ns)	.01(ns)	-.50

Notes: missing values: listwise deletion;
(ns): not significant at .05 level.

are then the sum of the overall median and the corresponding row and column medians. The residuals (observed values minus fitted values) are the values left over after the median extractions.

The results are presented graphically in Figures 1 through 6. As already indicated, we have fitted an additive model, which assumes that there are no interaction effects between the 'independent variables'. This means that the effects of each of the socio-economic positions are not allowed to vary according to the particular combination with type of living arrangement (and vice versa). Such an additive fit leads to the rectangular representation in the various figures. These grids show the *fitted values* of a particular value-dimension (vertical axes) for each of the combinations of socio-economic position and type of living arrangement, assuming additivity of effects. These fitted values are compared to the observed ones in the figures: the residuals are represented in the form of thin vertical lines.

Better fits can occasionally be obtained by allowing for interactions, but throughout the analysis the larger residuals are equally associated with the cells having the smaller number of observations. Hence, we refrained from fitting peculiarities, and preferred to report deviations from the simple additive model.

Also note that the scales on the vertical axes are identical for all six figures.

5.1. Religiosity and ethical strictness

Figures 1 and 2 depict the relationship between the dimension of 'high religiosity and strict morality' and the two 'independent variables' for men and women respectively. For men, differences by socio-economic position are very small, with somewhat higher religiosity levels found among junior white collar and blue collar workers, and slightly lower religiosity exhibited by the unemployed. By contrast, the differences in religiosity and ethical strictness by type of living arrangement are very considerable, with married men having much higher values on this dimension than single home-leavers and particularly cohabiting men. The effects of type of living arrangement among women are of a similar magnitude as those recorded for men, but the effect of socio-economic position is much more pronounced for female respondents. This is partially due to the category of housewives with higher scores on religiosity and ethical strictness than employed women. At this point, it is worth mentioning that we were unable to link male socio-economic positions to the position of their partners (employed or not). We would expect that men with partners who are housewives would score higher on dimension I than those with employed partners. Most regrettably, the employment status of the partner was not recorded in the EVS 1990 survey.

The residuals also deserve further comment. First, there are large residuals for female cohabiting students and similar but smaller residuals for male cohabiting students or male student home-leavers. In all three instances, these categories have lower average scores on religiosity and ethical strictness than predicted by the additive model. Second, similar residuals for men and women are also found for the combination between being married and being a junior white collar or blue collar worker. This category scores higher on dimension I than predicted. Conversely, married persons with higher status employment score slightly lower on dimension I than inferred by the additive model.

Figure 1. *Scores on religiosity and strict ethics by living arrangement and social position; men, aged 20-29, in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*

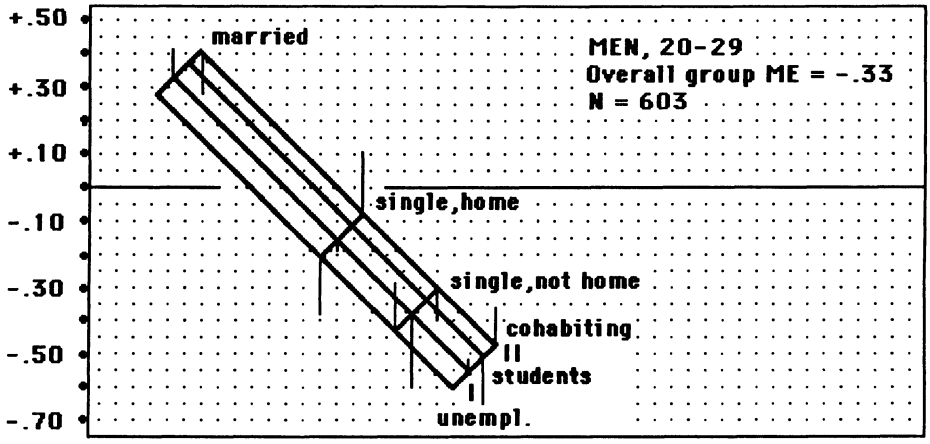
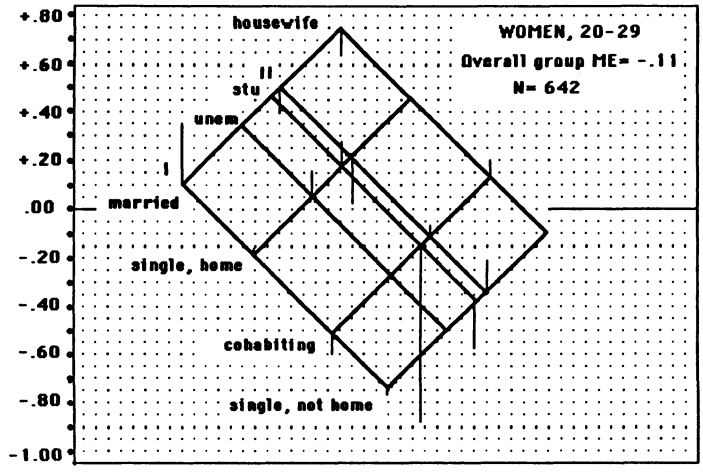


Figure 2. *Scores on religiosity and strict ethics by living arrangement and social position; women, aged 20-29, in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*



Dimension I: High religiosity, strict ethics.

I = Employer, managerial, professional, middle white collar;
II = Lower white collar, blue collar.

5.2. Right-wing political convictions and intolerance

The results for right-wing political convictions and intolerance toward minorities are shown in *Figures 3 and 4*. For men, differences according to both socio-economic position and type of living arrangement are small, with only the single home-stayers having slightly higher scores and students having lower scores. The picture for female respondents is very different: both living arrangement and socio-economic position are associated with striking differences on the right-wing political dimension. Married women score, on average, much higher than cohabiting women or female single home-leavers. Unemployed women show this tendency as well, in strong contrast to female students. Equally noteworthy is the fact that the average scores of higher status employed women are lower than those of housewives or lower status employed women. This distinction vanishes, however, for female single home-leavers (see residuals), with higher status employed women having a slightly higher average score than lower status employed women.

A second feature of the residuals for both sexes is that the combination of being a student and either being a single home-leaver or cohabitant leads to average scores on right-wing political orientation that are much lower than predicted by the additive model. A similar feature was also found for religiosity and moral strictness.

5.3. Traditional gender roles

The results for the third dimension, i.e. a preference for traditional gender roles, are presented in *Figures 5 and 6*. For men, the differences according to socio-economic position are again very small, with men employed in junior white collar or in blue collar jobs holding *on average* a slightly more conservative position, and those employed in higher social status jobs a slightly more egalitarian view. The differences according to living arrangement are more pronounced, with averages for married men and cohabiting men being at the more inegalitarian and egalitarian ends respectively. Taking the residuals into account, the differences for married men increase, depending on whether they belong to the lower socio-economic position (more inegalitarian than predicted) or to the higher positions (more egalitarian than predicted). Conversely, the effects of socio-economic position among cohabiting men are reversed compared with those implied by the additive model.

The outcomes for female respondents show a somewhat greater contrast depending on employment status: housewives hold, on average, the most

Figure 3. *Scores on political right (law & order, anti minorities) by living arrangement and social position; men, aged 20-29 in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*

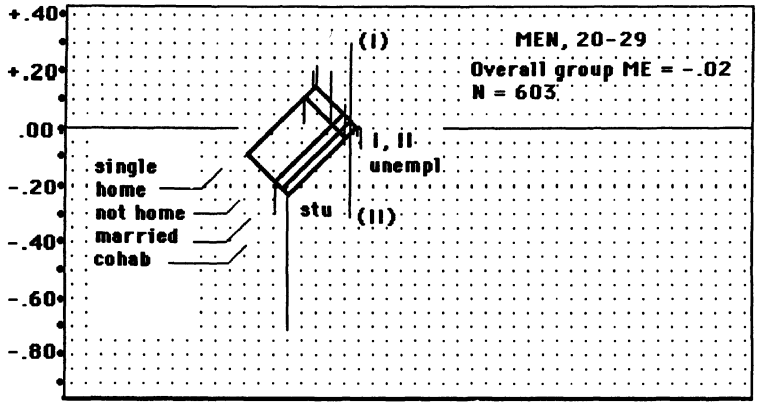
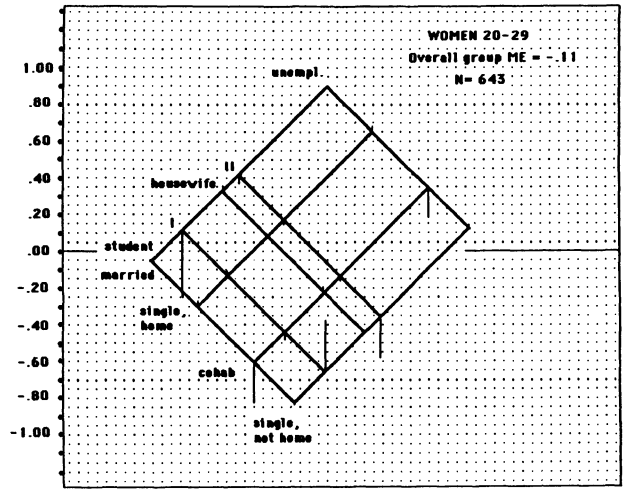


Figure 4. *Scores on political right (law & order, anti minorities) by living arrangement and social position; women, aged 20-29 in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*



Dimension II: Political right, law & order, anti sexual and ethnic minorities.

I = Employer, managerial, professional, middle white collar;
II = Lower white collar, blue collar.

Figure 5. *Scores on traditional gender roles by living arrangement and social position; men, aged 20-29 in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*

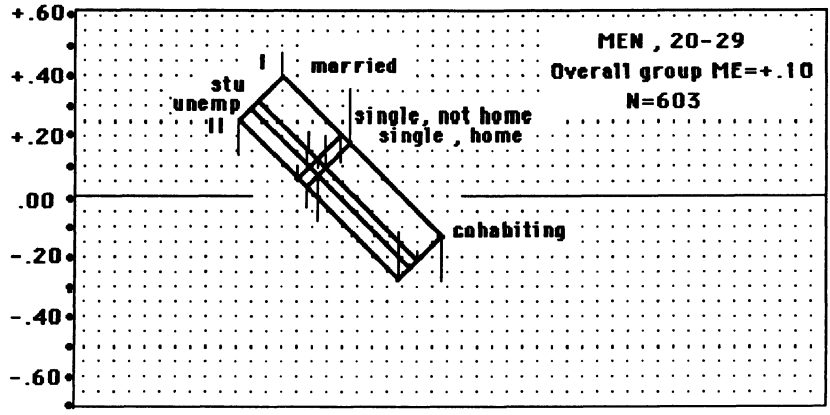
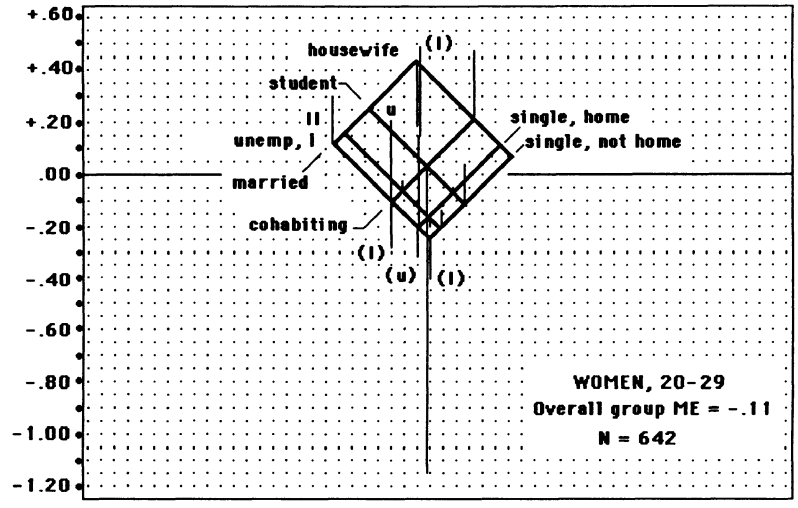


Figure 6. *Scores on traditional gender roles by living arrangement and social position; women, aged 20-29 in West Germany, France, Belgium, and the Netherlands, 1990; Median polish fitted values and residuals*



Dimension III: Traditional gender roles.

I = Employer, managerial, professional, middle white collar;
II = Lower white collar, blue collar.

traditional views and employed women or women seeking employment the most egalitarian opinions. The effects of the types of living arrangement distinguish between women with and without a partner. The latter, on average, hold more egalitarian views. However, there is also a major difference between married and cohabiting women. In this instance, married women have averages indicative of more traditional opinions than cohabitants, as expected.

The most striking feature in Figure 6 is the existence of considerable residuals. First and foremost, cohabiting female students have, on average, much more egalitarian views than predicted by the model. The same also holds, but to a lesser extent, for cohabiting women employed in blue collar or junior white collar jobs. Secondly, the differences between married women according to socio-economic position or employment status are smaller than predicted by the additive model, whereas the differences between cohabiting women depending on employment status are larger than predicted. As a result, the few cohabiting women who are housewives (N = 19) are, on average, more traditional with respect to gender roles than married housewives (N = 110). This interesting interaction may arise from the small sample size of the former category and needs confirmation by other studies.

5.4. Summary

The findings emerging from the preceding analyses can be summarized as follows:

- Where there are substantial differences in values among *men*, differences associated with the type of living arrangement are much more prominent than differences connected with socio-economic position.
- The selection and/or subsequent affirmation mechanisms linking values and types of living arrangements for *men* are clearest with respect to the religiosity and ethical dimension and weakest for the right-wing political factor.
- The generally weak association with socio-economic position of *men* is subject to a caveat: the employment status of their partners could not be incorporated in the present analysis.
- Differences in all three value dimensions by socio-economic position and type of living arrangement are usually much larger for women than for men.
- Employment status of *female* respondents not only differentiates with respect to the dimension of traditional gender roles, which is almost a

tautological finding, but even more so for both the religiosity or ethical and for the political right-wing dimensions.
- Housewives, on average, score highest on the religiosity factor and the traditional gender role factor, but unemployed women score highest on right-wing political convictions and intolerance toward minorities.
- *Female* home-leavers and cohabitants are considerably more secularized, most aversive to right-wing political ideas, and most inclined toward egalitarian gender roles.
- These features are enhanced among *women* in these intermediate living arrangements if such states are combined with being a *student*.
- Housewives show less variation with respect to the value dimensions depending on living arrangement (married versus cohabiting), but among *working women* living arrangements are associated with much larger differences in value orientations.

6 | Conclusions

The main conclusion is that the associations between the various value orientations and the types of living arrangement are either completely or largely resistant to controls for socio-economic position (see also Lesthaeghe and Meekers, 1986). This invalidates the common hypothesis made by authors of economic theories which assumes that values and living arrangements are fully codetermined by the economic aspects of the life course.

Secondly, we have found in this European data set that single home-leavers and cohabitants resemble each other in terms of the three value dimensions studied. This is completely in line with what Rindfuss and Vanden Heuvel (1990) have reported for the USA. In their study, the gap in value orientations between cohabitants and married persons was also larger than between cohabitants and single home-leavers.

Thirdly, the present data equally confirm that *parental* religiosity or secularization is a factor involved in the *selections* made by their children. Selecting cohabitation is more likely for persons without a religious upbringing (cf. also Liefbroer, 1991; Thornton and Camburn, 1987). For the other items, no such causal conclusions can be drawn and no differences between the selection effect and affirmation effect could be established.

However, American data from the National Longitudinal Study of the High School Class of 1972 show that selection effects are by no means negligible. In this panel-study with multiple waves, a dozen 'life importance' questions were administered that touch upon the value of family life, money, success at work, social involvement, activism, and leisure. The analysis recently performed by Clarkberg, Stolzenberg, and Waite (1993) indicates that cohabitants were indeed less oriented towards family life to start with, that women stressing careers at the onset also selected themselves disproportionately into cohabitation, but that the same was also true for men with *less* commitment to work and a stronger accentuation of leisure time. Finally, the two 'classics' also emerged in the US panel data: persons with more egalitarian attitudes toward sex roles and with a higher degree of secularization were much more likely to subsequently move into the intermediate cohabitation state.

The opposite influence, i.e. changes in values depending on the occupational life cycle stages, must also play a role. This can be inferred from the fact that the attitudes strongly in favour of more secularism, egalitarian gender roles, and which are aversive to right-wing political ideas recorded among students living independently in this survey, are no longer necessarily present when the student phase is over. The present data also suggest that these student values are maintained to a higher degree among women if they move into cohabitation and employment. From this cross-section, it also appears that socio-economic life cycle stages are much less discriminating for the value orientations of men.

Last but not least, important differences in life satisfaction emerged according to living arrangement and after controlling for socio-economic position. More stable situations, such as marriage, are more conducive to increasing life satisfaction, probably because individual autonomy and self-fulfilment are less accentuated, which in turn facilitates the giving and taking within a partnership. More transient states, such as living separately or cohabiting, are associated with lower self-ratings on the life satisfaction scale and with more frequent sentiments of frustration. This seems indicative of a wider gap between aspirations and reality.

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Table A.1. *Sample size and percentage distributions by living arrangement in the 1990 EVS data sets, respondents aged 20-24 and 25-29*

	Women, 20-24					Women, 25-29				
	Single, living with parents	Single, not living with parents	Cohabiting	Married or divorced	N	Single, living with parents	Single, not living with parents	Cohabiting	Married or divorced	N
Iceland	22	15	50	13	(40)	5	7	35	53	(43)
Sweden	33	13	36	18	(39)	0	18	21	61	(38)
Denmark	16	45	33	6	(51)	2	18	41	39	(56)
Norway	25	34	31	10	(59)	8	20	27	45	(80)
France	37	20	24	19	(54)	7	10	24	59	(68)
Britain	40	14	24	22	(68)	10	7	15	68	(81)
Netherlands	25	33	23	19	(55)	2	21	14	63	(55)
Belgium	48	7	18	27	(138)	15	6	11	68	(140)
West Germany	46	26	18	10	(104)	10	20	20	50	(99)
Portugal	67	6	7	20	(91)	31	5	0	64	(45)
Ireland	72	15	4	9	(54)	28	14	2	56	(57)
Spain	69	9	3	19	(136)	29	12	3	56	(136)
Italy	78	5	1	16	(100)	44	2	1	50	(108)

Table A.1. (continued)

	Men, 20-24					Men, 25-29				
Iceland	45	20	29	6	(51)	14	19	41	26	(57)
Sweden	46	15	32	7	(54)	4	18	42	36	(45)
Denmark	39	34	26	1	(74)	5	32	40	23	(62)
Norway	57	14	21	8	(63)	12	27	29	32	(59)
France	48	25	18	9	(56)	14	30	20	36	(50)
Britain	56	13	16	15	(75)	22	13	12	53	(66)
Netherlands	41	40	12	7	(57)	14	33	20	33	(61)
Belgium	61	15	11	13	(145)	37	13	12	38	(175)
West Germany	68	19	7	6	(115)	14	25	23	38	(103)
Portugal	79	9	0	12	(125)	32	8	1	59	(60)
Ireland	82	16	2	0	(61)	57	8	0	35	(37)
Spain	83	8	3	6	(138)	45	15	2	38	(143)
Italy	90	4	1	5	(104)	64	6	3	27	(112)

Table A.2. Value dimensions: means, standard deviations, and sample size by subgroup

			Dimension 1		Dimension 2		Dimension 3		
			Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	N of cases
Male			-0.14	0.97	0.02	0.99	-0.07	1.00	603
11	single home	junior white collar, blue collar	0.11	0.86	0.21	0.94	0.03	1.01	101
12		employer, managerial, senior and middle white collar	-0.18	0.77	0.20	0.87	-0.37	0.91	17
14		student	-0.12	0.86	-0.09	0.98	-0.20	1.08	87
15		unemployed	-0.39	0.67	-0.03	0.88	0.08	1.00	11
21	single not at home/junior white collar, blue collar		-0.38	0.99	-0.08	1.19	-0.10	0.95	74
22		employer. managerial, senior and middle white collar	-0.61	0.77	0.09	0.87	-0.11	0.90	39
24		student	-0.33	1.28	-0.30	1.02	-0.06	0.66	31
25		unemployed	-0.27	0.97	0.19	0.64	-0.22	0.90	13
31	married	junior white collar, blue collar	0.27	0.91	0.31	1.09	-0.14	1.06	94
32		employer. managerial, senior and middle white collar	0.43	1.00	-0.37	0.69	-0.47	0.97	26
34		student	0.17	0.28	0.57	0.09	0.81	0.12	3
35		unemployed	0.41	0.66	-0.67	1.04	-0.10	0.78	4
41	cohabiting	junior white collar, blue collar	-0.36	1.02	-0.06	0.91	0.14	1.15	63
42		employer, managerial, senior and middle white collar	-0.52	0.53	-0.02	0.91	0.28	0.78	21
44		student	-0.65	0.92	-0.71	0.66	0.22	1.03	15
45		unemployed	1.57	1.26	0.13	0.78	0.01	0.88	6

Female			0.08	0.99	-0.06	1.00	0.05	0.99	642
11	single home	junior white collar, blue collar	0.03	1.03	0.14	1.09	0.21	0.96	83
12		employer, managerial, senior and middle white collar	-0.13	0.82	-0.14	0.36	-0.49	1.29	7
13		housewife	0.41	0.00	0.30	0.00	1.51	0.00	1
14		student	0.26	0.95	-0.29	0.80	0.09	1.00	50
15		unemployed	0.15	0.63	0.68	1.20	0.31	1.04	13
21	single not a home/junior white collar, blue collar		-0.21	1.03	-0.58	0.75	0.13	0.95	64
22		employer, managerial, senior and middle white collar	-0.75	1.14	-0.38	0.61	0.41	1.04	23
23		housewife	-0.63	1.30	-0.98	0.84	-0.09	1.36	2
24		student	-0.42	0.89	-0.83	0.71	-0.04	0.95	28
25		unemployed	-0.58	1.26	0.11	1.42	0.25	0.56	11
31	married	junior white collar, blue collar	0.39	0.73	0.37	1.00	0.20	1.06	76
32		employer, managerial, senior and middle white collar	0.35	0.95	-0.26	0.71	-0.30	0.78	30
33		housewife	0.63	0.83	0.32	0.95	-0.19	0.99	110
34		student	0.97	0.00	-0.28	0.00	-0.57	0.00	1
35		unemployed	0.48	0.63	-0.13	1.01	-0.37	0.76	5
41	cohabiting	junior white collar, blue collar	-0.09	0.97	-0.07	0.99	0.04	0.97	75
42		employer, managerial, senior and middle white collar	-0.60	0.80	-0.48	1.06	0.29	1.07	26
43		housewife	0.20	0.64	-0.21	1.04	-0.47	0.55	19
44		student	-0.88	0.72	-0.83	0.49	1.15	0.94	9
45		unemployed	-0.29	1.13	0.18	1.05	-0.20	0.91	10

Table A.3. Example of a median polish — the effects of socio-economic position and type of living arrangement on the dimension of 'high religiosity and strict morality' for male respondents aged 20-29 in Belgium, France, the Netherlands, and West Germany 1990

	Single with parents	Single not with parents	Cohabiting	Married	Row Median
A. Observed mean values					
I	-.18	-.61	-.52	+.43	
II	+.11	-.38	-.36	+.27	
Student	-.12	-.33	-.65	*	
Unempl.	-.39	-.27	*	*	
Overall Median					-.33
B. Extraction overall median					
I	.15	-.28	-.19	+.76	
II	+.44	-.05	-.03	+.60	
Student	+.21	.00	-.32	*	
Unempl.	-.06	+.06	*	*	
C. Extraction column medians					
I	-0.03	-.25	.00	+.08	
II	+.26	-.02	+.16	-.08	
Student	+.03	+.03	-.13	*	
Unempl.	-.24	+.09	*	*	
Column Median	+.18	-.03	-.19	+.68	
D. Extraction row medians					
I	-.01	-.23	+.02	+.10	-.02
II	+.19	-.09	+.09	-.15	+.07
Student	+.00	.00	-.16	*	+.03
Unempl.	-.16	+.17	*	*	-.08
E. Fitted values (Overall Me + Col. Me + Row Me)					
I	-.17	-.38	-.54	+.33	-.02
II	-.08	-.29	-.45	+.42	+.07
Student	-.12	-.33	-.49	*	+.03
Unempl.	-.23	-.44	*	*	-.08
Column Median	+.18	-.03	-.19	+.68	-.33

Notes: I = Employer, managerial, senior & middle with collar, II = junior white collar & blue collar, * = value omitted from analysis.

STANDARDIZATION AND INDIVIDUALIZATION: The transition from youth to adulthood among cohorts born between 1903 and 1965

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Abstract. This article examines changes in the timing and patterning of several main transitions during young adulthood: leaving the parental home, unmarried cohabitation, marriage, and first childbirth. Using data from three large-scale surveys containing retrospective questions, trends in these transitions are studied for cohorts born between 1903 and 1965. For cohorts born up to the 1940s, a trend towards standardization of the life course is found, whereas for younger cohorts an opposite trend towards destandardization is observed. Furthermore, recent birth cohorts tend to postpone marriage and childbearing, indicating an increased preference for flexibility in the life course. No decline in sex and social class differences was observed, which questions the alleged general tendency towards individualization of the life course.

Keywords: life course; adults; living arrangements; the Netherlands.

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1 | Introduction

The transition from youth to adulthood is characterized by a number of status passages that most young people experience. The most important of these status passages are the transition from school to the labour market and the move from the family of origin to one's own family, either via unmarried or married cohabitation with a partner and having a first baby. The timing of these events and their order has changed considerably during the course of this century. For example, the age at first marriage and at first birth have shown a consistent decrease during most of this century, followed by a rapid reversal of this trend during the last two decades (De Jong Gierveld and Liefbroer, in press). The rapid increase of educational opportunities during the second half of this century, resulting in a later age at leaving the educational system, and the concomitant later age at which young adults reach economic independence forms another example.

Standardization and individualization of the life course are key terms in sociological debates on the kind of changes that occurred in Dutch society with regard to the transition from youth to adulthood (Peters, 1992). The developments up to the 1960s are mainly characterized by the term 'standardization', meaning an increasing uniformity in the transition from youth to adulthood. The developments from the 1960s onward are usually characterized by the term 'individualization'. Young adults are increasingly able to decide for themselves about the timing and order of status passages to adulthood. Normative pressures have been relaxed. One dominant pattern, like in the fifties and sixties, seems to have become nonexistent. The standard life course seems to have been replaced by the choice biography (Fuchs, 1983; Du Bois-Reymond, 1992).

Surprisingly, there is only limited empirical data to support the existence of the processes of standardization and individualization in the life course (Blossfeld and Nuthmann, 1991; Cooney and Hogan, 1991; Van Leeuwen and Ploegmakers, 1990; Manting *et al.*, 1992; Peters, 1992). This article is intended to partly fill this gap by testing a number of hypotheses related to these issues, using data on cohorts born between 1903 and 1965. For this purpose, data from various surveys were combined on the timing of leaving the parental home, unmarried cohabitation, marriage, and first childbirth, and on the order in which these events occurred.

This article is organized as follows. In section 2, the processes of standardization and individualization are discussed, and a number of

hypotheses are formulated on these processes. Section 3 examines the data sources and methods of analysis used. The results of the analyses are presented in section 4, and the article concludes with a discussion of the main results.

2 | Hypotheses

The proposition that the transition from youth to adulthood in Dutch society has been subject to a process of standardization during the first half of this century is basically uncontested. The standard pattern emerging during this period consisted of leaving the parental home to get married, soon followed by the birth of the first child. For men, getting married was linked to economic independence, as they first had to be able to support a family. For women, it meant quitting their job when they got married in order to be able to fully devote themselves to their family (Van Leeuwen and Ploegmakers, 1990). According to Van Leeuwen and Ploegmakers (1990), this development reached its climax in the 1960s. The standardization process can be considered as a dissemination of bourgeois ideals to larger parts of the Dutch population. Due to the improved standard of living, growing numbers of young adults from the working class were also able to realize this middle-class ideal. De Hart (1992) and Peters (1992) emphasize that the standard life course for men and women differed, and that differences still remained between various social classes.

With respect to the development up to the 1960s (standardization phase), the following two hypotheses are tested:

1. The variation in the timing of various status passages during young adulthood has decreased, and the proportion of young adults experiencing the standard pattern of leaving home to get married, soon afterwards followed by the birth of a first child, has increased.
2. The impact of social class on the timing and the order of status passages has decreased, but without disappearing completely.

Since the sixties, the standard life course has eroded. An increasing percentage of young people leave the parental home before getting married, many young people cohabit unmarried for a shorter or longer period, and many postpone having children (De Jong Gierveld and Liefbroer, in press). In addition, an increasing percentage of young women are combining family life and a career. In order to understand these developments, the increasing

significance of the individualization process in the lives of young adults is often pointed out (Du Bois-Reymond, 1992; Fuchs, 1983; Peters, 1992). Individualization of the life course means that young people less often subscribe to formal or informal rules concerning important decisions in their lives, and increasingly make their own decisions on their future. Fuchs (1983) suggests a number of reasons for this trend. Perhaps the most important one is the fact that young people are spending an increasing amount of time in the educational system, and consequently enter the labour market later. As a result, they gain more time to develop their own personalities and to experiment with various living arrangements and lifestyles. At the same time, there is an ongoing trend within the educational system to enhance the personal responsibility of young people. Other reasons mentioned by Fuchs for the increasing individualization are the rise in young people's income, media intervention, and increased independent travel opportunities. What all the above reasons have in common is that young people are confronted with the opportunity, and partly with the necessity, of making their own choices. This is why discussions now focus on the replacement of the standard life course by a choice biography (Peters *et al.*, 1993).

The consequences of individualization for the transition from youth to adulthood are not unequivocal. First, individualization could lead to a postponement of various status passages. The awareness that one can decide one's own future could result in keeping future prospects open for as long as possible, as each choice precludes other options (Birg *et al.*, 1991; Du Bois-Reymond, 1992; Mulder and Manting, 1994). Flexibility has become the key word. Second, individualization could lead to more variation in the timing and the order of main status passages. Both the necessity and the opportunities for making personal decisions have increased, resulting in a decreasing compliance with normative 'time-tables'. A third possible consequence of increasing individualization is that the differences between men and women and between young adults from various social backgrounds have decreased. Whether and when young adults experience certain status passages has become a matter of personal choice and will partly depend on their circumstances. However, it now depends less on norms that are specific to one's social background. These norms have lost some of their significance and, in cases where they still prevail, they have acquired a more general nature.

With respect to developments since the 1960s (the individualization phase), the following hypotheses will be tested:

3. The variation in the timing of various status passages has increased, and the proportion of young adults experiencing the standard pattern has decreased.
4. Important life course decisions are postponed, with the consequence that the status passages are, on average, made at a later age.
5. The influence of social class and sex on the timing and the order of status passages has decreased.

3 | Data and method

The hypotheses formulated in the previous section will be tested using data from three surveys. In combination, these surveys provide the opportunity to depict, for a large number of cohorts, the timing and the sequence of leaving the parental home, cohabitation with a partner, and having a first child. The oldest respondents in the database were born in 1903, the youngest in 1965. Each of the data sources used will be discussed briefly.

First, data collected in the NESTOR project 'Living arrangements and social networks of the elderly' were used. A survey was conducted as part of this project in 1992 among almost 4500 persons born between 1903 and 1937. The response was 61.2%. The sample has been weighed in order to increase the comparability with the population. More information can be found in Knipscheer *et al.* (in press).

Second, data have been used from a survey on 'Living Arrangements in the Netherlands (ORIN)', conducted in 1984. Sixteen hundred respondents born between 1930 and 1966 were interviewed in this survey. The sample has been weighed in order to make the data representative of the population. Information on response rates is not available. This article only discusses data on respondents from the birth cohorts 1938-1952.[1] More information on the survey can be found in Van de Kaa and Voets (1989).

Third, data were used from a survey on the 'Social integration of young adults (SI)', conducted in 1991. Approximately 1250 respondents born in

[1] We restrict our use of ORIN data to the birth cohorts 1938-1952 for two reasons. First, data for the cohorts born between 1930 and 1937 are available from the NESTOR survey. Second, most respondents from the cohorts born after 1952 cannot be followed until the age of 30. Furthermore, their number is relatively small.

1961, 1965, and 1969 were interviewed. This was a second interview with young persons who had also been interviewed in 1987. In 1987, the response had been 63.4%. In 1991, 70.8% of the original sample were willing to participate in a second interview. Only data from the 1961 and 1965 birth cohorts have been used for this article. More information on response and representativeness can be found in Taris *et al.* (1993).

All three surveys included questions on the age at which the parental home was left for the first time, unmarried cohabitation, marriage, and first childbirth.[2] An important problem when using retrospective data is the extent to which the sample can still be considered representative of the population at the time when the events actually occurred. This problem becomes more severe as the event happened longer ago, and more persons from the original population have died or migrated. For the cohorts in the ORIN and SI surveys, this was partly corrected by calculating the percentage of men married by the age of 25, and the percentage of women married by the age of 23. These percentages were subsequently compared with available population statistics. In the case of the SI survey, the differences appeared to be small; with respect to the ORIN survey, these were somewhat larger. Both datasets were reweighed to the extent that the percentages in the surveys corresponded with those in the population. For the cohorts in the NESTOR survey, this strategy was not possible because suitable population statistics were not available until 1948. However, to assess the 'retrospective representativeness' of the NESTOR-data, we compared information from the

[2] Both the month and the year in which an event occurred were asked, the only exception being the age at leaving the parental home in the NESTOR survey. As this took place for the respondents a long time ago, and as this event is not as salient to most of the respondents as marriage or the birth of a first child, it was assumed that it would be very difficult to obtain a reliable estimate of the month in which this event occurred. However, a question on why one left home was also included. In order to make the timing of this event comparable with that of other events, a month was arbitrarily assigned to each respondent, unless the year of leaving home and the year of getting married was the same. The answers to the question why one left the parental home indicated that, in more than 90% of the cases, the year of leaving home and the year of marriage was the same. In these cases, it was assumed that the timing of marriage and of leaving the parental home coincided. In order to check whether this procedure resulted in distortions, two types of survival curves were estimated for the time between the moment of marriage and of having a first child. In the first case, all the information on month and year of the event was used; in the second case, only the information on the year in which these events took place. The two survival curves appeared to differ only slightly.

NESTOR-survey with population estimates based on Census-information. *Table 1* shows the results of this comparison.[3]

For women, a comparison was made with regard to the percentage of childless women, the mean number of children born to ever-married women, the percentage ever-married at age 50, and the mean age at first marriage. For men, only the percentage ever-married at age 50 and the mean age at first marriage could be compared. In general, the differences between the population statistics and the NESTOR estimates are relatively small, although for specific comparisons the differences become quite substantive. Most importantly, the general trends across birth cohorts seem to be accurately represented by the NESTOR data. However, the mean age at first marriage is overestimated, especially among men, and the percentage of childless women is somewhat underestimated. We suggest two reasons for these discrepancies. First, as a result of excess mortality among never-married people, the percentage of people never-married may be slightly underestimated in the data, resulting in an underestimation of childless women and an overestimation of the proportion ever-married at age 50. Second, socio-economic mortality differences and selective nonresponse could result in an overrepresentation of elderly with a relatively high socio-economic status. If socio-economic status is related to marriage timing, as data presented later in this article suggest, this could result in an overestimation of the mean age at marriage.

The next section will sketch developments in the transition from youth to adulthood with respect to the events of leaving the parental home, cohabiting with a partner, and having a first child. For men and women separately, it was established, per ten-year birth cohort, at what age one quarter, one half, and three quarters of the cohort had experienced an event. In order to gain insight into changes in the duration of this transition period, the amount of time that passed between the age at which the first of the three transitions

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[3] The population estimate of the proportion of childless women at age 50 has been calculated by adding estimates of the proportions childless *ever*-married women and childless *never*-married women. The proportion of ever-married childless women was calculated by multiplying the proportion of ever-married women per cohort as estimated by Van Poppel (1992) by the proportion of childless women among ever-married women based on information from the Census 1971. The proportion of childless never-married women was estimated by taking the proportion never-married women at age 50 as estimated by Van Poppel (1992) and assuming that 5% of them had given birth to a child.

Table 1. Information on the 'retrospective' representativeness of the NESTOR-LSN data

	Women								Men			
	Percentage childless		Mean number of children[a]		Percentage ever-married at age 50		Mean age at first marriage		Percentage ever-married at age 50		Mean age at first marriage	
Cohort	Censuses[b]	NESTOR	Censuses[c]	NESTOR	Censuses[d]	NESTOR	Censuses[d]	NESTOR	Censuses[d]	NESTOR	Censuses[d]	NESTOR
1905-09	22.7	21.9	3.26	3.25	87.3	88.9	25.5	26.3	91.7	93.4	27.6	29.2
1910-14	20.0	19.7	3.29	3.27	88.7	87.3	25.0	26.3	92.2	89.9	27.0	28.2
1915-19	17.2	14.0	3.27	3.35	90.6	92.7	24.6	26.1	93.0	96.5	26.6	28.1
1920-24	16.5	16.3	3.12	3.12	91.7	91.1	24.7	25.1	93.1	93.0	26.8	27.8
1925-29	14.9	12.4	2.97	3.05	92.6	92.6	24.6	24.3	92.6	93.1	26.7	27.4
1930-34	12.9	10.6	2.76	3.00	93.7	94.1	24.2	24.5	91.8	91.4	26.4	26.6

[a] Among ever-married women only.
[b] Based on estimates by Van Poppel (1992) and data from the Census 1971.
[c] Based on data from the Census 1971.
[d] Based on estimates by Van Poppel (1992).

was made and the age at which all three transitions had been made has been calculated. Finally, per ten-year birth cohort, the patterns in the transition from youth to adulthood were studied by examining the ordering of the events of leaving the parental home, unmarried cohabitation, marriage, and having a child.[4] In order to make the data between the cohorts comparable, only events occurring before the age of 30 were included in the analysis.

The second part of the analysis is aimed at examining the effects of sex and social background on the timing and sequence of the status passages. However, not all three surveys have comparable data on the social background of the respondents. The NESTOR survey and the SI survey are very similar, while the ORIN survey poses different questions. Therefore, only data from the NESTOR survey and the SI survey were used, and the analysis was aimed at three cohorts that differ about thirty years in age (one generation). The oldest cohort contains persons born between 1903 and 1907. These persons made the transition to adulthood during the economic recession in the late twenties and early thirties. The middle cohort consists of persons born between 1933 and 1937. This cohort made the transition in the late fifties and early sixties, during the period that the standard life course was very popular. The youngest cohort contains persons born in 1961 and 1965. Their transition to adulthood should be strongly individualized.

The effect of social background will be examined using two types of data. First, both surveys contained questions on the highest level of education attained by the father of the respondent. This information is recoded to three levels: low (primary or lower), middle (highschool), and high (college and higher). Second, an item on the church membership of the respondent's parents is used. In the NESTOR survey, this was asked separately for the mother and father; in the SI survey this was asked for both parents combined. It appeared from the NESTOR survey that the church membership of both parents coincided in the majority of cases. If this was not the case, the church membership of the mother was chosen. Three categories are distinguished in the analyses: no church membership, protestant, and Roman Catholic. A remaining group with 'other' religious affiliations (5% of the total) was left out of the analysis.

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[4] Whenever the time lag between two events was three months or less, they were considered as simultaneous events.

The trend in the effects of sex and social background is analysed using log-linear models for hazard rates (Laird and Oliver, 1981; Larson, 1984). A hazard rate is a measure for the speed at which a process occurs. It can be considered as the conditional probability that an event will occur in a certain span of time, for instance, one month. This is a conditional probability because it is only based on those persons who run the 'risk' of experiencing the event. For example, in the case of leaving the parental home, the risk population only consists of those persons who still live with their parents. After the parental home has been left for the first time, persons are no longer part of that risk population. This type of model is highly comparable with logit models (Hagenaars, 1990).[5] Applications of such models can be found in Hoem (1986) and Liefbroer (1991a). The use of a log-linear model is attractive because it is very simple to include interaction effects in the model, and to examine whether these interactions are statistically significant. Therefore, examining whether the influence of sex and social background is the same in all three birth cohorts becomes very simple. All one has to do is to specify an interaction between cohort and relevant other characteristics, and to test whether the inclusion of this interaction significantly improves the fit between the model and the data.

4 | Results

4.1. Timing and order of status passages

For most young adults, leaving the parental home is their first transition towards adulthood. Per ten-year cohort, and separately for men and women, Panel A of *Table 2* shows the age at which one quarter, one half, and three quarters of the young adults have left the parental home for the first time,

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[5] A log-linear model for hazard rates can be described using the ANOVA or 'u-term' notation for log-linear models (Bishop, Fienberg & Holland 1975). For example, if the hazard rate for leaving the parental home λ is modelled as dependent on age (A), sex (S), and cohort (C), then a saturated model can be represented as follows (subscripts have been omitted for the sake of simplicity):

$$\lambda_{ASC} = u + u_A + u_S + u_C + u_{AS} + u_{AC} + u_{SC} + u_{ASC}$$

The hazard rate depends on a general term (u) and a specific term for each of the main effects (u_A, u_S, and u_C) and the interaction effects (u_{AS}, u_{AC}, u_{SC}, and u_{ASC}). Using standard procedures, it can be tested to what extent these effects are necessary to adequately describe the hazrd rate in the various categories. Within hierarchical log-linear models, the inclusion of higher-order effects means that lower-order effects are automatically included in the model.

Table 2. Information on the age at which various birth cohorts experience certain status passages to adulthood

	Males				Females			
Cohort	25%	50%	75%	25-75%	25%	50%	75%	25-75%
A. Age at leaving the parental home for the first time								
1903-12	20.5	25.4	29.2	8.7	18.9	22.8	27.6	8.7
1913-22	20.7	24.4	28.3	7.6	19.9	23.3	26.3	6.3
1923-32	19.3	23.2	26.9	7.7	20.1	23.2	25.7	5.6
1933-42	19.8	23.3	26.1	6.3	20.3	22.6	24.4	4.2
1943-52	19.8	22.4	25.2	5.4	19.7	21.3	22.9	3.3
1961-65	20.2	21.7	24.8	4.7	18.9	20.7	22.5	3.7
B. Age at first marriage								
1903-12	25.3	28.3	31.9	6.6	23.1	26.3	31.2	8.1
1913-22	25.2	27.5	31.2	6.0	22.6	25.2	28.8	6.2
1923-32	24.8	26.8	29.7	4.8	22.3	24.4	26.9	4.7
1933-42	23.4	25.8	28.8	5.3	22.0	23.5	26.0	3.7
1943-52	22.1	24.0	27.4	5.3	21.3	22.3	24.6	3.2
1961-65	25.1	28.7	>30	-	22.3	24.7	30.1	7.8
C. Age at first union (either married or unmarried)								
1903-12	25.3	28.3	31.8	6.5	23.1	26.3	31.1	8.0
1913-22	25.1	27.4	31.2	6.1	22.6	25.2	28.8	6.2
1923-32	24.8	26.7	29.6	4.8	22.3	24.3	26.9	4.7
1933-42	23.4	25.8	28.4	5.0	22.0	23.4	25.7	3.7
1943-52	21.7	23.8	27.3	5.7	21.2	22.2	24.3	3.2
1961-65	22.5	25.0	28.7	6.2	20.6	22.4	25.0	4.4
D. Age at first childbirth								
1903-12	27.4	30.5	38.1	10.7	25.2	29.2	42.3	17.1
1913-22	27.0	30.1	34.7	7.7	24.5	27.6	31.9	7.4
1923-32	26.3	28.9	32.7	6.3	23.8	26.5	30.2	6.3
1933-42	25.6	27.9	31.8	6.2	23.6	25.6	28.5	4.9
1943-52	23.6	26.3	30.8	7.3	22.6	25.0	28.8	6.2
1961-65	28.6	>30	>30	-	25.2	29.3	>30	-
E. Number of years between the first and the third status passage								
1903-12	1.3	5.0	14.8	13.4	1.4	5.6	26.2	24.8
1913-22	1.3	5.3	12.3	11.0	1.1	3.3	11.1	10.0
1923-32	1.5	5.8	12.4	10.9	1.1	3.1	10.1	9.0
1933-42	1.4	3.8	11.3	9.8	1.0	2.5	6.9	5.9
1943-52	1.8	3.5	8.8	7.0	1.2	3.2	7.9	6.8
1961-65	6.8	12.5	16.3	9.5	4.2	8.2	-	-

and how many years pass between the age that one quarter left the parental home and the age that three quarters has done so. In the course of this century, young people have left home at an increasingly earlier age. This is illustrated by the drop in the median age at leaving home, and even better by the drop in the age at which three quarters have left the parental home. Furthermore, the variation in the age at which young adults leave the parental home has decreased in the course of this century.

Panel B of Table 2 shows data on changes in the age at first marriage. Among both men and women, the age at first marriage dropped from the birth cohort 1903-12 to the birth cohort 1943-52. This drop in age at first marriage is linked with a rapid drop in variation as well. Particularly among women, many marriages took place in a relatively short time span. A reversal emerged among recent birth cohorts. The youngest birth cohort married much later and showed a much larger variation in marriage timing as well. For example, among women, a time gap of about eight years occurred between the ages at which one quarter and three quarters was married. Thus, the variation is again as high as among cohorts born at the beginning of this century.

The recent reversal in age at first marriage is closely related to the growing popularity of unmarried cohabitation. Some young adults cohabit unmarried for a short period and then get married, while others cohabit unmarried on a more permanent basis. Panel C of Table 2 indicates the age at which young adults first start to live with a partner. No distinction has been made here between married and unmarried cohabitation. With the exception of the youngest birth cohort, the results are virtually identical to those for age at first marriage. However, the results are quite different for the youngest cohort. The age at which they start living with a partner for the first time appears to rise only slightly, in contrast to the large rise in the age at first marriage. The variation in the age at first union also rises less sharply than the variation in the age at first marriage.

For many, the third status passage is having a child. Panel D of Table 2 shows the development in age at first childbirth. Its development resembles that of age at first marriage, with a rather continuous decline up to the birth cohort 1943-52, followed by a sharp reversal among the 1961-65 birth cohort. With respect to the variation in the timing of first childbirth, a decline until the birth cohort 1933-42 can be observed. There is a slight increase among young adults born between 1943 and 1952. Not much can be said yet about the variation within the youngest birth cohort, because relatively few

men and women in this group have had a child before the age of thirty. Finally, the high age at which three quarters of the men and women from the 1903-12 birth cohort had a first child is striking. This measure is highly influenced by the fact that a large proportion of this cohort remained childless, as was shown in Table 1.

In order to complete the picture of the changes in the transition from youth to adulthood, it is important not only to examine changes in the timing of separate status passages, but also changes in the links between those passages. One method is to examine the amount of time needed to experience all three status passages. This is shown in Panel E of Table 2. In all birth cohorts except the youngest, a considerable proportion has experienced these three events in rapid succession or sometimes even simultaneously. One quarter of the young adults experienced all three events within a time span of one to one and a half years. The youngest birth cohort is an exception. It took them much longer to go through all three passages. With respect to the time that has passed before one half, respectively three quarters, of the young people have experienced all three status passages, there appeared to be a slight decline in the median duration and a rather sharp decline in the duration for three quarters. This decline continued, with fluctuations, until the 1943-52 birth cohort. A reversal occurred here as well among the 1961-65 cohort.

Finally, attention will be paid to changes in the order in which young adults experience the status passages. *Table 3* indicates, again separately for men and women, per birth cohort, what percentage has followed various patterns before their thirtieth birthday.[6]

First, up to the birth cohort 1943-52, the so-called standard pattern (leaving home to get married, then having a child) was the most prevalent. Approximately 40% of the men born between 1903 and 1952 followed this pattern, while this was the case for more than half of the women. Between the 1903-12 and the 1933-42 birth cohort only a slight increase in the incidence of this pattern occurred. There was a slight decline among the cohort 1943-52, while this pattern was much less prevalent among the 1961

[6] This analysis has been conducted using the program ESMA (Event Sequence Analysis), developed by Martin Schulz of Stanford University.

Table 3. Distribution of sequences of status passages before the thirtieth birthday (in percentages)

Sequence	Males						Females					
	Birth cohort						Birth cohort					
	1903-12	1913-22	1923-32	1933-42	1943-52	1961	1903-12	1913-22	1923-32	1933-42	1943-52	1961
LH+MAR→CHILD	45.8	44.1	36.5	43.0	40.6	9.3	45.3	53.9	49.6	56.3	44.1	22.8
LH+MAR	4.0	3.7	1.6	1.8	3.6	5.1	7.2	3.8	3.0	3.7	2.1	3.7
LH→MAR→CHILD	30.7	35.8	39.1	35.2	18.1	2.8	25.4	22.2	23.3	20.6	25.2	7.9
LH→MAR	5.8	3.1	4.6	1.2	1.2	4.2	5.3	3.3	3.1	3.1	0.0	1.4
LH	5.4	4.9	3.2	4.2	4.8	15.8	9.9	7.4	6.6	3.7	3.8	6.5
MAR→?	5.1	3.4	7.1	4.8	5.6	0.9	1.9	5.4	9.8	6.6	16.8	2.3
LH+UC→MAR→CHILD	0.0	0.0	0.0	0.0	5.2	8.8	0.0	0.0	0.0	0.0	2.1	11.6
LH+UC→MAR	0.0	0.0	0.0	1.5	0.0	7.0	0.0	0.0	0.0	0.0	0.0	6.0
LH+UC	0.0	0.0	0.0	0.3	1.2	5.6	0.0	0.0	0.0	0.0	0.8	0.9
LH→UC→MAR→CHILD	0.4	1.9	0.6	1.5	7.6	11.6	0.5	0.5	1.0	1.1	1.3	11.6
LH→UC→MAR	0.4	0.2	0.4	2.1	2.8	8.8	0.9	0.4	0.2	1.7	0.4	7.4
LH→UC	0.2	0.0	0.0	0.9	1.6	8.4	0.0	0.0	0.0	0.3	2.1	10.7
OTHER	2.2	2.9	6.9	3.5	7.7	11.7	3.6	3.1	3.4	2.9	1.3	7.2
N = 100%	554	589	504	330	198	215	567	553	602	368	207	215

Key: LH = leaving home; UC = unmarried cohabitation; MAR = marriage; CHILD = first child; + = simultaneous; → = followed by; ? = arbitrary sequence.

Example: LH+UC→MAR = simultaneously left home and started to cohabit unmarried, followed by a marriage, no child before the age of thirty; MAR→? = marriage before leaving home, no differrentiation among possible subsequent transitions.

birth cohort. Although it was still the most prevalent pattern among women, this was no longer the case among men, and less than 10% followed this pattern before their thirtieth birthday.

The second most popular pattern is leaving the parental home, followed by marriage, and then followed by the birth of a child. This so-called 'semi-standard' pattern was especially popular among men (Van Leeuwen and Ploegmakers, 1990). Apparently, men left the parental home more often than women for reasons other than marriage. This pattern too seemed to lose popularity from the 1943-52 birth cohort onward. The dramatic decline in the proportion of the standard and semi-standard pattern becomes apparent when the percentages of both patterns are combined. This percentage was fairly stable at 80% among men born between 1903 and 1942. Then it dropped to 60% for the 1943-52 birth cohort, and subsequently dropped even further to slightly more than 10% among the 1961 cohort. The same tendency is evident among women, although somewhat less dramatic.

It would seem obvious to consider the popularity of unmarried cohabitation as the main reason for the declining popularity of the standard and semi-standard pattern. It indeed becomes apparent from Table 3 that patterns in which unmarried cohabitation plays a role are popular among the youngest cohort. However, even if patterns in which unmarried cohabitation plays a role and that involve the birth of a child are viewed as variations of the 'standard' life course, the percentage of young people following a more or less standard pattern still declines rapidly, and drops to less than 35% among men and to just over 50% among women.

When considering the patterns across the various cohorts, the large variation in patterns among the youngest cohort is the most striking feature. The main trends are that (a) the percentage of young adults experiencing the birth of a first child before age 30 has dropped, (b) unmarried cohabitation plays a greater role, and (c) more young adults live on their own until their thirtieth birthday.

4.2. Differences by social background and sex

The extent of the differences according to sex and social background was examined for each status passage. In addition to the separate status passages, one aspect of the patterning of transitions was included in the analysis, being whether one had ever lived on one's own for three months or longer. For

each status passage, it was checked which log-linear model fitted the data best.[7]

Interaction effects between sex, religious background, and parental level of education on the one hand, and cohort on the other hand, were included in the model. The models will not be exhaustively discussed. Attention will be directed towards the effects of sex and social background.[8]

Differences between men and women will be discussed first. Panel A of *Table 4* shows that the relative rates at which men and women leave the parental home have diverged. In the 1903-07 birth cohort, men had a 20% lower rate than women. In the youngest cohort, this difference had increased to over 40%. A lower rate implies a more gradual process of leaving the parental home. Thus men leave the parental home later than women and this difference has increased in magnitude from cohort to cohort.

A similar picture of increasing sex differences emerges with respect to having a first child, and the time that passes between the first and the third status passage. This becomes apparent from Panels D and E in Table 4. With respect to union formation, the relative rates of men and women only changed slightly from cohort to cohort. However, it applies here as well that, before the thirtieth birthday, the probability of women to enter a union is much higher than for men. With respect to the probability of living alone, the differences between the sexes was greatest for the 1933-37 cohort. Men had a higher probability of living alone during young adulthood. Among the 1903-07 and the 1961-65 birth cohorts, the differences between probabilities for men and women were substantially smaller.

The trends in the effect of religious background are not so easily summarized. With respect to a number of status passages, the differences among the 1903-07 and the 1933-37 birth cohorts were still considerable, but most of them had disappeared among the youngest cohort. This applies to leaving the parental home, overall union formation, and living on one's own. For instance, among middle class women born between 1961 and 1965,

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[7] The selection is based on a forward search procedure. Model selection started with a model in which only main effects were included. Subsequently higher-order effects that resulted in a significant improvement of the model have been added to the basic model.

[8] Complete parameter estimates for the selected models are available from the first author on request.

Table 4. Relative transition rates for various status passages during young adulthood[a,b]

Cohort	Sex		Parental religious affiliation			Father's educational level		
	Males	Females	None	Protestant	Catholic	Low	Medium	High
A. Leaving the parental home for the first time								
1903-07	.80	1	.90	1	.78	.90	1	.86
1933-37	.71	1	1.21	1	.73	.89	1	1.04
1961-65	.57	1	.97	1	.93	.92	1	1.03
B. First marriage								
1903-07	.61	1	1.17	1	.74	1.08	1	.85
1933-37	.54	1	1.19	1	.76	1.08	1	.67
1961-65	.52	1	.75	1	.88	1.10	1	.64
C. First union (either married or unmarried)								
1903-07	.63	1	1.21	1	.74	1.09	1	.85
1933-37	.55	1	1.24	1	.80	1.08	1	.65
1961-65	.65	1	1.09	1	1.03	1.08	1	.77
D. First childbirth								
1903-07	.80	1	1.15	1	.82	1.07	1	1.17
1933-37	.74	1	1.16	1	.82	1.08	1	.61
1961-65	.50	1	.91	1	.76	.93	1	.61
E. Having experienced all three status passages								
1903-07	1.20	1	1.18	1	1.01	.93	1	.75
1933-37	.83	1	1.01	1	.93	1.05	1	.56
1961-65	.60	1	.92	1	.87	1.28	1	.63
F. Living on one's own								
1903-07	1.11	1	.76	1	.89	.85	1	1.49
1933-37	1.47	1	1.10	1	1.03	.83	1	1.42
1961-65	1.05	1	.80	1	1.03	.87	1	1.51

[a] Female respondents, respondents who have protestant parents, and respondents whose father had a medium level of education, are the reference categories.

[b] In case of living on one's own, the dependent variable is not a transition rate, but the odds ratio 'having versus not having lived on one's own'.

the denominational difference in the median age at which they start their first union was only four months, whereas this was still almost two and a half years among women born between 1903 and 1907. With respect to getting married, the pattern of non-religious persons marrying earlier than others changed into non-religious persons marrying later. With respect to having a first child, young adults from Catholic backgrounds seem to be the last to experience this status passage. The differences in the duration between the first and the last status passage were never very large.

The results of the effect of educational level of the father are fairly easy to summarize. The relative rates in Table 4 show that persons whose father had a low or a medium level of education did not differ much, but that persons whose father had a high level of education had divergent rates. These differences were usually smallest among the oldest birth cohort. These differences were larger among the 1933-37 and the 1961-65 cohorts. For example, the differences in the median age at first childbirth between young adults having different socio-economic backgrounds was only about one year among young adults born between 1903 and 1907. Among young adults born between 1933 and 1937, this difference had increased to almost four years. Among the youngest cohort, the median age still differed by almost three and a half years. In general, highly educated young adults married later, had a first child later, and had a higher probability of living alone for a shorter or longer period. Leaving the parental home is an exception here in that young adults from various social backgrounds barely differed.

Finally, it was examined whether the effects of religious background and educational level of the father were similar for men and women. This proved to be the case.

5 | Discussion

This article examined the extent to which the transition from youth to adulthood has been subject to change in the course of this century. Attention was paid to status passages related to starting a household only, and those related to labour market participation were not included. The theoretical background was the debate in the sociology of youth on standardization and individualization of the life course. Starting from this vantage point, a number of hypotheses were formulated on expected trends in the transition to adulthood.

Two hypotheses were related to the initial decrease and subsequent increase in the variation in the timing and the order of status passages. This study basically confirms these hypotheses. Successive processes of standardization and destandardization in the life course have indeed occurred. This is most apparent in the patterns experienced by young adults before their thirtieth birthday. Almost 80% of the young adults born before or during World War II followed a pattern of leaving the parental home, getting married right away or soon afterwards, and then having a child, while after 1960 only a minority of young adults followed this pattern. The same becomes apparent with regard to the time that passes between the moment young adults take the first status passage to the time they have experienced the third one. This gradually became less, but showed a distinct reversal among the youngest cohort.

The recent rapid increase in the duration of the transition period between youth and adulthood is related to the fact that some transitions, particularly marriage and childbirth, are postponed, while other transitions, especially leaving home, are not. Apparently, status passages with far-reaching consequences are postponed. This provides support for the fourth hypothesis and the underlying idea of flexibility (Birg *et al.*, 1991). Young people prefer to keep their futures open as long as possible.

The second and fifth hypotheses related to the declining differences between the sexes and between young adults from various social backgrounds. Surprisingly little support was found for these hypotheses. There were decreasing differences according to religious background in some cases, but differences by social class basically remained intact, while sex differences usually increased.

Differences between men and women mainly increased with respect to leaving home and having a first child. The latter is probably an artefact of terminating the analysis at the age of 30. As young people were only followed to that age, any 'catching up' of men after their 30th birthday cannot be checked. The increasing difference between men and women in age at leaving home probably has structural reasons. Women start their union formation earlier than men. As leaving home often coincides with marriage or unmarried cohabitation, this means that women also leave the parental home sooner. Among cohorts born in the first half of this centry, this difference was probably partly compensated because men left the parental home more often than women to study and to work at a relatively young age. Due to the increasing educational opportunities, women now leave the

parental home earlier than men for educational or work-related reasons as well (De Jong Gierveld *et al.*, 1991). This results in an increasing difference between men and women with respect to leaving the parental home.

Differences by religious background appeared to be slight, and where this was not originally the case, they declined sharply, such as in the case of union formation. The older birth cohorts with a Catholic background married later than those with a protestant or non-religious background. This difference becomes much weaker among the youngest birth cohorts. Secularization is a likely factor here. Not only do fewer young people feel affiliated with a church, but church-goers have become more lenient towards behavioural codes as well (Layendecker, 1988).

Perhaps most surprising was the tenacity of social class differences. Young people whose father had a high level of education postpone union formation and parenthood, and have a higher probability of living alone. These differences did not decrease between cohorts. This raises the question how such differences are reproduced. Although this study does not provide an answer, reproduction of social inequality within the educational system seems to be the main cause. Although social inequality in education appears to be declining, it has not yet disappeared (De Graaf and Ganzeboom, 1989; Dronkers, 1992). Young adults whose fathers have attained a high level of education still have a higher probability of a better education themselves as well, which in itself is related to a higher age at leaving the parental home and first childbirth (De Jong Gierveld and Liefbroer, in press).

The results provide a mixed picture with respect to the tenability of the individualization hypothesis. On the one hand, the assumed processes of destandardization and flexibilization seem to operate. On the other hand, the finding that social class differences in the timing and order of status passages during young adulthood have not declined raises the question whether labelling the observed changes as individualization is correct, because individualization implies a decline in both sex and social background influences on behaviour. However, despite the rise in opportunities, young adults of both sexes and of various social backgrounds still make different demographic choices. The aforementioned reproduction of social inequality in the educational system could be one reason for this. Another reason could be what Meyer (1988) calls the cultural construction of the life course. In Meyer's view, people choose possible and desirable life course patterns from a reservoir of cultural scripts. Although these scripts are partly diffused across sex and class barriers, for instance, by the media and by the rise in

educational opportunities, there is sufficient reason to assume that these scripts still partly differ among young adults from various social backgrounds and among men and women (De Hart, 1992; Jones and Wallace, 1990; Liefbroer, 1991b; Peters and Du Bois-Reymond, 1990),

Two unresolved issues emerge from the above. First, no answer has been given to the question on how social class differences are reproduced. To do so, information on the transition from educational system to the labour market needs to be included in the analysis. This is also important for a second reason. Peters (1992) emphasizes that the life perspectives of men and women mainly differ due to the various ways they combine 'private' and 'public' roles. By paying attention to status passages with respect to household formation only, an important area of sex differences is being ignored. Perhaps a reduction in sex differences mainly occurs with respect to the combination of family and career roles. However, this combination of private and public roles could not be investigated within the framework of this study.

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FAMILY LIFE CYCLE AND EMPLOYMENT IN FLANDERS: Results from NEGO V (1991)

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Abstract. This study analyses recent changes in the labour force course of Flemish men and women across the family life cycle on the basis of retrospective data from the Fifth Fertility and Family Survey in Flanders (NEGO V, 1991). A new type of work force involvement has expanded considerably during the eighties, one that gives priority to non-market activities around which a part-time job must be fitted. An overview of the institutional context that has fostered the expansion of part-time employment in Belgium provides the background for the data analysis.

The relative importance of part-time employment, full-time employment, and non-employment is considered by constructing age-cohort tables of time spent in different 'activities'. Special attention has been given to gender differences generated by marriage and parenthood. The influence of educational level is investigated for women only.

Keywords: labour force participation; fertility; family; Belgium.

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1 | Introduction

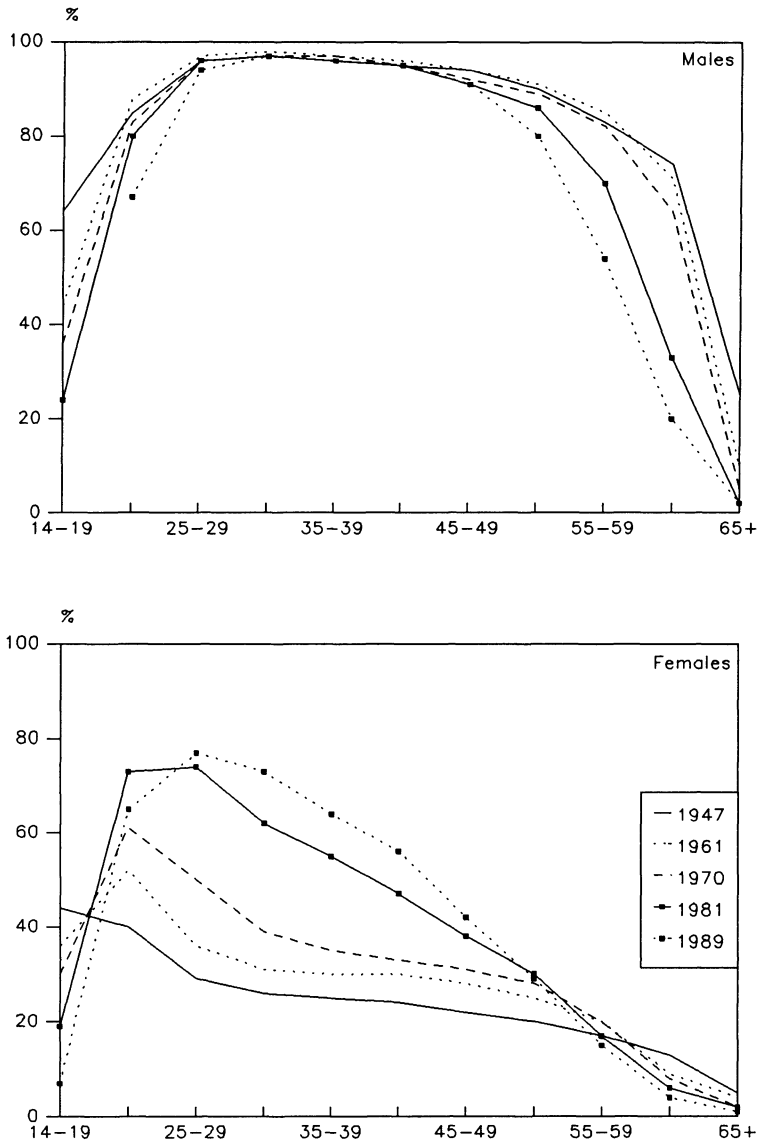
There is a consensus that in modern, industrialized societies there is a negative relationship between fertility and female employment. Women involved in the labour force have fewer children than those who are housewives. The presence of children reduces the chance that women will be in the labour force (Siegers *et al.*, 1991). Two important aspects of the societal context for individual decisions on family-building and employment have changed radically since 1970: (1) The availability of nearly perfect control over reproduction nowadays, (2) The changing social climate in which working mothers have become the rule rather than the exception (Bernhardt, 1993).

This study only deals with the latter change, of which the general quantitative aspects are well documented. In Belgium, age-specific activity rates for women —particularly for women aged 25 to 49 years— have been growing continuously since the end of World War Two (see *Figure 1*). On the other hand, male age-specific activity rates have remained constant over the same period. This recent rise in the female activity rate must be seen —especially in Belgium— against the concomitant rise in female part-time employment. With a total level of 25 percent female part-time employment, Belgium holds a moderate position in the European Union (CEC, 1993). The highest levels are found for the Netherlands, the United Kingdom, and Denmark (60%). Greece, Spain, Portugal, and Italy have the lowest levels (10%). The present moderate level of female part-time employment in Belgium must be evaluated against the low levels before 1980. In fact, Belgium belongs to those countries in the European Union where part-time employment increased significantly during the eighties. In 1988, there were about 485,000 part-timers in Belgium, approximatively 17% of all wage earners, twice as much as in 1983 (9%) (Ramioul, 1993).

Apart from these quantitative changes in labour force participation, it is even more important to distinguish qualitatively between part-time and full-time work. Part-time employment is a different type of work force involvement compared to full-time employment, as it gives priority to non-market activities around which the part-time job must be fitted. (Hakim, 1993).

What is the importance of both quantitative and qualitative changes in female labour force participation for fertility? Through a weakening of the incompatibility between work and motherhood, these changes could lead to higher levels of fertility. However, there is no convincing empirical evidence of the latter relationship. No wonder, if one bears in mind the overwhelming

Figure 1. Age specific activity rates by sex, Belgium, 1947-1989*



* The activity rate gives the proportion of the active population (including unemployed persons) over the total population.

Source: Kabinet van de Staatssecretaris voor maatschappelijke emancipatie (1989, p. 24) (1991, p. 33).

research agenda needed to resolve the problems involved: (1) Comparative studies between countries considering institutional factors, (2) Repeated micro-level studies of the life history type (Bernhardt, 1993).

The main aim of this study is to adequately describe changes in labour force participation of both men and women in terms of the family life cycle. But first a brief overview of the institutional context will be given. Without such an elementary insight into the institutional factors that have fostered the expansion of part-time employment in Belgium, recent changes in female labour force participation can hardly be understood.

2 | Context

In the 1960s, part-time employment in Belgium initially developed within a context of shortages on the labour market. At that time, it existed almost exclusively of women who wanted to combine a household with a limited career. The employment crisis in the 1970s created the conditions for a radical change in the structure of part-time employment. In these circumstances, part-time employment has become a matter of redivision of labour (substitution of full-time by part-time jobs) and flexibility (Ramioul, 1993). The type of part-time employment that has grown since is dominated by the presence of weak groups on the labour market (e.g. female, young, low education) (Ramioul, 1993). As such, there is some distinction between voluntary (1960s) and involuntary (1980s) part-time employment.

During the 1980s, the Belgian government has been very actively promoting part-time employment. Since 1981, the legal integration of part-time employment is complete. Regulations in labour and social security laws were adapted (CAO no. 35)[1]. Previously, the legal framework for part-time labour had almost been nonexistent. At first, measures promoted voluntary part-time employment. Next, several measures were taken to reduce unemployment. The most successful is the 'part-time labour to escape unemployment' system which offers supplementary unemployment benefits for those who want to work full-time, but can only find a part-time job. Moreover, if one becomes unemployed again, full unemployment benefits apply. As a result, this system

[1] In Belgium, many aspects of collective labour relations are regulated by collective agreements (CAO) between the representative organizations of employers and employees.

has grown considerably from 20,000 beneficiaries in 1982 to 200,000 in 1989 (Holderbeke, 1991).

In 1993, the federal government considerably reformed this 'escape unemployment' system. One of the reasons for this change is the persisting high public debt rate in Belgium, which the country is desperately trying to bring back to a more moderate EC level. For those already in the system, the additional benefits will be abolished by the end of 1995. Since June 1993, new 'escapers' no longer receive any benefits. At this stage, it is not quite clear how people will respond to this change in policy. Perhaps unemployment will become preferable, as the benefits of a part-time job become less pronounced.

Female part-time work is most prevalent in the private sector, blue collar: 40%; white collar: 36%, compared to 25% in the public sector (Holderbeke, 1990). In 1986, the tertiary sector accounted for 90% of part-time work. Services sectors in which part-time work often occurs are trade, catering, banks, insurance companies, cleaning services, health, and education (Ramioul, 1993).

3 | Methodology

3.1. Data collection

The present study draws heavily upon data from NEGO V, the fifth Fertility and Family Survey of the Flemish Population and Family Study Centre (CBGS). It is part of the Fertility and Family Survey (FFS) project of the United Nations Economic Commission for Europe. Its main focus is on reproductive behaviour, to be seen however in the broader context of partnership and family history, and the interaction between employment and reproduction (Cliquet *et al.*, 1992).

Ever since the survey in 1971 (NEGO II), the CBGS has extended its large-scale fertility investigations to partnership and reproductive behaviour. The increasing importance given to the interplay between employment and reproduction prompted the CBGS to also include a comprehensive 'activities'[2] life history and other issues in NEGO V, such as gender roles,

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[2] The term 'activities' refers to all possible types of activity statuses (e.g. unemployment, part-time employment, housekeeping).

division of tasks, childcare, and occupational aspirations related to family and non-family activities.

Consequently, the core of NEGO V consists of three biographies: activity status or 'activities', partnership, and fertility[3]. These biographies are completed with subject-specific sets of questions on preferences, intentions, and resources of the respondent.

The life course history on 'activities' covers the sequence of all types of 'activities' since the end of full-time day education. The 'activities' variable allows the recording of variation in type and duration of occupational activity (full-time or part-time) and inactivity (voluntary and involuntary). Besides these dynamic data, information on the current status of educational level, type of occupation, income, deviating work schedules, place of work, and additional occupation is also available.

The Belgian FFS project consists of two separate investigations, one in the Flemish region and another in the Brussels Capital region. Wallonia did not take part in this project. In the Flemish region, the fieldwork took place in the first half of 1991: 2897 women and 1879 men, aged 20 to 39 years, of Belgian nationality were interviewed at home, irrespective of Civil Status (Callens, 1994)[4].

The registration of a detailed 'activities' history is confronted with at least two main problems. The first problem deals with the choice among several typologies. The second relates to the choice of a unit of time to register the changes involved.

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[3] Partnership history has three dimensions: civil status, living arrangement, and intimate relationship. Combining those three dimensions allows us to identify all possible types of partnerships. The biography on children records data on those children who ever belonged to the household of the respondent, irrespective of their kinship status. This biography includes data on how and when children arrived and possibly left the household.

[4] In the Brussels Capital region, the survey was held in 1992 and 1993 among 2350 women and men belonging to a subgroup: (1) Dutch-speaking Belgians (339 women, 320 men), (2) French-speaking Belgians (291 women, 242 men), (3) other Europeans (244 women, 148 men), and (4) Moroccan (381) and Turkish (385) women (Daelemans and Callens, 1994). As the fieldwork in the Brussels Capital Region was not completed until November 1993, the present analysis is restricted to the situation in Flanders.

The NEGO V 'activities' typology is inspired by the policy-oriented approach of the research on (in)compatibility of work and family (Bosman and Van Dongen, 1989). From this point of view, different 'activities' facilitate or hamper the combination of family and employment careers in the different stages of the family life cycle. From the early 1980s on, as a response to the competitive pressure in the market sector and to the persisting high-level unemployment rates, a multitude of new, so-called flexible types of activity emerged (Ramioul, 1993). Within the scope of a survey like the FFS, it is impossible to adequately grasp the full details of this ongoing process.

Consequently, the NEGO V 'activities' typology presented in *Scheme 1* is fairly restrictive. It has two main conceptual ideas. The first one opposes (part-time and full-time) occupational activity to occupational inactivity. The second makes a distinction between voluntary occupational inactivity (e.g. career break) and involuntary occupational inactivity (e.g. unemployment). This severe reduction of real life has been tempered with two 'other' categories: other 'activities' (such as the combination of higher education and full-time employment) and 'periods of irregular employment'. If several 'activities' are combined (e.g. career break and a part-time job), only one category is recorded, according to the following hierarchical rules: (1) occupational activity comes before inactivity, (2) involuntary inactivity takes precedence over voluntary inactivity.

Only those changes in 'activities' had to be dated —with monthly precision!— which have lasted at least three consecutive months[5]. The end of full-time education represents the starting point of this retrospective exercise.

Clearly, this type of information does not allow a detailed retrospective reconstruction of occupational or job mobility. But it does allow the study of individual movements in and out of the labour market and movements between positions in the labour market (e.g. between regular full-time employment and part-time employment). These so-called labour force courses are far less problematic concerning the reliability of retrospective data because they use clear-cut categories like 'employment' or 'unemployment' (Berger *et al.*, 1993).

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5 The gain in precision by using one-month periods is doubtful because of extra recall error and respondent burden.

Scheme 1. Overview of the 'activities' typology (NEGO V, 1991)

Occupational activity	- Full-time employment - +/- 75% employment - Half-time employment - +/- 25% employment	
Occupational inactivity	- Involuntary	- Unemployment - Disability - Military or alternative service
	- Voluntary	- Career break - Household
Other 'activities'		
Irregular employment		

3.2. Analysis

Previous studies of the interaction between employment and fertility in Flanders and the Netherlands have been limited in scope by the nature of the observation plan of the surveys involved. Following Young (1977) for Australia, Pauwels (1982) used data of married women to construct sequences of labour force participation starting after marriage and ending after a third birth. Pauwels *et al.* (1988) and Mertens *et al.* (1992) used the same method, starting with the first birth. In comparison with mere cross-sectional descriptions, these studies have the advantage that they are longitudinal in design. However, the dichotomous nature of the models poses two severe problems. The first problem is connected with the emergence of part-time employment as a sociologically distinct category. If we make no distinction between part-time and full-time employment, results become meaningless because part-time employment is not merely one half of full-time employment. At first sight, this problem can be solved by creating a trichotomy. But what to do with alternating sequences of part-time and full-time employment? The only solution is to extend the trichotomy into a continuum, which precisely considers the relative importance of part-time employment, full-time employment, and diverse forms of non-employment.

The strategy of using average working hours as a summary measure (e.g. Camstra, 1993) has not been followed here. Such a strategy is based on the assumption that the diverse 'activities' are unidimensional and continuous in nature. Although doubtful, this may be the case from an economic perspective. However, in the study of the interaction of 'activities' and family formation, one cannot deny the multidimensional and discrete nature of different types of 'activities'. It has been proven that unemployment and housekeeping spells do have a different impact on the timing and intensity of fertility in Flanders (Impens, 1987). Combining both phenomena into a single category, i.e. not working or working zero hours, would mask such findings completely. Reducing the sociological difference between part-time and full-time employment by comparing the number of working hours could disguise even more social reality (Blossfeld and Röhwer, 1993).

This study takes full advantage of the labour force course design of NEGO V. It takes into account the relative importance of the different labour force statuses by measuring their duration. To keep tradition alive, methodological inspiration is found in Australia (Santow, 1989). An age-cohort table is constructed for each phase in the family life cycle (e.g. the phase following the end of full-time education, but before marriage occurs) and for different 'activities' containing (average) percentage of time spent in each of the corresponding activity statuses. The construction of such tables implies a considerable amount of programming. Fortunately, errors due to incorrect programs are easy to detect. For every age-cohort cell, the sum of the percentages of all the different 'activities' must be one hundred.

4 | Results

First, a description of the relative importance of different 'activities' at the time of the interview is given. Male and female patterns of 'activities' across age and for different selections (all, married, with children) are compared. Next, the results of a cohort analysis are presented. In this longitudinal approach, male and female patterns of 'activities' are compared across three stages in the family life cycle: (1) The period between the end of full-time education and marriage or a first child, (2) The period between a first marriage and a first child, (3) The period after the first child was born. This kind of approach allows an analysis of differences across the life course and across generations.

4.1. Cross-sectional results

4.1.1. Age and 'activities'

Table 1 presents the incidence of different 'activities' by sex for four age groups at the time of the interview. Clearly, employment is the dominant 'activity' for both sexes, but male employment still considerably outnumbers female employment. Throughout the age groups 25-29 to 35-39, male employment comes close to unity (i.e. 95%), whereas female employment decreases from 78% for the youngest age group to 70% for the oldest age group.

Table 1. 'Activities' by sex and by age group at the time of the interview (In %) (NEGO V, 1991)

'Activities'	Males Age group				Females Age group			
	20-24	25-29	30-34	35-39	20-24	25-29	30-34	35-39
Education	**24**	**1**	**0**	**0**	**18**	**0**	**0**	**0**
Employment	**65**	**94**	**96**	**96**	**69**	**78**	**70**	**70**
Full-time	63	92	95	95	56	55	46	45
Part-time	1	2	1	1	13	23	24	25
Inactivity	**10**	**4**	**3**	**2**	**11**	**20**	**27**	**27**
Unemployment	5	3	2	0	9	11	10	6
Work incapacity	0	0	0	2	1	1	1	2
Military service	5	1	1	0	-	-	-	-
Career break	0	0	0	0	1	3	4	1
Household	0	0	0	0	0	5	12	18
Other	**1**	**0**	**0**	**1**	**2**	**2**	**3**	**3**
Irregular employment	1	0	0	0	1	1	1	1
Other	0	0	0	1	1	1	2	2
N= 100%	443	505	485	446	650	806	765	676

Source: Population and Family Study Centre (CBGS), Brussels.

When considering part-time and full-time employment separately[6], more sex-specific employment behaviour becomes apparent. Male part-time employment is very limited (1%). On the other hand, one out of four women aged 25 to 39 works part-time. It is important to note the decrease of female full-time employment with age, paralleled by an increase in female part-time employment.

Female inactivity differs from male inactivity in many respects. To start with, female inactivity in the age range 25 to 39 (25%) is almost as important as female part-time employment, whereas male inactivity in the same age range (3%) is not very prevalent. Furthermore, a pronounced sex-segregated picture becomes clear. Male inactivity is exclusively involuntary (unemployment, work incapacity, or military service) and tends to decrease with age. On the other hand, the female inactivity pattern is predominantly composed of voluntary inactivities (career break or household), which are more important in the older age groups. Nevertheless, female unemployment still considerably outnumbers male unemployment.

4.1.2. Marriage, parenthood, and employment

Marriage and (especially) parenthood negatively affects female employment behaviour. This is a well-established relationship in modern Western societies. Many studies have confirmed this empirically. Two important reasons account for this relationship. The first has to do with the sex-segregated roles in modern western societies. A conventional division of tasks assigns women to homemaking and childbearing, while the husband earns the livelihood for the family. The second reason has a more structural nature. Most modern western societies simply do not provide enough opportunities to allow parents to combine work and family harmoniously.

The impact of marriage or parenthood on male employment behaviour is far less documented. As will be argued elsewhere, there are reasons to believe that male employment behaviour is very rigid in this respect. At present, there are no indications that male labour force participation is changing at all.

Table 2 illustrates the effect of marriage and parenthood on labour force participation. For both sexes, full-time and part-time employment by age at

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6 Part-time employment is defined here as employment which respondents regard as being part-time. This 'self-reported' approach has been chosen to minimize respondent burden.

the time of the interview is compared for three different samples from NEGO V: (A) All, (B) Married, and (C) With child(ren). The results for the age group 20-24 are difficult to interpret in the context of marriage or childrearing, as many persons in this age group are still enrolled in education. Because the timing of family and employment events is greatly dependent on the timing of the end of full-time day education, the results of the youngest age group are not further considered.

Table 2. *Employment by sex and by age group at the time of the interview:* ***(A) All, (B) Married, (C) With child(ren)*** *(In %) (NEGO V, 1991)*

'Activities'	Males Age group				Females Age group			
	20-24	25-29	30-34	35-39	20-24	25-29	30-34	35-39
A. All								
Employment	**65**	**94**	**96**	**96**	**69**	**78**	**70**	**70**
Full-time	63	92	95	95	56	55	46	45
Part-time	1	2	1	1	13	23	24	25
N=100%	581	667	639	589	540	670	636	562
B. Married								
Employment	**100**	**97**	**98**	**98**	**81**	**77**	**69**	**69**
Full-time	98	96	97	98	65	51	43	42
Part-time	2	1	1	0	16	26	26	27
N=100%	85	422	511	481	188	504	535	476
C. With child(ren)								
Employment	**87**	**96**	**98**	**96**	**61**	**70**	**67**	**68**
Full-time	83	95	97	95	33	41	40	42
Part-time	4	1	1	1	29	29	27	26
N=100%	31	100	489	489	69	409	531	499

Source: Population and Family Study Centre (CBGS), Brussels.

When comparing the working behaviour of married women in the age range 25-39 with all women in the same age range, only minor differences seem to exist[7]. Employment rates are slightly lower when married (- 1%). However, such 'total employment' rates mask the dynamic interplay between part-time and full-time employment. Married women work part-time more often (+ 2%) but less full-time (- 3%). When focusing on the working behaviour of women with child(ren), differences become more pronounced in the age range 25-34. The presence of child(ren) negatively affects 'total employment' rates (- 8% to - 3%). Dividing 'total employment' into part-time and full-time employment reveals even more dissimilarities. Women with child(ren) work part-time more often (+ 6% to + 3%) than in general. The presence of child(ren) considerably affects being able to work full-time (- 14% to - 6%).

In the age range 25-39, male working behaviour in combination with marriage and/or child(ren) differs little from male working behaviour in general. Married men work full-time slightly more often (+ 3%). In the case of men with child(ren), there seems to be no difference at all. Working part-time is equally rare for all men, irrespective of being married or having child(ren).

4.2. A longitudinal approach

In Section 4.1., employment was related cross-sectionally with age and the family life cycle. Such an approach has to be considered as exploratory. Elsewhere, it was shown that much of the cross-sectional evidence of relationships between variables is simply due to the structure of the data (Blossfeld and Huinink, 1991). This is especially the case when the phenomena under study are of a very dynamic (i.e. time-varying) nature, as in the study of the interaction of the employment career and the family life cycle. The longitudinal approach, used in the next sections, provides a far more valid basis for making inferences.

4.2.1. Age and employment

Table 3 includes six age-cohort data triangles, each corresponding to one of three different types of 'activities' (A: Full-time or part-time employment, B: Part-time employment, C: Full-time employment) for men and women. Each age-cohort triangle contains (average) percentages of person-years spent working during the age span 15-19 up to age span 30-34. These results are

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[7] In NEGO V, such differences are not statistically discernible at the 5% error level.

given separately for four five-year birth cohorts (1966-70, ..., 1951-55). Only results for completed five year age spans are shown[8].

Table 3. *Person-years spent working:* ***(A) Full-time or part-time, (B) Part-time, (C) Full-time*** *for selected ages, by birth cohort (In %) (NEGO V, 1991).*

Birth cohort	Males Age				Females Age			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
A. Full-time or part-time								
1966-70	12				12			
1961-65	19	68			17	63		
1956-60	30	75	96		27	67	74	
1951-55	31	76	94	96	35	74	70	70
B. Part-time								
1966-70	1				2			
1961-65	1	2			2	12		
1956-60	1	1	2		1	5	14	
1951-55	0	0	0	0	1	3	10	17
C. Full-time								
1966-70	11				10			
1961-65	19	67			15	51		
1956-60	30	74	94		26	63	60	
1951-55	30	76	94	96	34	70	60	52

Source: Population and Family Study Centre (CBGS), Brussels.

[8] The results for incomplete five-year age spans —due to truncation at the time of the interview— tend to disproportionally represent each one-year cohort in a five-year cohort.

The interpretation of a single age-cohort data triangle is straightforward. A life cycle perspective is possible by comparing columns. Generational differences can be assessed by comparing rows. However, a period interpretation is limited to periods of ten years. This is done by comparing diagonals in the data triangle. For example, the 1951-55 birth cohort was aged 25-29 during the period 1981-90. This period corresponds to the upper diagonal drawn from the top left corner. The diagonal immediately beneath it, corresponds to the period 1976-85.

By comparing rows, columns and/or diagonals of horizontally adjacent data triangles, sex-specific behaviour can be revealed. 'Activities'-specific behaviour can be assessed by comparing vertically adjacent data triangles.

If one compares full-time or part-time employment of birth cohorts (Panel A, Table 3), one notices that the younger cohorts in the age range 15-24 spend much less time working full-time or part-time than the older cohorts. The same pattern applies for men. One explanation for this changing work experience at younger ages relates to education. Indeed, as shown in *Table 4*, the proportion of time spent in education for the age range 15-19 years increases from 59% for the oldest female cohort to 84% for the youngest female cohort. For the age range 20-24 years, the increase is even greater: from eight to 16%. The opposite occurs in the case of time spent working: a decrease from 35 to 12% in the age range 15-19 years and from 73 to 63% in the age range 20-24. Men behave similarly, but less pronounced in these respects. Above the age of 24, a rise in time spent in education only occurs to a limited extent. This is true for both women and men. In other words, the extension of the period of full-time day education delays entry into the labour market. Consequently, first marriage and birth of the first child are considerably postponed (Callens and Schoenmaeckers, 1993).

By dividing employment in Table 3 into part-time employment (Panel B) and full-time employment (Panel C), the recent rise in female part-time employment in Flanders becomes evident. Apparently, from a cohort perspective, female full-time employment has been substituted by part-time employment. From a life course perspective, female part-time employment increases with age. On the other hand, women tend to work full-time less often when they are past 20-24. Considering male part-time employment and full-time employment separately shows that the rise in male part-time employment is marginal in comparison with similar female developments.

Table 4. Person-years spent in different 'activities' at selected ages by birth cohort (In %) (NEGO V, 1991)

Birth cohort	'Activities'	Males Age					Females Age				
		10-14	15-19	20-24	25-29	30-34	10-14	15-19	20-24	25-29	30-34
1966-70	Education	99	82				100	84			
	Part-time	0	1				0	2			
	Full-time	1	11				0	10			
	Other	0	6				0	4			
1961-65	Education	99	73	20			99	73	16		
	Part-time	0	1	2			0	2	12		
	Full-time	1	19	67			1	15	51		
	Other	0	7	11			0	10	21		
1956-60	Education	98	63	16	1		98	65	12	0	
	Part-time	0	1	1	2		0	1	5	14	
	Full-time	2	30	74	94		1	26	63	60	
	Other	0	6	9	3		0	8	20	26	
1951-55	Education	98	62	17	1	0	97	59	8	0	0
	Part-time	0	0	0	0	0	0	1	3	10	17
	Full-time	2	30	76	94	96	2	34	70	60	52
	Other	0	8	7	5	4	0	6	19	30	31

Source: Population and Family Study Centre (CBGS), Brussels.

4.2.2. The family life cycle and employment
How does employment vary over the family life cycle? Which changes in employment occur when people get married or when children are born? As the Nego V sample is based on a relatively young age structure (20-39), it cannot offer much reliable information beyond the initial stages of the family life cycle. It is difficult, for example, to study labour force movements in relation to divorce and remarriage or when children are growing up. Thus, here the family life cycle is only considered in relation to first marriage and parenthood.

Male and female employment are compared across three different periods in the family life cycle: (1) A period following the end of education and before marriage or before parenthood (See *Table 5*: No spouse or children); (2) A period following marriage but before parenthood (See *Table 6*: Spouse but no children); (3) A period following the birth of the first child (See *Table 7*: At least one child). The term 'period' is preferred to 'stage' or 'phase'. The latter two terms suggest the existence of a 'one and only' (family) life cycle. Such a 'natural' family life cycle is composed of a fixed sequence of (family) events: leaving school, getting a job, getting married, and having a child. Nowadays, this 'natural' order of events (e.g. getting married before having a child) is increasingly under pressure.

For each period, (average) percentages are calculated for time spent working: (A) Full-time or part-time, (B) Part-time only, (C) Full-time only. These percentages are based on the number of person-years spent in each period. In addition, for each period, controls, are introduced for age (15-19, 20-24, 25-29, 30-34) and for birth cohort (1966-70, 1961-65, 1956-60, 1951-55).

Table 5 provides the results for the period 'No spouse or children'. This period starts when a person has finished full-time day education. It ends at the time when someone (1) marries, (2) has a child, or (3) is interviewed. Thus, persons who have not completed their full-time day education are excluded from this analysis. Therefore, the results for the 1966-70 cohort are biased towards lower levels of education.

In this 'No spouse or children' period, 'total employment' levels (See Panel A) of both men and women exceed 80% at ages over 19 and for every cohort. At ages over 24, male employment levels are somewhat higher (+six to +11%) than female ones. Classic explanations for these differences between the two sexes are arguments in favour of the sex-segrated

Table 5. *Person-years spent working:* ***(A) Full-time or part-time, (B) Part-time, (C) Full-time*** *at selected ages, by birth cohort (In %). No spouse or children (NEGO V, 1991)*

Birth cohort	Males Age				Females Age			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
A. Full-time or part-time								
1966-70	68				77			
1961-65	70	81			68	81		
1956-60	81	84	95		81	85	89	
1951-55	82	87	91	93	87	88	84	82
B. Part-time								
1966-70	5				12			
1961-65	2	3			8	13		
1956-60	2	1	5		4	6	10	
1951-55	1	0	0	0	2	3	4	4
C. Full-time								
1966-70	64				66			
1961-65	68	78			60	68		
1956-60	79	83	90		77	79	79	
1951-55	81	86	90	93	85	84	81	79

Source: Population and Family Study Centre (CBGS), Brussels.

functioning of the labour market (e.g. higher female un-employment rates, slower female entry into the labour market). At ages below 25, there are no differences between the sexes. One possible explanation for this gender equality is simply that military service interferes here for men.

The part-time employment age-cohort pattern (Panel B) is fairly similar for men and women. Obviously, from a cohort perspective, younger cohorts work part-time more often. From a life course perspective, part-time employ-

Table 6. *Person-years spent working:* ***(A) Full-time or part-time, (B) Part-time, (C) Full-time*** *at selected ages, by birth cohort. (In %). Spouse but no children. (In %) (NEGO V, 1991)*

Birth cohort	Males Age				Females Age			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
A. Full-time or part-time								
1966-70	100				78			
1961-65	79	96			57	82		
1956-60	69	94	97		73	85	89	
1951-55	82	96	96	96	84	90	86	78
B. Part-time								
1966-70	0				12			
1961-65	0	1			12	16		
1956-60	0	0	1		2	4	8	
1951-55	0	0	0	0	1	3	6	5
C. Full-time								
1966-70	100				65			
1961-65	79	95			46	66		
1956-60	69	93	95		71	81	81	
1951-55	82	96	96	96	83	87	80	73

Source: Population and Family Study Centre (CBGS), Brussels.

ment increases with age. However, this is not the case for the 1951-55 cohort. There is almost no change across age (+ 2%). Female part-time employment levels vary from two to 4% and male part-time employment is nonexistent. On the other hand, female part-time employment levels differ considerably from male part-time employment levels at every data point in the age-cohort triangle. The highest levels are found in the 1980s (see the

Table 7. *Person-years spent working:* ***(A) Full-time or part-time, (B) Part-time, (C) Full-time*** *at selected ages, by cohort (In %) At least one child (NEGO V, 1991)*

Birth cohort	Males Age				Females Age			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
A. Full-time or part-time								
1966-70	79				18			
1961-65	97	95			23	50		
1956-60	96	97	97		51	55	66	
1951-55	87	96	96	97	47	62	65	68
B. Part-time								
1966-70	0					2		
1961-65	0	0			3	16		
1956-60	0	0	0		6	6	17	
1951-55	0	0	0	0	1	5	12	19
C. Full-time								
1966-70	79					16		
1961-65	97	95			20	34		
1956-60	96	97	97		45	49	49	
1951-55	87	96	96	97	46	57	53	48

Source: Population and Family Study Centre (CBGS), Brussels.

far right diagonal line of each data triangle). Then, female part-time employment reached levels up to 13%, whereas maximum male part-time employment levels did not exceed 5%.

The comparison of full-time employment levels (Panel C) by sex tempers initial enthusiasm about gender equality which is based on 'total employment' levels at younger ages. Female full-time employment is lower than male full-time employment at every age, for every cohort. Moreover, the full-time

employment gap between the two sexes has widened in recent years, due to the rise in female part-time employment.

To sum up, in the 'No spouse or children' period of the family life cycle, the differences between men and women are particularly level-bound. At each age-cohort cell, male full-time employment is higher than the female one and, vice versa, male part-time employment is lower than the female one. However, in subsequent periods of the family life cycle, a more sex-segregated pattern becomes dominant.

The results for the 'Spouse but no children' period are presented in Table 6. This period starts when a person gets married and ends when a child is born or when a person is interviewed. In this period, the male age-cohort patterns for total, full-time, and part-time employment are remarkably uniform. Compared to the 'Before Marriage' period, two important differences emerge. First, total and full-time employment levels are now indifferently high (95%). Second, male part-time employment has almost disappeared. On the other hand, female employment in the 'Marriage' period and in the 'Before marriage' period does not seem to be different at all. Only a few minor differences occur.

Marriage does not seem to negatively affect female labour force participation anymore. On the other hand, full-time labour force involvement probably acts as a precondition before a man gets married. If the previous two assumptions apply, then the timing of marriages should be more affected by male labour force conditions than by female ones. This would also imply that norms related to labour force participation are far more rigid for men than for women.

Table 7 gives the results of the 'At least one child' period. This period starts when a child is born and ends at the moment of the interview. By comparing the results for this period of the family life cycle with those of the 'Marriage' and the 'Before Marriage' period, the general effect of the presence of children on employment behaviour becomes clear. We now notice that the female employment pattern has changed. Compared to both periods without children, female full-time employment levels have dropped in every age-cohort cell (up to - 50% for the 1961-65 birth cohort at ages 20-24). On the other hand, female part-time employment levels have risen considerably (up to +300% for the 1951-55 birth cohort at ages 30-34). In this period, female part-time employment combined with motherhood accounts for up to one-third of female total employment (the 1961-65 birth cohort at ages 20-24).

This represents an increase of 100% (1961-65 birth cohort) to 600% (1951-55 birth cohort) with respect to the period 'Before Marriage'.

The presence of children does not seem to affect male employment very much. Compared to the 'Marriage' period, there are only minor differences: (1) Full-time employment becomes even more pronounced and (2) Part-time employment has disappeared completely. These two minor changes among males are opposite to the changes in the female employment level. Thus, the presence of children greatly affects the segregation between male and female employment behaviour.

4.2.3. Part-time employment and education

The relation between female employment behaviour and educational level is summarized in *Table 8*, by using the ratio part-time over full-time employment in the parenthood period, where it can be interpreted as an indicator for sex-specific employment behaviour. A high ratio means more female-like employment behaviour. A low ratio means more male-specific employment behaviour. These ratios are given for three educational levels (low, medium, high) for different birth cohorts (1951-56, 1966-70) at selected ages (20-39)[9].

High part-time/full-time ratios seem to be connected with high level of education. However, this is only the case for the oldest birth cohort. The ratios for the high education group of the 1951-55 birth cohort are considerably higher at all ages compared to lower and medium education. The relation is different for younger birth cohorts, as their low and medium educational levels show higher ratios. Apparently, part-time employment has become more widespread among women in Flanders during the 1980s.

5 | Conclusion

During the eighties, a substantial change occurred in part-time employment. Before 1980, part-time employment levels in Belgium were among the lowest in Europe. One decade later, Belgian part-time employment levels have become moderate. This expansion has been made possible because of the

[9] The male equivalent of Table 8 is not presented here, because in this period of the family life cycle male part-time employment is nonexistent, irrespective of educational level.

Table 8. Ratio of female part-time/full-time employment by educational level, at selected ages, by birth cohort. At least one child. (NEGO V, 1991)

Birth cohort	Education*											
	Low				Medium				High			
	Age				Age				Age			
	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34	15-19	20-24	25-29	30-34
1966-70	18				0				-			
1961-65	13	28			7	36			-	21		
1956-60	12	10	23		12	8	24		-	19	29	
1951-55	0	6	15	23	7	9	16	29	-	15	25	34

*: Low = primary and secondary (first cycle), Medium = secondary (second cycle), High = higher education
Source: Population and Family Study Centre (CBGS), Brussels.

active promotion of part-time employment —especially the system to escape unemployment— by the federal government. Female full-time employment levels declined considerably. The rise in male part-time employment was far less substantial.

This study used retrospective (labour force) data from the Flemish Fifth Fertility and Family Survey (NEGO V) to describe changes in employment behaviour from a longitudinal point of view. The main focus was on employment shifts across the family life cycle. Special attention has been given to gender differences generated by marriage and parenthood.

In general, men work full-time more often, women part-time more often. These two differences between the sexes are least before marriage but maximum during parenthood. On the road to maximum sex-segregated employment behaviour, there seem to be two different mechanisms at work, one for each sex. Marriage is the crucial event in transforming male employment behaviour into its most extreme form, that of uniformly high levels (95%) of full-time employment. On the other hand, marriage does not seem to change female employment levels at all. It is motherhood that has a profound effect on female part-time and full-time employment levels, while it leaves male employment unchanged.

It has been hypothesized that male full-time employment acts as a precondition to marriage. If this is the case, then the timing of marriage is conditioned by male, but not by female, employment conditions. The negative influence of motherhood on female labour force participation is well-known. The combination of a full-time career and childrearing is no easy task. On the other hand, it is not clear whether the recent widespread growth of female part-time employment could have important consequences for fertility levels. However, as the federal government abolished the combination of part-time employment and part-time work from 1993 on, this could lead to lower female part-time employment levels in the near future.

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EUGENICS AND THE MENTAL HEALTH MOVEMENT IN THE NETHERLANDS 1930-1960

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Abstract. This article deals with the relationship between mental health care and the eugenics movement between 1930 and 1960 in the Netherlands. The followers of the eugenics movement believed that many manifestations of mental illness were based on a congenital defect and strived for measures to prevent reproduction of hereditary defects. In general, it should be concluded that although the eugenics problem —which showed little signs of a careful distinction between hereditary disease and congenital mental 'quality'— was taken seriously, people were averse to eugenic measures. People thought the genetic basis of eugenics was doubtful. Moreover, the proposed measures conflicted with the confessional, reproductive morality which dominated the Netherlands at that time.

Keywords: eugenics; mental health; the Netherlands.

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On the occasion of the 25th anniversary of the National Federation for Mental Care, the influential psychiatrist Querido (1959, p. 15) asserted that, particularly in the 1930s, genetics seemed to 'temporarily' play a stimulating role in the mental care movement. Of late, a number of broadcasts and a symposium of the Dutch Centre of Mental Care[1] seem to demonstrate a growing interest in anthropogenetics and reproduction technology. Hence a specific examination seems appropriate of the Dutch discussion on the subject of eugenics and its supposed impact on the mental health movement just before and after the Second World War.

1 | The eugenic formulation of the problem

When Francis Galton (1822-1911) published his *Inquiries into Human Faculty* in 1883, he introduced the concept of 'eugenics' for the first time in the international literature. As Marianne van Herwerden, Galtons most prominent adherent in the Netherlands concisely put it, in this study Galton examined the components "that improve or deteriorate the qualities of future generations" (Van Herwerden, 1929, p. 336). From that moment on, the concept and the movement spread quickly in the Western world, especially in the United States, Scandinavia, and Germany. Also in the Netherlands, a group of eugenicists joined together, supporting a 'qualitative' population policy. However, they were just a minority and not capable of realizing their program. Nevertheless, one can detect some susceptibility to the notions of eugenic problems at large.

Two issues are fundamental to eugenics. First of all, the conviction that both physical and mental qualities are mainly transmitted in succeeding generations by inheritance. This idea dates back to the genetic laws of Mendel (1822-1884), that were rediscovered in 1900. Secondly, most eugenicists were convinced that the process of humanization in modern society would more than ever stir up many weak and sick people to procreate a new generation. Formerly, due to the process of natural selection, 'deficients' had not been able to survive in the struggle for life. In the 20th century, a fatal counterselection would be inevitable. The relative increase in the lower classes, particularly the supposed fertility of the feeble-minded and the criminal, seemed to furnish proof for that point of view. The multiplying

[1] Symposium "Genetische technologie: een risico voor de psychiatrie?", organized in Zeist, 17 March 1989.

of mental institutions and schools for special education seemed to underline this option as well. They were considered signs of the times, indicating that a process of genetic degeneration was at hand. Eugenics can be seen as a form of culture criticism, mostly inspired by Social-Darwinism that was popular around the turn of the century. It induced the conception that prevention of 'deficiency' by means of selective birth control (prohibition of marriage, sterilization) should be a modern and humanistic answer to the reverse side of medical and philanthropic progress. Without intervention, civilization would be rampant with excessive 'mental minorities'.

Not only the Social-Darwinistic tradition, but also transmittance of 19th century hygienism proved to be of importance (Houwaart, 1983), certainly in Dutch eugenics. Hygienists reckoned the principle aim of medicine was not healing from illness, but guarding over health in society by means of a 'medical policy'. They cherished ideas of a medical state administration that would interfere deeply in the private life of citizens. In addition to 'public hygienics', 'private hygienics' should also be taken into consideration according to these hygienists. The aims eugenics strived for can in retrospect be seen as efforts to intensify private hygiene by interfering in the most private field of human life: procreation. In this sense, eugenics is a form of 'reproductive hygienics'. This powerful hygienistic tradition was undoubtedly vital to the concept of the Dutch eugenics movement. Pleas in favour of a solid selection for the preservation of the species were scarce and rather impopular. Steinmetz, one of the founders of Dutch sociology, held an exceptional position, when he spoke of child mortality as "weeding", and wondered if "the premature baby is a dejected, painful parody on our misplaced sensitivity" (Steinmetz, 1910, pp. 34-35). As a result, Dutch eugenicists were not only interested in the genetic quality of future generations, but also in the improvement of the social environment. In the end, that could be the answer to an optimal development of human hereditary quality. Prevention of 'germ damage' was in that respect a prominent concern. Also typical of Dutch eugenics is the continuous battle against venereal diseases during the first decennia of this century. Women, and to an increasing extent also children, should be protected by means of a compulsory medical examination before marriage (Treub, 1900).

Consequently, Dutch eugenics was of a moderate kind. A demand for medical prevention was sooner heard than a demand for race intervention. Next to medical-hygienistic principles, arguments in view of a population policy played an important part, but Dutch eugenics was in this respect more sensitive to class differences than to distinctions of race. Especially the

unequal contribution of the lower classes to the procreation of a new generation was considered as cause for great concern. Eugenicists were absolutely convinced that genetic deficiency occurred comparatively often in the lower strata and exactly there fertility was high. Ever since Steinmetz' research (1904), the fear of a decrease in the national level of intelligence brought about by the modern pattern of reproduction was a constant eugenic topic (Van der Heijden, 1941, *Het Gemenebest* 1949-50). It indicates that, like everywhere else, eugenics had a hybrid nature: congenital disease and innate stupidity were mentioned simultaneously as symptoms of a threatening process of degeneration. Moreover, it combined anxiety about individual suffering as a result of hereditary defective children with worries about the genetic quality of the population as a whole. Another complication is that many eugenicists tackled the race problem, especially in the initial phase of the eugenics movement. Racial segregation and immigration control were then considered as eugenic measures. From a historical point of view, there is no rigid line between eugenics and race hygienics. For many authors, like Steinmetz and Van Herwerden, these terms were synonymous, at least at the beginning of the century.

2 | The Dutch Eugenics Federation

In the Netherlands, an organized eugenics movement was slow to emerge. When the International Federation of Eugenics Organizations convened a meeting in Amsterdam in 1927, Van Herwerden had to confess that hardly anything had happened with respect to eugenics in these parts (Van Herwerden, 1929, p. 381). Since 1923 some associations cooperated, each of them covering a part of the eugenics problem: the 'Genetische Vereeniging' (Genetic Society), the 'Nederlandsch Nationaal Bureau voor Anthropologie' (Dutch Department of Anthropology) and, last but not least, the 'Vereeniging ter bevordering van het Geneeskundig Onderzoek vóór het Huwelijk' (Society for the Promotion of a Medical Examination before Marriage). Apart from *Mensch en Maatschappij* (Man and Society), that since 1925 pretended to cover eugenics, a specific eugenics periodical did not exist. In 1928, *Ons Nageslacht* (Our Offspring) was issued in the Dutch Indies. Two years later, in 1930, the Eugenics Federation was established. The above associations and the 'Nederlands Comité der Internationale Vereniging voor de Wetenschappelijke Studie van het Bevolkingsvraagstuk' (Netherlands Committee of the International Union for Scientific Investigation of Population Problems) took part in it. A specific eugenics periodical was not

published until 1935: *Erfelijkheid bij den Mensch* (Human Genetics), later *Afkomst en Toekomst* (Descent and Future).

Neither the Federation, nor the periodicals could boast about flourishing in the thirties. The apparent genetic determinism of eugenics encountered great opposition of an ideological kind. The taboo of the biological approach in the social sciences is of a later date, however (Köbben, 1989). Clerical parties labeled eugenics as 'pagan', materialistic, and even 'humanistic' (Waterink, 1931). Of course, Dutch eugenics was associated with the German race hygienics, even though they distanced themselves emphatically from the political-ideological jargon of many German colleagues. But no doubt the eugenic formulation of problems, characterized by multivarious concerns like hereditary illness and a decrease in national intelligence was taken seriously by many prominent scholars. It must be stressed, however, that they opposed concrete eugenic measures, on principal or at least on practical grounds.

The Federation had several hundred members. The themes dealt with included far more than eugenics alone. Even so, eugenics issues were by no means always undisputed. Population experts, for instance, were chiefly occupied with overpopulation. One of the most prominent members in this field, Bonger (1932), sociologist and criminologist, did not want to have anything to do with eugenics. In the Genetics Society, A.L. Hagedoorn was the most authoritative scientist, but he also expressed an unfavourable opinion on the eugenics movement (Hagedoorn *et al.*, 1933). It is not an easy task to estimate the number of devotees to the eugenics cause in the Netherlands. That members of the medical profession believed in the need of eugenical measures is quite obvious. Pre-eminently they were the ones that encountered incurable illness brought about by congenital defects. Treub, an obstetrician, became a propagandist of a medical examination before marriage as a result of his experiences as a doctor. The same applies to a number of gynaecologists and dermatologists. Some psychiatrists asserted that eugenics really could not be ignored. One of them was Van der Spek who urged, together with Van Herwerden, for large-scale research in the Netherlands (Van Herwerden & Van der Spek, 1923). Frets, a doctor in a mental home and organizational pivot in the Federation after the death of Van Herwerden, should also be mentioned here.

Certainly, only a small number of pioneers can be discerned. But, the eugenics movement got a lot of attention from outside. Genetic research, especially on identical twins, turned out to be spectacular and promised a fundamentally new understanding of causes of physical and mental defects.

Scholars with enough courage to take new and not very popular points of view seriously were expected to show interest in the new science. Eugenics seemed highly promising, especially to those not involved in the complexity of human genetics. Most medical doctors lacked knowledge in this respect. It is not surprising that the Federation, looking for associations suitable to join, arrived at medical institutions. The Federation had in mind the 'Instituut voor Praeventieve Geneeskunde' (Institute for Preventive Medicine), established in 1929 in Leiden, as well as the 'Kruisverenigingen' (Community Nursing Services) and the 'Nederlandsche Vereeniging voor Geestelijke Volksgezondheid' (Dutch Society for Mental Health).

3 | Eugenics and mental hygienics

The leading principle of the mental health movement, mental hygienics at that time, was particularly propagated by Bouman, Professor in psychiatry at the University of Amsterdam. He aspired to intensify care for mental patients and feeble-minded persons by extending prevention. Care should not be restricted to the psychiatric clinic itself, but focus its attention to the outside as well. Pioneers like Bouman were endowed with a feeling of social responsibility, who intended to fight pathogenic elements in society itself. Mental hygienics meant medical prevention par excellence. Prevention was the vital link between the aims of some mental hygienists and eugenics. Bouman, chairman of the Dutch Society for Mental Health, was particularly interested in the problems of human genetics as he showed in his inaugural lecture (Bouman, 1916). In 1930 he addressed Van Herwerden, appealing her to advocate eugenic ideas to a panel of mental hygienists. Earlier, she had been involved with mental health, namely in 1924, when an attempt had been made to establish a new society. Even at that time a section for genetics and eugenics had been planned (Schuurmans Stekhoven, 1928, p. 125).

Van Herwerden prepared herself for a confrontation with mental health professionals, as she assumed she would meet a wall of resistance and incomprehension (Van Herwerden, 1948, p. 207). However, a confrontation did not occur as she had to be absent due to illness. The text of her speech was published in the *Psychiatrische en Neurologische Bladen* as well as in *Ons Nageslacht* and it is very expressive. She dwells at length on resolving the misunderstanding that eugenicists would not be susceptible to Christian charity in favour of mentally handicapped persons. "The care for the disabled" she called "a grim requirement of civilisation". "But there is no denying", she continuated, "that a civilised nation should have charity as well

as prophylaxis and biological insight" (*Ons Nageslacht*, 1931, pp. 110-111). According to her view, eugenicists and mental hygienists shared a common interest in the prevention of illness. She considered it quite a remarkable phenomenon that modern psychotherapy had seen advantages, but "had not noticed the dangers of this altered attitude as far as the care of mental deficients was concerned". The mental hygienists had adjusted their attitude as they aimed to correct pathogenic circumstances, and suggested integrating psychiatric patients in better living conditions. The view of the hygienists stressing the importance of 'external duty', the care outside the clinic, would prove to be very hazardous in case eugenic precaution was non-existent. Patients living in a mental home were at least not able to procreate. Eugenicists considered the impediment of reproduction as a major goal and an essential part of prevention.

The basic eugenic conception of mental health obviously relies on Van Herwerdens plea. Old-fashioned care in a mental home was strongly condemned and rejected as unnecessarily expensive. Since eugenicists assumed that detainees mainly suffered from a hereditary disorder, they considered impediment of reproduction as the single effective form of prevention. Integration in society, however, would prove to be contraproductive, unless curtailing fertility could be seriously considered. In that case, sterilization would be the most effective and, according to eugenic opinion, most human. Only now can we conceive how vehemently opinions clashed at that time. In real terms, many eugenicists propagated neo-Malthusian contraceptives, which were not accepted as strong and passionate arguments against sexual reform were prevalent in the thirties. Yet eugenics persuaded some Protestant and Catholic psychiatrists that enforced sexual continence was the only way. The Catholic medical superintendent of 'Servatius' in Venray, for instance, argued that intended marriage of patients could be an additional motive for hospitalization. As a Catholic doctor, he was of course not in a position to plea for banning marriage or sterilization (the papal encyclical 'Casti Connubii' interdicted both in 1930). Hospitalization on eugenic grounds seemed to be the only resolution for him (Havermans, 1940, p. 173). Non-denominational eugenicists considered this point of view as inhuman, not without reason (Bijlmer, 1938). In 1933, Frets pointed out that the growing number of patients and children in the 'external duty' (he observed in his own practice an increase in the number of children from 5 in 1928 till 24 in 1930) justified an intervention by sterilization (Frets, 1933, pp. 27-28).

Van Herwerden embraced a more prudent attitude as she refrained from advocating the most emotionally onerous measures. Instead she pointed out problems caused by a new trend in mental health care. Exponents of mental welfare were not unanimously set against these thoughts. Both Bouman and Van der Spek were supporting the ideas from the very beginning. He agreed far-reaching to the cautious approach of Van Herwerden. Later on he even participated as chairman of the eugenics section of the reorganization committee for mental health. Van der Scheer, who in the same year delivered his inaugural address, also avowed to the cause. If indeed hereditary factors were of the utmost importance for creating mental deficiency, "the problem of sterilisation should be considered further", as he put it. After all, the pursuit of psychiatrists should be aimed more and more at "restricting hospitalization to a minimum" (Van der Scheer, 1934, p. 12). Yet, the enthusiasm was not sufficient to bring about an organizational link with the Eugenics Federation, as a letter of refusal by the Society for Mental Health in 1932 shows (*Ons Nageslacht*, 1931, p. 40; 1933, p. 54).

However,Bouman persisted in expressing the eugenic point of view in his society. A year later a new possibility arose when 'the antisocial child' was chosen as topic of a meeting. This time Sanders, a Jewish doctor specialized in the field of medical statistics, and Frets were invited to shed light on the theme from a eugenic point of view. The purpose of Sanders' lecture characterized him as a eugenicist: antisocial behaviour could for the most part be reduced to a hereditary defect. Therefore, measures in terms of education were doomed to fail. On the other hand, the eugenic alternative could be effective: antisocial children should not be given the opportunity to reproduce. The effectiveness of restrictive measures were thought to be increasingly important. "In the present days of crisis and retrenchment", he concluded, "every government is well forced (...) to consider eugenics" (Sanders, 1933, p. 111). This time a spirited discussion, not without venom, followed. Surely Sanders was criticized by medical participants, but these criticisms were moderate compared to the opposition of the jurist Moltzer, director of the School of Social Work in Amsterdam. He called Sanders antisocial because he "had no interest in and no understanding at all of social relationships and forces" (Sanders, 1933, p. 420).

The relation between eugenics and mental welfare continued to be problematic. Eugenicists sulked about the misunderstanding they met from so many psychiatrists as far as human heredity was concerned. They complained about the training of doctors that did not include genetics in the compulsory curriculum. But in spite of all this, eugenics was not completely

neglected. More than once the subject of eugenics and sterilization appeared on the agenda of both Protestant and Catholic societies for mental health. When in the thirties important reference books in the field of general hygiene and medical prevention appeared, all bestowed serious attention upon eugenic problems (Bantjes, 1934; Van Loghem, 1935; Van der Hoeve, 1936). The first *Guide to mental health (Mental hygienics) in the Netherlands*, issued in 1936, mentions eugenics as "prophylaxis of mental defects". For a long time, the Eugenics Federation would be presented in the Guide as relevant in this field.

4 | Eugenics and race hygienics

Dutch eugenicists adopted an ambivalent attitude to their foreign colleagues who could boast of great success in the years preceding World War II. For one thing, they showed a certain envy when American or German eugenicists had a fair wind. For another, they feared the possibility that foreign activity would bring the Dutch moderate pursuit into discredit. For instance, Van Herwerden (1929, p. 430) went as far as to call the American legislation of sterilization "premature". She feared this would not be favourable to the eugenic cause. One can hardly detect any Dutch eugenicist advocating the foreign compulsory sterilization measures in retrospect. Eugenicists were indeed keenly aware of what was proper in Dutch circumstances. Eugenic radicalism was not possible, so they emphatically dissociated themselves from an injunction of marriage as a eugenic measure. Their opponents considered such an injunction as an absurd implication of a medical examination before marriage. Dutch eugenicists preferred to permit intended parents a complete freedom of choice when they learned about the outcome of a legally bound examination. They realized very well that this was necessary to give examination before marriage a chance at all. This prudence did not stem exclusively from pure pragmatism. They objected fundamentally to eugenic radicalism, certainly in the form of brute racism. The national-socialist attempt in Germany to monopolize eugenics in a race-hygienic sense encountered fierce opposition.

From the beginning, the race problem was the center of interest in German eugenics. Race hygienics was a kind of eugenics that measured the quality of the population with racial purity as criterion. Race anthropology was of course not a specific German phenomenon. The biological philosophy that underlied eugenics also tempted speculations in the Netherlands on the race factor as a carrier of mental qualities. But racial purity did not appeal very

much to Dutch eugenicists. The idea that a mixture of races could underlie Golden Ages in history was advocated by Bouman (1916) himself, referring to the Italian Renaissance and to the Golden Age in Flanders and the Netherlands.

Nevertheless, the initial innocent use of the concept of race culture disappeared rapidly in the Netherlands. Van Herwerden (1929, p. 369) preferred to avoid the term "race hygienics" because of its political connotation. In the thirties, German race hygienics was considered as a form of eugenics that was monopolized by party politics. The concentration on the Jewish question was not worth following at all. Eugenics was seen as a science, transcending the political level. Yet the developments in Germany confronted Dutch eugenicists with a dilemma, because the corruption of eugenics with fascist race politics did not prevent many prominent German eugenicists from retaining a good reputation in science. This explains the ambivalent attitude of Dutch eugenicists towards the German population policy. In Germany "great experiments" were indeed being conducted (*Erfelijkheid bij de Mens*, 1936, p. 188), but excesses were warned against. Disgust to some, "unfortunately not rare, unacceptable German remarks" should not "restrain us to admit the true right of eugenics", as formulated by Bijlmer, the later university lecturer in Amsterdam in human genetics (*Erfelijkheid bij de Mens*, 1935, p. 91). Race hygienics and eugenics were not identical, even though the boundaries in Germany seemed to have become blurred. The Dutchmen represented rather simply that Nazi politics misappropriated eugenic science, a representation used as an excuse after the war by German scientists on a large scale (Müller-Hill, 1986). They repeatedly showed their disbelief in the racism and political radicalism of scientific colleagues.

In the thirties, it became more and more clear to Dutch eugenicists that German politics would discredit eugenics as a whole. In *Afkomst en Toekomst,* the 'race issue' was strikingly pushed into the background, more and more, till the term 'race' in the last year (1941) was entirely absent. It is hardly surprising that Dutch eugenicists distanced themselves from this during the World War by being silent. When amongst collaborating doctors a race-hygienistic society came into being, there was hardly a prominent Dutch eugenicist in that crowd (Noordman, 1989, pp. 134-137).

After the war, what many eugenicists already feared before took place: eugenics was discredited, even though the eugenic movement was, according to their adherents, not compromised. "A fierce east wind had done quite a

lot of damage", wrote Bruins (1957, p. 9), a doctor in Deventer. The Eugenics Federation continued to exist for some years, but merely on paper, and it no longer took initiatives. Specific eugenic periodicals like *Afkomst en Toekomst* did not revive. Even so, eugenic problems were not completely superseded. The German aberrations did not take away the legitimacy of concern about physical and mental health, not threatened by hereditary inferiority.

When eugenicists utilized their recovered freedom to propagate eugenics, they attempted to mobilize the war. National-socialism had demonstrated how disastrous the impact of psychopathic leaders and of a degenerate horde really was. The importance of eugenics for mental health also remained under discussion in the post war years. That was first of all shown when the *Maandblad voor Geestelijke Volksgezondheid* (Monthly Journal for Mental Health) began to appear in 1946. It intended to give explicit attention to eugenics. After awhile, a discussion started about heredity and marital choice.

5 | The reorganization committee

The discussions in the ambitious but failing reorganization committee for mental health since 1949 (Van der Grinten, 1987, pp. 168 a.f.) explains the position of eugenics in the Dutch post-war years very well.

In 1945, Drees, then minister of Social Services, invited the National Federation of Mental Health to investigate "which measures must be taken in particular by government in the near future for the advancement of mental health" (Querido, 1959, p. 13). The Federation recommended establishing a state committee that should make far-reaching proposals. One of the six main topics was eugenics. Subcommittee VI, presided by Van der Spek, met seventeen times and indeed completed an "Advice concerning the eugenics question" in 1954.[2] All eugenic measures ever discussed in the Netherlands were reviewed again. None was viewed favourably by the subcommittee.

First of all, the subcommittee considered the hereditary basis of mental illness as indistinct. This applied especially to feeble-mindedness, schizophrenia,

2 The minutes and the final report are in the Algemeen Rijksarchief, Inspectie van het Staatstoezicht op Krankzinnigen en Krankzinnigengestichten, 1842-1961, inv. no. 3075 (minutes) and 3076 (final report).

and manic-depressive psychosis. In some defects, like Huntington's chorea, heredity played a key role, but the subcommittee thought that "this role could hardly be expressed in a legal provision". The same could be said of germ damage by alcohol and other poisons. Forced sterilization was unanimously rejected; the views on voluntary sterilization differed, but a majority dismissed this on ethical and religious grounds. Segregation on eugenic indications was unacceptable in the eyes of the committee because the 'world views' in this matter differed greatly. On the other hand, the removal of the feeble-minded from society for 'opportunist reasons' was always possible. A medical examination before marriage could not be obligatory 'for reason of personal freedom'; propagating a voluntary examination, with the intention to warn intended parents of possible hereditary defects, was advisable. To do more than appeal to each individual's sense of responsibility was considered impossible. The discussion on positive eugenics, that is, on measures to enhance the 'flow of good germs' did not lead to a plea for legal measures. Fiscal legislation was considered ineffective for influencing the extension of the family.

The final report of the eugenics committee was basically a contemplative document, without enthusiasm for any eugenics measures. This was of course also caused by the composition of the committee. It was, as mentioned, presided by Van der Spek, psychiatrist and theologist, who had been interested in this matter for twenty years already, but in the Eugenics Federation an exponent of cautiousness because of his Protestant philosophy of life. That could also be said of the Catholic psychiatrist Carp, a man with great authority in his own circle. In addition to a topman of the Ministry of Justice, a representative of the Orange-Green Cross, and another of the Catholic church, two medical inspectors participated in these consultations: A.C. Palies and P.A.F. van der Spek. A marked view was taken by Brillenburg Wurth, Professor of ethics at the theological college in Kampen. The committee was a bastion of chiefly confessional representatives which characterized Dutch society at that time. In the beginning, there was no specialist at all in human genetics. The members themselves felt this deficiency as a lack and for that reason Polman obtained his doctorate with a thesis on twin research and was assigned to the committee. But Polman was not a man who had won his spurs in the Eugenics Federation. Van der Spek had dropped well-known names of persons in the Federation like Frets and Sanders (in the meantime murdered by the occupier). There had been no reaction at all to that proposal. The members knew nothing about pre-war eugenics.

The subcommittee VI was not a committee of eugenicists. Yet the supposed eugenic problems were taken seriously by most members, perhaps with the exception of Brillenburg Wurth. He was sceptical and even hostile. He indicated this directly at the first available opportunity. The rest believed in the principle that the eugenic view of mental health had a right to exist. The minutes make that clear, more than the final report. According to most members, eugenics was not outdated, but something for the future, when there would likely be more certainty about human genetics. The peculiar despair of civilization can be heard undiminished in the committee. The hypothesis about the unequal contribution of the more talented to the procreation of future generations was for instance adopted, nota bene referring to the investigation of Steinmetz in 1904. The genetic inequality of different classes in society presented the committee with an insoluble problem, because civil equality was an important right. Even the criticism of several eugenics measures was sometimes eugenic by nature. There were no high expectations of eugenic propaganda, because this would probably not influence those who need it most, for example, paupers. Eugenics propaganda could have dysgenetic effects. This practical scepticism is proof of a eugenically-tinted class feeling.

The report of the committee therefore did not criticize the importance of eugenics for mental health. It was quite critical of obligatory measures, that had been in vogue in the US, Germany and, to a lesser extent, in the Scandinavian countries. According to the committee, eugenics should be a question of personal responsibility and as such an all-important matter. In 1953, it became apparent in parliament that politics shared this view. At that time, a social-democratic amendment about an obligatory medical examination before marriage (explicitly meant as a eugenic measure) was rejected by a large majority. "Eugenics was a good cause", stated the anti-revolutionist Gerbrandy, but the socialist proposal would lead to 'state eugenics' and that was of course reprehensible (*Handelingen*, 1953-54, II, p. 2934).

While eugenics legislation in the Netherlands remained taboo, particularly by the great aversion to government intervention and also to the rationalization of reproduction, the dispute on eugenics faded into the background. In 1958, the *Maandblad voor de Geestelijke Volksgezondheid* even devoted a special issue to eugenics. According to the editors, it was appropriate to pay attention to a theme that was so dominant half a century ago, but was now being ignored (1958, p. 118). Wibaut, ophthalmologist in Amsterdam, established justly that "the prices of eugenics are going down"

(1958, p. 156), but in his opinion that did not alter the fact that "the relative importance of hereditary disorders" would increase in the future. For that reason eugenics should demand attention. The issue demonstrated how the wide pretensions of the 'old' eugenics became narrower. It now dealt exclusively with the concrete concern about the prevention of hereditary illness.

In the past this concern had existed as well, but it had been confusingly connected to biological views on a cultural and intellectual degeneration of the masses. But after the war, simultaneous with the disappearance of the Eugenics Federation, the connection of medical, biological, sociological, and population problems disappeared as well. When the Dutch Anthropogenetic Society was founded on 29 October 1949 (Meininger, 1968), many pre-war eugenicists became closely associated with it. From a historical view, this Society was the vital link between eugenics and modern hereditary counseling. It was typically an association of only doctors. They were, like Treub in 1900, explicitly interested in contagious and hereditary diseases, however, currently with accent on the last. That completed the circle.

6 | Epilogue

Eugenics, interpreted as a form of medical prevention, had a rational core, even though it was sometimes presented in a turbid form of biologically-based feelings of superiority. Eugenicists were on good terms with the future, at least in their own view. They considered themselves as progressive and their opponents as conservative guards of an old-fashioned reproduction morality. Eugenicists aimed at a scientific, well-considered parenthood, that could effectively watch over the hereditary quality of future generations. It is not strange that eugenics found international support not only among sexual reformers, but also among (social-democratic) supporters of a systematic government policy on medical and social asspects (Paul, 1984). Eugenicists expressed that prevention of defective descendants was not a matter of parental will. Now that the community was compelled to take responsibility for the welfare of individual citizens, the government should demand some judgment of intended parents.

In the Netherlands eugenics was considered as leftist, as progressive and, in the view of their opponents, as materialistic. The resistance against eugenics was fed by the opinion that regulating reproduction would undermine public morals. The criticism of eugenics as a rule runs parallel

to the criticism of neo-Malthusianism. One of the most important arguments against eugenic sterilization was the fear of unrestrained separation of sexuality and procreation. Especially in the twenties and thirties, this resistance was characterized by moral traditionalism. The eugenics movement could not overcome these inhibitions and mainly for that reason eugenics legislation was obstructed. In this respect, Dutch eugenicists especially had the moderate Scandinavian examples in mind.

Meanwhile, public life in the Netherlands had become secularized, revealing a reproductive morality in which regulation of procreation became totally acceptable. Medical prevention based on genetic knowledge is more appropriate in this time than in the thirties. Increasing public knowledge and awareness more easily allowed the rationalization of reproduction. Moreover, the current ideological climate (Köbben, 1989) seems to accept a biological approach to physical and mental health. Especially in the sixties, this approach had been suspect. But in the eighties, the concept of hereditary mental qualities emerged (Kuilman, 1990). A boom in DNA research from the seventies onwards led to new diagnostic and therapeutic prospects. That stimulated a debate on moral implications. In 1977, a discussion on this took place in the Dutch Discussion Center (Anders, 1977), expressing great concern. This does not mean that health care falls under the spell of eugenics, as Querido detected in the thirties. Then eugenics was embedded in a qualitative population policy, too much based on myth, hardly ever on science. It is conceivable that class and race dimensions of the 'old' eugenics became resurrected in Dutch public opinion. Massive immigration may have stirred eugenic consciousness, comparable to America more than fifty years ago. Reassuring reports on declining birth rates among immigrants show an implied confirmation of that consciousness.

Setting aside social prejudices and biological reductionism in Dutch eugenics, one can see a clear resemblance to modern medical genetics. A recent discourse on problems resulting from reproduction technology mentions some moral dilemmas, all belonging to the eugenic awareness in the pre-war years (Dupuis, 1987). The anthropogenetic lectures delivered at the above-mentioned conference of the Dutch Centre of Mental Care demanded almost exclusive attention to Huntington's chorea, an incurable neurological disorder, predominantly hereditory. In the past, this disorder had been widely used to demonstrate the eugenics problem. Certainly, in the Netherlands, Huntington's chorea had been the most discussed disorder in the whole eugenics literature. This represents a sort of continuity, but also a problem. Huntington's chorea is suitable for demonstrating a moral dilemma, but not

for explaining the complexity of hereditary mental illness. These complications demand caution in the discussion on genetic indications.

Recent debates on reproduction technology show a clear shift to medical prevention. Genetic counseling will certainly influence reproduction in the future (Gevers, 1990). The costs of the welfare state may well lead to a new efficiency. The crucial question is to what extent personal autonomy can be guaranteed.

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POPULATION FORECASTING IN THE NETHERLANDS BETWEEN THE TWO WORLD WARS

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Abstract. During the nineteen-twenties, a trend shift took place in the method of population forecasting which was mainly influenced by debates on the population issue. Starting in the year 1922, the method of geometric population growth gradually became obsolete for forecasting the total population of the Netherlands. The method of logistic population growth never found its way into the Dutch practice of population forecasting. Holwerda, Oly (in 1924), and particularly Wiebols (in 1925) demonstrated that the role of the age/sex structure in future population development is of paramount importance in the process of population forecasting. 't Hooft played an important part in discussions on the methodology of population forecasting, although not always a positive one. However, his merits in the advancement of forecasting methodology have been underestimated.

Keywords: national population; projections; methods; the Netherlands.

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1 | Introduction

The interest shown in the population issue, which was stable in the 1920s and 1930s, was the catalyst for the interest in future developments of the population of the Netherlands, and therefore also for the way in which these could best be calculated. It is, however, essential to understand the societal developments which caused this interest in the first place and subsequently sustained it, and to have some insight into the position and background of those who made the most widely-discussed forecasts, in order to gain a proper understanding of the developments in population forecasting in the Netherlands. The scientific origins of those who contributed to the advancement of population forecasting, regardless of whether they were called statisticians or demographers, were even then extremely diverse. The first organised contact that they had with each other was primarily within the framework of the Association for Political Economy and Statistics (VSS: *Vereniging voor de Staathuishoudkunde en de Statistiek*) which was founded in 1857. An organised professional group of demographers or population forecasters did not exist, let alone specialised professional training. It was not until the end of the 1920s that scientists working on the different aspects of the quantitative and qualitative development of the population began to organise themselves into the Netherlands Committee of the International Union for the Scientific Investigation of Population Problems (*'Nederlands Comité der Internationale Vereniging voor de Wetenschappelijke Studie van het Bevolkingsvraagstuk'*) which was founded in 1928 (Van den Brekel, 1978).

This article focuses on the advancements in forecasting methodology at the national level. They are placed within the context in which they were first established (Section 2). Section 3 sketches the main theme of these developments. Subsequently, in Section 4, attention is paid to a number of secondary themes, followed by a discussion on their further development in Section 5. The final Section consists of a number of concluding remarks (Section 6).

2 | The context

2.1. The population issue

The incentive to develop population forecasting in the interbellum period was not so much the result of a necessity for planning and policy, but rather of the substantial social interest in the population issue in the Netherlands, even

though this issue had many facets and took many forms. In contrast to other West European countries, this issue appeared quite late on the social and scientific agenda in the Netherlands. Nevertheless, as soon as it *was* introduced at the beginning of the 1920s, it immediately gained much attention and continued to do so for the next few years. The stagnation of the economy which quickly followed the short spurt of growth directly after the end of the first world war, the subsequent unemployment, and the accompanying poverty caused economists to fear that the law of diminishing returns would set limits on progress. 'No century would experience a relative increase in social income of a size, expressed in consumer goods, which could be equal to that which was achieved in the last one hundred years' prophesied Verrijn Stuart, a professor who was one of the most influential economists and statisticians of his time in the Netherlands. For this reason, he thought it best that the continuing growth of the Dutch population should be stopped (Verrijn Stuart, 1919, p. 81).

Those who shared his views discovered that the New Malthusian Society (NMB: *Nieuw-Malthusiaanse Bond*) which was founded in 1881 was on their side. Where marriage and the family were concerned, the NMB aspired to achieve a satisfactory balance between the means of existence and the size of the family in order to reduce poverty (Van Praag, 1977). The methods which the New Malthusian Society propagated, such as intervention in fertility with the aid of artificial means so that the number of births could be controlled, were considered a great evil by many. As far as these people were concerned, the real core of the population issue lay in the propaganda of New Malthusianism and not so much in a population surplus. This opinion did not make the discussions on 'the population issue' much more clear (Van Praag, 1977).
The NMB met with fierce opposition from its very beginning. Its opponents came principally from the circles of the confessional political parties of the day and from the religious groups which supported them. The leaders of the social democrats were more inclined to cautiously support pro-natal policies or to take a neutral position rather than support anti-natal policies; those in socialist circles who didn't already disapprove of the NMB had in any case distinct reservations. The supporters of the NMB could generally be found in liberal and liberal democratic circles. Individual freedom and limitation of state influence were of paramount importance to them (Van Praag, 1977). In the first few years of its existence, the NMB's propaganda was virtually limited to intellectuals. It was not until 1900 that the new Malthusians started to concentrate on the mass population. That the discussion on the issue of overpopulation began so late in comparison to a country such as England

(Soloway, 1990), overpopulation being the most accepted interpretation of the population issue, has to do with the likewise relatively late commencement of industrialisation and urbanisation and, as a result of this, the relatively large influence of religion on public opinion (Van Praag, 1977). Later, in the 1930s, the population issue became once more an important issue, but this time in a totally different form. Attention was now focused not on the increasing population but on the declining birth rate. The continuing decrease in this rate led to concern for the survival of the population, but also especially to the concern that the quality of the population be maintained. This fear that the quality of the population was in danger was based on the observation that it was those who were considered to belong to the social elite who were reducing their number of offspring whilst the lower social classes were not (Noordman, 1989).

2.2. In the footsteps of Malthus

Up until the beginning of the 1920s, little had changed in the way in which the size of the future population was calculated, since Thomas Malthus advanced a thesis in his Essay on the Principle of Population that increases in human populations were based on *geometrical* growth, meaning based on a growth rate which did not change with time. There are, in fact, only two known exceptions. The *first* exception, developed by the Belgian mathematician Francois Pierre Verhulst (in approximately 1840) contained a mathematical formula for another 'law' of population growth, namely that of logistic growth. According to this law, the (relative) growth rate is dependent on the size of the total population. Furthermore, every population tends towards a limit population, whereby its development runs in a reclining S-shaped curve (Dupâquier, 1985, p. 380). Independent of Verhulst, this 'law' was rediscovered by the Americans Pearl and Reed in about 1920. Through the work of Pearl this method also became known in the Netherlands, albeit that the logistic growth method here, in as far as this can be verified, did not play a meaningful role. In 1929, 't Hooft reproduced the S-shaped curve in a figure, with reference to Pearl. It remains unclear, however, whether his curve was based on calculations ('t Hooft, 1929, p. 40 et seq.). In 1933, Linn made a calculation for the Dutch population with the aid of the logistic method, at the request of Lewandowski and Van Dranen for their book on the history of civilization and the moral history of the Netherlands.[1] Linn arrived at a total population size of 12.35 million

[1] With thanks to Dr. Frans van Poppel (NIDI), who drew my attention to the existence of this book.

in 1989 and a limit population of 14.4 million which would be approached at the end of the 21st century (Lewandowski and Van Dranen, 1933, p. 241 et seq.).

The *second* exception was formed by the population forecast by the English economist Cannan. This forecast made an impression on his international colleagues, but there is no indication that it exercised any influence in the Netherlands. Cannan had already shown in 1895 that one must look at the development of the age structure of a population and its influence on the number of births if one wishes to say something meaningful about the future growth of the population and its size (Cannan, 1895).

In an overview of the literature on the population issue up to the end of the 1920s, the American economist Wolfe was even of the opinion that there was talk of a rediscovery of the geometric method. He saw this rediscovery as *the* notable achievement of the literature dating from after the First World War (Wolfe, 1928, pp. 537-538). However, Wolfe ignored the fact that this method had already been known as the 'standard' method in professional circles at the end of the last century.[2]

The conviction that something like a 'law of population' existed to which a population was subject to did not mean that this was rigidly adhered to by demographers. Since censuses were held approximately every ten years from 1829 onwards, this meant that the (average annual) population growth between two successive counts could be calculated. It was therefore known that the average annual growth rate in consecutive intercensus periods was not constant but was subject to change. Forecasts were made either on the basis of a constant total growth rate —per year or per ten-year period— or on the basis of a constant natural growth rate, at least when it was thought that the influence of migration could be disregarded. Examples of early twentieth century forecasts of the geometric type in the Netherlands are those of Rückert on behalf of the General Development Plan (Algemeen Uitbreidingsplan) for Tilburg (Rückert, 1917) and those of Rooy (1920; 1921) for calculating the postwar housing shortage. In both examples though, the future growth rate had only been determined after the influence of the possible future development of births and deaths on the growth rate had been balanced out.

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[2] This emerges for example from a letter dated 18-4-1898 from C.L. Wilbur, Chief of the Division of Vital Statistics, Lansing Michigan to Edwin Cannan (Edwin Cannan, Private Correspondence 1889-1899, British Library of Political and Economic Science).

2.3. A trend shift

In the early 1920s, the results of one specific calculation of the geometric type made a great impression. This was even the indirect cause of the origins of a trend shift in the methodology of total population forecasting that was commonly utilised. That the results made a big impression was not so much due to the quality of the method of calculation, but more to the person who produced them and the moment at which they were published. It concerns calculations made by Professor Verrijn Stuart of the University of Utrecht (1865-1948), the results of which were published in 1919 and 1921. Verrijn Stuart was an authoritative economist and statistician: he has been called 'the first modern statistician of the Netherlands' (De Vries, 1948). He was the first director (1899-1906) of the Netherlands Central Bureau of Statistics (CBS) which was founded in 1899. Moreover, till 1911 he was the secretary-general of the International Statistical Institute (ISI) in The Hague, an institute in which the international world of professional statisticians was organised. Until the late 1930s, he was chief editor of *De Economist*, the oldest economic journal in the Netherlands. During the interbellum period, *De Economist* was a publication of great importance to the development of population forecasting, as attested to by the space devoted to discussions on forecasting methodology. In 1889, as a twenty-four year old, Verrijn Stuart became the secretary-treasurer and, from then on, the driving force behind the VSS, which was founded in 1857. He retained this position until 1930. He moved in international circles in the company of the last survivors of the group of founders of modern demography and statistics in the nineteenth century. He met these people during international congresses on statistics and in the preparatory study groups.[3]

The calculations of Verrijn Stuart amount to the following: if the future growth rate is maintained at the average level of the period 1909-1920, which was 1.42% per year, the population would double in 49.16 years. In one hundred years' time the population of the Netherlands would be 27.5 million; in two hundred years time the population would be 110 million. These results became 'hot items' in 1922 because they were used in the debate on the population issue (that is, on the causes, consequences, and combatting of the sharp population growth in the Netherlands). In that year the population issue became the central theme for the annual meeting of the Association for

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[3] The following people were still alive: the Frenchman Jacques Bertillon (1851-1922), the Hungarian Statistician Joseph Körösy (1844-1906), the Norwegian Anders Nicolas Kiaer (1838-1919), the Germans Richard Böckh (1824-1907) and Wilhelm Lexis (1837-1914), and the Italian Luigi Bodio (1840-1920) (Dupâquier, 1985).

Political Economy and Statistics (VSS) and —as a reaction to this— of the Roman Catholic Dutch-Flemish Congress on the population 'problem' that was held in Breda in 1923. The annual meeting of the VSS was organised by Verrijn Stuart himself in his capacity as secretary-treasurer, and he may also have been, to a certain extent, instrumental in setting the thematic tone. It was he who invited the authors of the discussion reports for the annual meeting, the later comptroller and auditor-general Ries, and the ethnologist/physician Kohlbrugge, and it was he who, if not instructed them on the subject, content, and composition of their contributions, then at the very least made suggestions (Kohlbrugge, 1922).

Verrijn Stuart was the first person in the Netherlands who publicly put forward for discussion a number of the economic problems that are connected with a rapidly growing population (Van Praag, 1977, p. 253). He was convinced that if the birth rate maintained its high level of the last few years, an increased death rate and 'proletarianizing' of the population would be inevitable. Verrijn Stuart was, and remained so in later years, an avid advocate of curbing fertility.[4] By taking this position, he opened what Van Praag later called 'the great Malthusian debate' in the Netherlands. Invited to the meeting by Verrijn Stuart, Ries and Kohlbrugge dealt with the following question in their reports for the annual meeting: what kind of influence would the economic developments of the last few years have on the population figure, especially in the Netherlands? Kohlbrugge was the one who saw the population issue as only a short-term problem. He attributed the unemployment and hunger in Europe of those days to the war and the chaos that it had produced. There was certainly no reason for him to become alarmed about overpopulation. He therefore did not consider it necessary to combat population growth, but did consider it necessary to combat neo-Malthusianism. He saw this as a great evil, and that, if it should proliferate, could result in the depopulation of the Netherlands. In his report, Kohlbrugge took such an over-simplified position that, during and after the meeting, he received a lot of comments from others, including Verrijn Stuart himself and the other rapporteur, Ries. Kohlbrugge later wrote that his one-sided attitude against neo-Malthusianism stemmed from a misunderstanding, as he had understood that this is why he had been invited by Verrijn Stuart (Kohlbrugge, 1922). However, this should be taken with a grain of salt.

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[4] In 1926 he put pressure on the editorial secretary of *De Economist* to ensure that in a text supplied by 't Hooft, the emphasis would be placed on the importance of a reduction in the birth rate for combatting overpopulation and therefore eliminating its terrible consequences (letter to G.M. Verrijn Stuart, Archives of *De Economist*, file number 1926/28 under 't Hooft).

Extreme attitudes against neo-Malthusianism appealed to Kohlbrugge. The attitude is still apparent in his textbook on practical sociology, written years later in 1929. An unrestricted influence of neo-Malthusianism has adverse consequences of a physical and ethical nature for the population, but at the same time results in economic debilitation of the population. If we can eliminate this degeneration from the population, then the future of Europe belongs to us. Should it turn out differently, should our children and grandchildren not be able to eke out an existence, then '... I would prefer famine, epidemics and war to the unrestrained propaganda of the N.M. that is causing our people to degenerate' (Kohlbrugge, 1929, p. 68).
The report of Ries was far more balanced and was based on some understanding of demographic developments. Yet Ries was also apprehensive of possible underpopulation in the long term, if the decline in the birth rate continued (*Verslag* ..., 1922; Van Praag, 1976).

2.4. Consequences for the method
The publication of the reports of Ries and Kohlbrugge in preparation of the annual meeting cast its own shadows. With a good sense of timing, Methorst (1868-1955), who was Verrijn Stuart's successor at the CBS (from 1906-1939) and at the ISI (from 1911-1946), published the results of the calculations that he had made as a reaction to those of Verrijn Stuart shortly before the annual meeting. In fact, Methorst produced the first detailed components forecast in the Netherlands, based on separate extrapolations of both components of the rate of (natural) population growth, although he only verbally attempted to discount changes in the age structure. He demonstrated that it was improbable that the natural growth rate would remain unchanged and that it was more likely that a stable (stationary) situation would arise. After all, the death rate had already dropped to a minimum, whilst the birth rate was still showing a tendency to decrease. In the long term this would result in a change in the age structure in favour of the oldest age groups, and therefore this would lead to an increase in the crude death rate. According to him, the ultimate total population which would be reached in 2009 would not exceed 15.5 million (Methorst, 1922).
The results of the calculations of both Verrijn Stuart and Methorst were treated as actual forecasts (*Verslag* ..., 1922, p. 16 et seq.). It did not matter that Verrijn Stuart had never meant his calculations to be interpreted as such, and that he only wanted to demonstrate that it was impossible for the growth rate of the population to remain so high over such a long period of time (*Verslag* ..., 1922, p. 17; Verrijn Stuart, 1922; idem, 1925).
It is surprising that even Methorst approached the calculations of Verrijn Stuart as if they constituted a true forecast. This could be because Methorst

and Verrijn Stuart were opponents in the great neo-Malthusian debate. In those days Methorst held a distinct 'populationistic' and anti-neo-Malthusian point of view (Methorst, 1922, p. 854; Van Praag, 1976, pp. 23-24). All things considered, Verrijn Stuart and Methorst had the same goal in mind: to demonstrate that, in the long run, an end would (have to) come to population growth. Seen in that light, both approaches were effective: Verrijn Stuart chose an 'indirect' approach, Methorst demonstrated that a decrease in growth was actually on the horizon. However, methodically speaking, the contribution of Verrijn Stuart in particular was somewhat scant. He let the chance slip through his fingers of conveying a better understanding of population dynamic processes to his public. According to his manual of 1910, 'Introduction to the study of Statistics', he was well informed on what took place nationally and internationally in the population statistics field and on the development of demographic-analytical instruments. It is remarkable that neither Verrijn Stuart nor Methorst indicated the relative value of working with crude figures, whether this concerned the crude growth rate (Verrijn Stuart) or the crude death rate and crude birth rate (Methorst). As early as 1892, the Hungarian statistician Körösy had already enlarged the demographic-analytical tool-kit with a method for making crude rates comparable, by standardization of the age structure (Westergaard, 1932, p. 248). A little earlier in 1879, Richard Böckh, Director of the Office of Statistics of the city of Berlin, had laid the foundations for calculating rates that were less dependent on the influence of the age structure of the population, the total fertility rate, and the net replacement ratio (Verrijn Stuart, 1910, Introduction). Time and again it emerges that Verrijn Stuart was not really interested in an estimate of the actual future development of the population.[5] He only wanted to warn people that the population growth could not continue any longer in the way it had done before (see for example also Verrijn Stuart, 1925, pp. 448-449). Therefore, inciting an actual improvement of forecasting methodology had to come from a totally different source.

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[5] For example, later in 1924, he saw no reason, on the basis of new methods of calculation (from Methorst) and perceptions (expressed by Holwerda amongst others), for making essential changes to the passage on 'the increase in the population' in the new edition of his manual which was first published in 1920 called 'The Foundations of Public Housing' (*De grondslagen der volkshuisvesting*). In this manual he contended the same as in his articles of 1919 and 1922 (Verrijn Stuart, 1920, p. 277 et seq.; 1924, p. 293 et seq.).

2.5. The necessity of a better perception

At the annual meeting of the VSS, it had already been pointed out by various parties that a better understanding of the factors that influenced the development of the population was much needed. In order to achieve this, what was needed first and foremost was better statistics, especially statistics which would make it possible to make an in-depth study of the 'birth phenomenon', as stated by Van Zanten, director of the Office of Statistics of the municipality of Amsterdam from 1917-1936 (*Verslag* ..., 1922, p. 31). More fundamental suggestions for improving forecasting methodology itself came from Holwerda (1887-1944), a professor of statistics and actuarial mathematics at the university in Rotterdam. According to Holwerda, the calculations of Methorst had already shown to a certain extent what was possible if statistical data were used in a correct and useful way. Holwerda did not believe it possible to make an objective study of the population issue without adequate statistics. In order to discover why the birth rate was decreasing, one should know the following. In the words of the *report* of the annual meeting: 'If there are 10,000 births, how many offspring will they produce in the long run? The following questions should then be asked: how many will reach marriageable age? This is therefore a question of mortality; how many will marry from the number that do reach a marriageable age; what is the duration of the marriage, and how many children will be produced from these marriages with variable duration. This is the problem of marital fertility which, as we know, depends upon such factors as the length of the marriage, the age at which people marry, and on the difference in ages between the husband and wife. This leads to a whole series of sets of probabilities ('probability systems'), and if we knew exactly what they all were, we would at least know what the situation of today would be'. One should first establish what the present-day sets of probabilities look like. Only then would it be worthwhile to discuss the possible future changes. For the time being, there was no choice but to study the population issue '... with a deficiency of statistical information' (*Verslag* ..., 1922, pp. 48-50).
In this way Holwerda showed the direction, for the highest geographical level of scale at any rate, that would eventually lead to a definite break in the prevailing practice of making future calculations.

3 | A rising line

One should not be surprised that actuarial mathematics incited the break in forecasting methods. People in the life insurance branch were used to working with various 'probability systems'. The concepts of age-specific

mortality probability, life table population, and zero population growth were familiar concepts to them. In the past, Dutch citizens such as the Grand Pensionary of Holland Johan de Witt (1625-1672), Amsterdam's mayor Johan Hudde (1628-1704), the first professional actuary Willem Kersseboom (1691-1771), and the mathematician and astronomer Nicolaas Struyck (1687-1769) had all made essential contributions to this development. Insurance companies have existed in the Netherlands since the end of the eighteenth century (Stamhuis, 1989). Even though they had a wealth of experience and statistical information available, if a good insight into the course of mortality of the Dutch population was needed, then one had to consult the officially published data on the whole Dutch population. In 1923, a survey of all the life tables derived from the censuses held in the Netherlands was published in the Insurance Archives (Verzekeringsarchief) (Van Haaften, 1923).[6]

Holwerda was also responsible for the fact that people looked further than his suggestions alone. He contributed to a further development of forecasting methodology by putting Wiebols, a doctoral student, to work on this 'economical statistical' subject. Wiebols had graduated from Rotterdam University (then the *Handelshogeschool*) in commercial science. Wiebols' thesis on the future size of the population of the Netherlands was published in 1925.

However, a year earlier, a colleague of Holwerda, the actuarial mathematician Oly, had already taken a step in the same direction. One can see a rising line that runs from Methorst via Holwerda and Oly to Wiebols. It is not known however, whether Wiebols was aware of the work of Oly. There are no references to his forecasts in his thesis. Oly was the first to use age-specific death rates: those of the year 1920 differentiated according to age and sex. On the presumption that the number of 0-year olds would remain constant at the level of that of 31 December 1920, he calculated that the total population in 2020 would amount to 11 million people (Oly, 1924; 1930). Like Methorst, Oly presumed that the decrease in death rates had already reached its peak. Oly linked together the future number of births and the future number of women in the fertile age bracket more specifically than Methorst had done two years before, albeit that Oly still did this only verbally. Despite decreasing fertility, the absolute number of births could, for the time being, continue to increase as a result of the 'remarkable youth'

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6 For information regarding the development of the instruments, see for example Westergaard (1932); Dupâquier (1985); Hecht (1980; 1990). Christiaan Huygens could also have made an important contribution to the development of the life table, but the exchange of letters with his brother, in which his ideas and calculations were expressed, was only first published in 1895 (Dupâquier, 1985; Caselli and Lombardo, 1990).

of the population. Oly reasoned that because of the low average age of the population, the group of women in the fertile age bracket would increase quite considerably. As long as this group of 'fertile women' had not yet reached its maximum size, the absolute birth rate could continue to increase, despite the decreasing fertility rate (Oly, 1924, p. 157).
A year after Oly, Wiebols (1895-1959) produced his thesis on 'The future size of the population of the Netherlands'. Wiebols considered the greatest merit of Methorst to be that he had focused attention on the 'disturbing' influence of the age structure on the crude birth and death rate.
However, he was of the opinion that Methorst had not come to the right conclusion, that is to say that because of this fact, crude birth and death rates were unsuitable instruments for making judgements on the future course of the population.

Neglecting the migration factor and limiting himself to the females of the population only, he considered it crucial to use the age structure factor, and therefore future age-specific fertility rates and future age-specific death rates, in order to calculate the future course of the population (Wiebols, 1925, p. 31 et seq.).[7] Whereas Methorst and Oly had found it sufficient to only verbally emphasize the importance of the age structure, it had become the basis of Wiebols' calculations. Wiebols built on the views of Böckh regarding the replacement level of a population, and on the views of his student Rahts regarding the necessity of using age-specific fertility rates (Wiebols, 1925, pp. 38-40).
Wiebols presumed that the decrease in the general fertility rate in past decades, down to the level of 57.59% in the period 1909-1920, would continue as an asymptotical curve until, in the year 2000, the Netherlands would reach the level of France in the period 1910-1911 (36.59%). In those days this was the lowest known level in Europe (Wiebols, 1925, pp. 59-60). He made a similar assumption for the death rate. The existing death rates would develop asymptotically until, in the year 2000, mortality would be the same as in a life table, which would result if the ages of the 5th civil servant's table (1891-1914) was increased by two. The death rate within the civil service was assumed to be the lowest that was observed within the Netherlands (Wiebols, 1925, p. 73).

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[7] Wiebols used a ten-yearly (general) fertility rate: the number of children born in a decade divided by the number of women between the ages of 15 and 49 who were present at the beginning of the decade (Wiebols, 1925, p. 57).

The forecast of Wiebols was the best founded and qua methodology the most modern of his time, and signified a great step forward in the progress of forecasting methodology in the Netherlands. The significance of this work was immediately recognised, as appears from reviews of his thesis (Verrijn Stuart, 1925; Van Zanten, 1926) and from the following which his method gained. Henceforth, in the period between the wars, no one who wanted to produce a forecast and who wanted to be taken seriously could permit himself to ignore Wiebols' method (see for example Bakker Schut, 1933; Angenot, 1934; Van Waerden, 1937). Wiebols' method also appeared workable for municipalities, as was demonstrated by Van Lohuizen and Delfgaauw. They were the producers of the population forecast for Amsterdam on which the famous General Extension Plan of Amsterdam of 1935 (AUP: *Algemeen Uitbreidingsplan*) was based (*Grondslagen* ..., 1932).

4 | A break in the rising line? The contributions of 't Hooft

4.1. The metaphor of the conveyor belt

In the interbellum period, there was, however, only one person who had as much influence as Wiebols had on the progress of population forecasting methodology of that time and this was F.W. 't Hooft (1896-1941). He not only supplied an alternative for Wiebols' method, but during a succession of years he left such a mark on the discussions on how the future size of the population of the Netherlands could best be calculated, that thanks to him it is possible to gain a clear picture of the state of affairs regarding the knowledge of the analytical-demographical tool-kit at that time and its use in population forecasting. He can be seen as an important catalyst in the distribution of the existing knowledge and views in this field, were it not for the fact that at the same time he caused considerable confusion by obstinately holding to some incorrect views.

The nature and meaning of his work can best be understood if one is well aware of the principal concept behind all of his works: a concept which was based on a very appealing metaphor. As a mechanical engineer, he was interested in social issues and particularly in the population issue. As far as the population issue was concerned, from an early stage he believed that, through calculations, better and more satisfactory results could be achieved than those that he had seen up until then. In 1913 his ideas began to take shape when he was present at the testing of a conveyor belt. The conveyor belt became a metaphor to him of what happens in life between birth and death. He himself talked of his 'conveyor belt theory' ('t Hooft, 1929, V).

The metaphor amounts to the following: population dynamics can be seen as a process that is similar to that which occurs on a conveyor belt. Granules (births) are thrown onto one end of the belt and some of these granules disappear during the transport of the belt (deaths at a young age) and some of them are thrown off at the end of the conveyor belt. One could replace this conveyor belt with a conveyor belt with a length equal to that of the average life span of the deceased: these granules are thrown onto one end of the belt and at the end of the conveyor belt they all simultaneously fall off. The size of this substitute population is equal to the product of the number of births and the average age at the time of death (this should not be confused with the average life expectancy or the average age of the population!). If one extends the conveyor belt, that is, if the average life span of the deceased increases, then the belt can accommodate more granules at the same time as a result of the extension. Thus the population increases, but purely as a result of the process of the lengthening span of life. In time, however, the balance will be restored again and the size of the population, being once more the result of the product of the (new) average life span of the deceased and the number of births, will not increase any more.

The fear of overpopulation in the years after 1918 and the debate on the population issue that resulted were sufficient reason for 't Hooft to work out his theory further. He was not impressed with the quality of the existing Dutch literature on this subject, including the estimates by Methorst (1922), Oly (1924), and Wiebols (1925). His criticism basically amounted to his contention that none of these authors had realised that it was only the continuously increasing span of life which should be mentioned as the cause of the abnormal increase in the population. He believed that the sharp increase of the population was of a temporary nature: it was just a matter of waiting for the moment that an end would come to the process of the ever-lengthening span of life ('t Hooft, 1926, p. 704).[8]

't Hooft proposed two different forecasting methods. The first ('t Hooft I, from 1926) was intended as an attempt to improve on the Methorst method

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[8] For his works, see 't Hooft (1926); (1927a); (1927b); (1928); (1931); (1936). Polemics took place with Holwerda, Wiebols, Ubbink, and Derksen, stemming respectively from Holwerda (1926) [see 't Hooft (1927a)] and Holwerda (1927) [with Postscript by 't Hooft (pp. 153-155)]; Wiebols (1927) [see Postscript by 't Hooft (pp. 318-319)] and Ubbink (1937) [see 't Hooft (1937)]. Finally a critical contribution in *De Economist* from Derksen (1937) was reacted on with 't Hooft (1937). 't Hooft's book of 1929 included a compilation of his works up to that point. Book reviews appeared in *De Economist* (Van Zanten, 1930), in *Het Verzekerings-Archief* (Oly, 1930) and in *De Socialistische Gids* (Spier, 1930).

of 1922, at least as far as the mortality component was concerned; he expressed little concern for the birth rate.[9]

The method entailed an attempt to correct the future gross mortality rate for the presumed increased span of life. He was convinced, as were the majority of his predecessors, that an end would and must come to the population growth in the foreseeable future. At that future moment, the birth rate would be equal to the death rate. It was therefore a matter of determining just when the process of prolonging the span of life would reach its zenith, and what the level of the (rectified) crude mortality rate would be then. In terms of the metaphor of the conveyor belt, it was a matter of ascertaining the moment in time at which the belt no longer had to be lengthened.

The significance of the declining death rate during the previous decades for the population growth should not be underestimated. 't Hooft's efforts to correct the future crude mortality rate was therefore in itself not a bad idea, for it consists of a population structure component and a mortality component. The real problem, however, and here we expose the core of the controversies which 't Hooft opened up, was that his theories corrected for the increasing span of life and not for the changing population structure. Moreover, he understood the increasing span of life not as the development of life expectancy at birth but as the development of the average age *of the deceased*, calculated annually from the death statistics and extrapolated for the projection calculations. Besides that, he caused misunderstandings by designating his substitute population as 'stationary'. Unintentionally, he created the impression that he was referring to the stationary population of demographic theory. It took until 1937 before he admitted that he should have chosen other terminology ('t Hooft, 1937, p. 373). Even though he had not based his theory on the stationary population of demographic theory, his method and hypotheses were *stricto sensu* only valid in stationary situations.[10] However, the major weakness of his method was his disregard of fertility as an independent factor in the processs of population dynamics and in particular its influence on the age structure with all its inevitable consequences for future numbers of births and deaths, and with that, for the gross rates.

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[9] According to his theory, the increase in the span of life was the determining factor. Furthermore, he thought that there had already been too much literature on the birth rate (letter dated 16 July 1926; Archives of *De Economist*, file 1926-1927).

[10] That was in itself no disaster, because if there were only changing mortality conditions, *semi-stable or quasi-stable* situations would have come about whereby part of 't Hooft's theory would still remain standing (Pressat, 1983, p. 258 et seq.).

4.2. The 't Hooft method II

Whereas his first contribution to the improvement of forecasting methodology cannot possibly be considered as an improvement, it was a different matter with the method 't Hooft introduced a year later, in 1927. Almost immediately it was welcomed positively by most and was generally ranked with the Wiebols method (e.g. Van Zanten, 1930). The method was based on the reconstruction of the development of data for ten-year birth cohorts (not differentiated by sex), from the censuses held from 1830 to 1920 in ten-year intervals.

Starting with the birth cohort 1820-1829, he calculated how many out of a hundred 0-9 year olds were still present after 10, 20, 30 years (that is, alive and still in the Netherlands). In this way, each ten-year cohort was analysed to determine how the decrement by death took place. Just as Methorst, Oly, and Wiebols before him, 't Hooft felt that foreign migration was negligible. On the basis of the development of the numbers of the successive birth cohorts in the observation period 1830-1920, 't Hooft made a forecast of the future development of each birth cohort and age class (of ten years) by smoothly extrapolating ('flowing smoothly and without jumps') the declining cohort lines and rising 'similar age class' lines he found ('t Hooft, 1927b, p. 668). With respect to the decrease in the figures of the coming birth cohorts, he relied on extrapolation of calculations of observed past ratios of the numbers present in the age class 0-9 years in the successive censuses and the number of live births in the ten-year interval immediately previous to the present one. A separate forecast was made for the number of live births in the decades to come. As we were able to see in the discussion of 't Hooft Method I, he assumed that there would be a continuing drop in future births, at the current rate to start with, which would then decelerate until a balance between births and deaths was achieved.

't Hooft was opposed to those who believed they could explain diminished fertility by progress in civilisation, by an increasing hedonism in the population or by neo-Malthusian propanganda. According to 't Hooft, there is but a single major cause and that is the economic conditions, accompanied by the standard of living to which one was accustomed: no one wishes a lower rung on the social ladder for himself or his children. Marriages take place only when one is fairly certain that the standard of living to which one has become accustomed can be maintained. There is also a close relation with the number of offspring. Whether this is a result of sexual abstinence or some way of preventing conception did not matter to him, at least in this context. Attempts at the latter were, according to him, as old as mankind. 't Hooft was decidedly not alone in these interpretations (e.g. Bierens de Haan, 1924). The rising popularity of neo-Malthusianism was, in his opinion, not a reason

for the declining birth rate, but merely a sign of the times. It was proof that the economic situation necessitated public information on this subject ('t Hooft, 1927b, p. 671). If it is indeed the case that economic conditions form the basis for the number of future births, then a forecast involving a continuing decline in the number of births was in his opinion completely justified, as the prewar prosperity would never return ('t Hooft, 1927b, p. 671; 1929, p. 48).
't Hooft performed his calculations without differentiating according to sex. That is quite understandable, since he, like his predecessors, was especially interested in the development of the dimensions of the entire population. The breakdown by age category and birth cohorts was only necessary for the calculation of that total population. Application of his calculation method to both sexes individually, which was also possible, would have resulted in 'hard' data on the development of the total number of women of childbearing age in the forecast period to which he could have related the future number of births. As he addressed himself exclusively to the role of mortality, 't Hooft was not receptive to this: the foundation of his theory was exactly the assumption that future population development would tend towards a situation in which the natural growth rate was zero, that is, towards a situation in which the number of births was equal to the number of deaths.
One runs into the first part of this supposition in the works of other authors on the subject of the population issue. Whereas the stationary final population was the theoretical model which lay behind the work of people like Oly and Wiebols, 't Hooft's stationary population displays a similarity to what was referred to in the seventies as 'forced zero population growth'.[11]

4.3. The stature of the 't Hooft method II

The 't Hooft Method II of 1927 offered an insightful, useful, and simple alternative to the more complicated Wiebols method of 1925. The latter was more advanced, however, because the (changing) age structure formed the explicit basis of the calculations. Future births were linked to the changing age structure by the general fertility rate. Moreover, it seemed possible, as it turned out, that migration could be included in the calculations with a minimum of difficulty. The former would have been possible with a sex-differentiated 't Hooft method II, but the latter was not: the proportion of emigration, the immigration figure, and the survival proportion were bundled into a single 'survival in the Netherlands' composite rate, and could therefore not be distinguished from each other.

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[11] For 'zero population growth', see e.g. De Gans (1974).

Although 't Hooft wanted to distance himself from 'statisticians' like Oly and Wiebols, who in his eyes were only equipped to 'extrapolate current situations into the future', he actually did the very same. He did take pride in the fact that he, in contrast to the 'experts', relied on the practical situation: he used data gleaned directly from the censuses. In fact, he too worked with the probabilities which he himself criticised, even if they weren't pure survival probabilities. This does not detract from the fact that 't Hooft introduced a method that was new and functional for the Netherlands at a time when population forecasting was developing swiftly, and insight into the background of processes of population change was not yet widespread. He was able to offer a clear insight into the changes in the totals of birth generations through the years, particularly by way of the graphs with which he illustrated his method. This clarity carried through to the effect on the age structure of the population and the various contributions of consecutive birth generations to the changing age structure.
't Hooft's 'cohort survival in the Netherlands' methodology comes close to the generation life table methodology. This demonstrated that he was far ahead of his time, something which was also recognised by some of his contemporaries. Van Zanten put forward that the Wiebols method was more refined than that of 't Hooft, but that mortality probabilities of a then current population group was used for the distant future (a period life table of civil servants). In contrast, the purport of the 't Hooft method was that it was necessary to work with generation mortality tables (Van Zanten, 1930, pp. 319-320; see also CBS, 1975, p. 10). In this, 't Hooft put into practice that which Van Pesch, who constructed a large number of Dutch life tables, had already called attention to many years before (Van Pesch, 1912; 't Hooft, 1929, p. 96). In doing so, 't Hooft kept touching on a weak spot in the approaches of Oly and Wiebols: their use of period life tables.
An attendant result of his activities in the field of generation mortality was that 't Hooft, as far as is known, was the first to introduce the 'baby boom' concept (which he called the 'tidal wave'). No one else described the consequences of the great number of births in the years following World War I in its effects on the population over time as expressively, nor so closely tied the changes in the need for amenities and services to changes in the age structure which themselves were a consequence of the 'advancing' effect of consecutive birth cohorts ('t Hooft, 1927b, p. 676).

4.4. Maligned and praised

The work of 't Hooft has been both maligned and praised. Holwerda (1935) spoke of a regrettable decline in quality since Oly and especially since Wiebols. De Jong (1946, p. 164) was of the opinion that 't Hooft's work

could be disregarded in a discussion of the reproduction intensity of a population because it was "if not worthless, then merely partially correct and in any case impractical and ineffective". Van Praag (1976) spoke of an interruption in the rising progressive line of the development of forecasting methodology. This absolute dismissal of his contribution to the progress and development of forecasting techniques cannot be completely explained by the rejection of the 't Hooft method I. In the following years, 't Hooft managed to be attacked by everyone who considered himself an expert in the field of statistics, forecasting, and demographic theory. From his first article in 1926 on, reactions were exceedingly negative. The editing board of the journal in which this article first appeared, *De Economist*, had counted on polemic reactions and even considered them a plus because of the importance of the issue.[12]

It is, incidentally, not very clear why 't Hooft continued to vehemently defend his methods, particulary the first, in the face of such consistently sound criticism. It appears from his correspondence with the editorial staff of *De Economist,* as well as from his publications, that he was well aware of the latest advances in analytic demographics, that he discussed drafts of his article with experts, and that he was well informed by experts, especially concerning the influence of the prolongation of the life span on the development of the population, the question of mortality, and that of the decrease therein (see for example, 1929, Foreword).

A possible explanation can be found in the exasperating obstinacy with which he held to the correctness of his first method. Another is the way in which he treated his critics. The lack of appreciation for his opponents *and* for the soundness of their criticism could have been reinforced by the treatment by Holwerda and Wiebols, whom he felt had snubbed him. Holwerda's criticism must have hit him especially hard since he had discussed an earlier version of his 1926 article with Holwerda and Methorst. He felt that for the greatest part he had accommodated the criticism which Holwerda had expressed in that earlier meeting.[13] As far as Wiebols was concerned, the editors of *De Economist* had relayed criticism which was worded in an extremely ungracious fashion.[14] The most important cause remained, of course, that he was absolutely convinced that the main reason for the population increase

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[12] Letter, dated 8-9-1926, from editorial board secretary G.M. Verrijn Stuart to the members of the board (Archives of *De Economist*, file 1926-1928).

[13] Letter, dated 19 June 1926 (Archives of *De Economist*, file 1926-1928).

[14] Correspondence dated 10-3-1927 and 13-3-1927 (Archives *De Economist*, file 1926-1928, under 't Hooft).

in the factor longer life expectancy (read: prolonging of the average age at death of the deceased) must be sought out. Moreover, he became too fascinated by his own metaphor of the conveyor belt and perhaps even suffered from the narrow-mindedness of the amateur who treads the field of the expert and willy-nilly creates a sort of 'honour' in maintaining the status of 'outsider' in that field of demographers and statisticians. To start with, he didn't have a high opinion of the existing literature concerning the population issue ('t Hooft, 1926, p. 47; 1927a). In any event, he tended to explain the lack of understanding that he experienced as resulting from his position either as outsider ('t Hooft, 1927a, p. 57) or as innovator with a new theory up against tradition-minded professionals who were slow to accept new ideas ('t Hooft, 1927a, p. 55), but especially as a practical man who worked exclusively with real data ('t Hooft, 1927a) or as a technician - natural scientist who had tackled the population issue as a problem of physical science ('t Hooft, 1927c, p. 319; 1937, pp. 370-371 and p. 375). For some, Holwerda, De Jong, and Van Praag, the criticism of the 't Hooft Method I was sufficient reason to malign the man's entire contribution, a development which did no good to the impression of 't Hooft in the postwar period. In fact, his critics were so successful that the image that was left in the minds of post-World War II demographers was that of an odd character. Notwithstanding, the reception given to his second method in the thirties was, generally speaking, very positive.

5 | Effects

5.1. Appreciation

There were critics who also had great esteem for 't Hooft's work (see for example Oly, 1930) or those, such as Derksen, who thought that issues dealt with by him were of such importance that they could not remain unsolved. Derksen was also of the opinion that the criticism had sometimes been unnecessarily negative (Derksen, 1937, p. 281). 't Hooft's method II was considered to be of equal standing with that of Wiebols, albeit that Wiebols' method was regarded as more refined (Van Zanten, 1930, p. 319; Van Zanten, 1938, p. 155). It becomes evident that his approach was taken seriously from, for example, the discussion that was held by Van Lohuizen and Delfgaauw in their study on the future expansion of the population of Amsterdam, as underpinning of *Het Algemeen Uitbreidingsplan* (AUP) ('The General Extension Plan') of 1935 for Amsterdam (*Grondslagen* ..., 1932, pp. 104-106). It is also apparent from studies, like the one done by Bakker Schut (1933) into the future population development of the Netherlands and

the Hague, that others were inspired by him. This also applies to Angenot's study (1934) on the population of the Netherlands and the Rotterdam harbour district.
Towards the end of the thirties, the 't Hooft method II played a part in a new phase in the debate on the population issue, which now centred on the threat of a population decrease as a result of the diminishing fertility rate. Van Vuuren, a professor of social geography at the University of Utrecht, one of those who viewed voluntary birth control as a danger to the nation, based his controversial pamphlet *Een waarschuwend woord aan het Nederlandse volk* ('A Word of Warning to the Dutch Nation') on the calculations of 't Hooft. This resulted in a serious reprimand - the discussion took place anew in *De Economist* - from Ubbink, one of the many critics of 't Hooft (Van Vuuren, 1936; 1937, p. 376; Ubbink 1937).[15] As late as 1942, 't Hooft's second method was still cited as source for the demographic basis of the Regional Plan for Eindhoven and Environs (*Streekplan...* 1942, p. 10).

5.2. Significance
What was the true significance of the contributions of 't Hooft? We have already seen that his second method in the twenties and thirties was considered as an alternative of equal standing to the Wiebols method. In the years that followed the publication of a book which included a bundling of all his publications up till then ('t Hooft, 1929), three important forecasting studies were published: the previously mentioned studies by Van Lohuizen and Delfgaauw, under supervision of the Amsterdam director of Public Works, De Graaf (Grondslagen..., 1932); one by Bakker Schut, director of the Hague Department of Urban Development and Housing (1933), and a study by Angenot, engineer/town planner at the Rotterdam Department of Urban Development (1934). Each of these studies compares the merits of the Wiebols method and the 't Hooft method II.
In the Amsterdam study, the mortality scheme used by 't Hooft to calculate the future mortality rate was judged to be essentially the same as that of the Wiebols method, although the latter was deemed more refined in terms of

[15] Ubbink (born 1902) was not so much interested in demography nor in population forecasting or the population issue; neither did he know much of the subject matter. As an engineer mechanic and reader of De Economist, he felt that something was wrong in 't Hooft's argumentation and he could not help reacting to it (oral information to the author).

mortality probabilities for the first years of life.[16] The final choice in favour of Wiebols was due to the fact that Wiebols used the (general) fertility rate and not the much simpler gross birth rate, as 't Hooft did (*Grondslagen...*, 1932, pp. 105-106).
The forecasts of Bakker Schut and Angenot were a different story. The work of 't Hooft played an important role in the calculations of both. Whereas it is true that Bakker Schut deemed the use of fertility rates by Wiebols to be principally correct, he felt that the factor fertility was too sensitive and dependent on too many and subtle influences to be able to indicate a future course of events with a great degree of probability. He preferred the 't Hooft Method II because of the use of mortality (dying out) schemes in ten-yearly intercensus periods, but he himself worked with his first method because in his opinion this was connected to 'more objective factors'; the average length of life and the absolute number of births per year.
It is interesting to note that the director of the Amsterdam Bureau of Statistics, Van Zanten, approved of Bakker Schut's preference for the 't Hooft method above that of his own Amsterdam colleagues Van Lohuizen and Delfgaauw, which was based on the Wiebols method. This was because, according to Van Zanten, Bakker Schut was interested in calculations for use in a practical situation, namely the calculations of the need for amenities and services in the city of the Hague, and not in a scientific demographic and mathematic study! Roundabout, laborious calculations such as the Amsterdam method might evoke a certain trust in the result, but remain nonetheless speculative (Van Zanten, 1933, p. 591). Angenot, too, relied on the work of 't Hooft. In his view, 't Hooft, *along with* Oly and Wiebols, belonged to that group of professionals who had helped to advance the correct insights into the matter of the future development of the population (Angenot, 1934, p. 58). Both the methods of Wiebols and 't Hooft had their strong points but were in essence the same. By combining them, Angenot attempted to improve them both. In real terms, this meant that he converted the extrapolated age-specific death rates employed by Wiebols (and which he did not consider to need improvement) into generation cohort survival schemes as 't Hooft had done. So Angenot didn't work with generation life tables as 't Hooft propagated. He merely converted the mortality probabilities used by Wiebols, slightly adjusted for Rotterdam, into survival schemes.

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[16] From a model-technical standpoint, this is not the case. In 't Hooft Method II, it was impossible, for example, to insert migration as a separate factor into the calculations. The future number of births was also estimated exogenously to the model.

5.3. The sting of criticism

It is noteworthy that no references to the forecasts of Bakker Schut and Angenot can be found in the debates of the 1930s on the merits of 't Hooft's work. It is equally noteworthy that no references to the weak points of 't Hooft's methods can be found in anything by Bakker Schut or Angenot. Quite unusual when one considers that Bakker Schut relied on the 't Hooft method II, and that Angenot approvingly employed the theory of the influence of the increasing span of life on the mortality rate based on the metaphor of the 'conveyor belt of life' (Angenot, 1934, p. 95).

A closer look, however, reveals that both have removed the sting of criticism from the theory on which 't Hooft had based his work: Bakker Schut did that by defining 'average span of life' not as the average age at death of the deceased of a given year, but as the life expectancy of that year's newborns; Angenot by limiting himself to the discussion of the influence of the increase in the span of life on the mortality rate in a stationary population.

Both, therefore, violated the essence of the 't Hooft method I, because in the middle of the thirties 't Hooft was still vehemently defending his original theory. Whether a basic misunderstanding of the man's theory was at the root of their criticism, that is, that it concerned a stationary population in the sense of demographic theory, as was the case for the criticism of so many others, or that they consciously wanted to remove the sting of criticism from the theory cannot be ascertained without further research. What is clear is that they interpreted the theory of 't Hooft I as a stationary population theory. They adapted the theory which lay at the foundation of the 't Hooft method within that one instance where it was indeed correct, that of the stationary population in the sense of stable population theory. As far as this was concerned, Bakker Schut and Angenot were in total agreement with Oly and Methorst, only they deemed it possible, if not probable, that the population of the Netherlands would finally arrive at a limit (stationary) situation (Bakker Schut, 1933, p. 73).

Ultimately, in 1939, the possibilities which the 't Hooft method offered were put to optimal use for the first, and simultaneously, for the last time by Kloos. As an employee of The Hague Municipal Department of Urban Development and Housing under Bakker Schut, he had been responsible for the calculations and graphs in Bakker Schut's forecast and was therefore quite familiar with 't Hooft's work (Bakker Schut, 1933, *Voorwoord*). In his study 'The National Plan' (*Het Nationaal Plan*), Kloos combined cohort-specific mortality curves in conformity with the 't Hooft method II with the use of the general fertility rate for calculating future births, as Wiebols had done (Kloos, 1939, pp. 47 et seq.). In terms of methodology of techniques, Kloos' calculation forms the apotheosis of the application of the contribution which

't Hooft furnished, in 1927 for the first time, to the advancement of forecasting methodology of the national population.

6 | In conclusion

The development of population forecasting in the Netherlands has come about in a brief time span. After 1922, any calculation of the future population of the Netherlands which was to be taken seriously dismissed the geometric method. From then on, the extent of the future population would be calculated on the basis of analysis and forecasting of the components of natural population growth. The insight that the age structure of the population to be forecasted was of paramount importance, even if one was only interested in the course of the total population, continued to expand. In 1937, Methorst made clear once and for all that the age structure is 'the pivot of the population issue' (Methorst, 1937).

It is necessary to mention that the geometric method was not applied indiscriminately by such people as Rückert, Rooy, and Verrijn Stuart. Often, in the process of assumption-making, the future development of the growth components natality and mortality was taken into consideration in determining the future growth rate.

The development of a forecasting method directed at the total Dutch population took a number of courses during the interbellum period. Employing a slight flair for the dramatic, one could say that this period was characterized by a struggle for the 'best' method. The greater part of this 'struggle' took place across successive publishing years of the oldest economic journal in the Netherlands, *De Economist*; it can be taken as a sign of the importance that was attached to this issue.

It can be said that there was a continuous, progressive course starting with Methorst (1922), going on to the insurance mathematicians Holwerda (1922) and Oly (1924) to Holwerda's student, Wiebols (1925), and from there via the population forecast for Amsterdam by Van Lohuizen and Delfgaauw (*Grondslagen* ..., 1932), and that for the entire nation by Angenot (1934) through to Van der Waerden (1936/1937) and Methorst (1937), and finally the population forecasts which were published by the CBS during and after the Second World War. This course describes the progress from the geometric method over to the components method and then the cohort-survival method. There is also a parallel 'failed' course running from Methorst (1922) via an unsuccessful attempt to improve on the Methorst method by 't Hooft Method I (1926) through to the forecast for the Netherlands and the Hague by Bakker Schut (1933). Finally, there is a third

dead-end course running from the 't Hooft method II (1927; 1929), regarded by contemporaries to be of equal standing with the Wiebols method, to Angenot's forecast (1934) and to end at Kloos' national forecast (1939).

The analysis and forecasting techniques used were certainly not always the most advanced. Often, a great amount of potentially valuable data was left unutilized. The calculation methods of which both Verrijn Stuart (1919; 1921) and Methorst (1922) availed themselves were effective in light of their intentions, but did not reflect what was available and possible, considering the then current 'state-of-the-art' in the field of demographic analysis and forecasting. Nevertheless, Verrijn Stuart's contributions were for a different reason the decisive factor for the 'takeoff' of modern population forecasting in the Netherlands. He was the one who, in broad terms, raised the debate on the question of the population issue and the problems linked to sharp, continuous population growth. His calculations from 1919 and 1921 and the annual meeting of the VSS, which he in a certain sense 'orchestrated', were instrumental in this context. If the contributions of Verrijn Stuart can be regarded as stimulating, the approach of the methodological 'trend shift' came from the side of the insurance mathematicians, with Holwerda at the forefront. It was Holwerda's idea to work with age-specific 'probability systems' in forecasting, and it was his Ph.D. student Wiebols who implemented it.
Holwerda was, however, neither inclined to, nor able to judge on its merits 't Hooft's most important contribution, the introduction of generation mortality, given the alternative of the Wiebols method.
The positive contribution by 't Hooft to the advancement of population forecasting has unjustly fallen into oblivion, clouded by negative after-images (De Jong, 1946; Van Praag 1976). As is apparent from the references to and application of his methods in the interbellum period, his ideas were definitely viewed in a more positive light then. 't Hooft provoked his opponents, most of them experts in the field of population forecasting and demography in his time, into debate as to the best method, and in this way contributed to the dissemination of knowledge and insight into the analytical-demographical backgrounds of population dynamics and forecasting. His conveyor belt metaphor, although enlightening, simultaneously created confusion. He also confused others with his use of the terminology associated with the analytical-demographical concept of the stationary population in a context that was not suited to this terminology. His graph of the 'Survival in the Netherlands' in successive birth cohorts was, on the other hand, extremely enlightening and possibly the first of its type in the Netherlands. The cohort approach to mortality as introduced by 't Hooft (in actuality, a 'still present in the

Netherlands' approach on a cohort basis) found no applications after Kloos in 1939. The idea of using generation life tables in population forecasting never gained a foothold. As relevant as this improvement was, certainly in a time with major changes in mortality, to this day, the Netherlands CBS does not work with survival rates based on generation life tables (Keilman, 1990, pp. 64-65).

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SEX EDUCATION IN FLANDERS: Data on the perspective of students, teachers, and experts

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Abstract. This article is based upon two large studies (De Bourdeaudhuij *et al.*, 1992; Geeraert, 1993). A comparison is made between the adults' (school principals, teachers, and external experts) and the students' perspectives on relevant themes, together with the preferred timing of school-based sex education in Flanders. Teachers and school principals were reached by drawing a representative sample of 400 schools. Data on almost 3200 students aged 15-21 years old were collected using the evaluation study of the recently implemented video program. A major conclusion from our results is the need for an earlier discussion of most sex education topics in secondary school. The main reasons for dealing with these topics even before students express an explicit need for this, are the adolescents' short-range perspective, their underestimation of own risk, their gaps and misconceptions in knowledge, and the fact that their first sexual intercourse is often perceived as overwhelming and unexpected.

Keywords: Sexual education; Belgium.

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1 | Introduction

In 1990, in connection with a change in legislation, school-based sex education was strongly encouraged in Flanders. A series of initiatives were taken by different organizations. Government provided funds for curriculum development and teacher training. Family planning organizations and school psychology and health services were all expected to contribute.
In 1991, commissioned by the Department of Education, a sensitization program was released consisting of a video film about sex education ('Later begint nu') together with brochures for teachers and students in secondary schools (Geeraert, 1991a and b).
This article is based on two large studies. One study evaluates the implementation of the afore-mentioned video program about sex education (Geeraert, 1993a), the other study is a systematic large-scale survey on the practice of sex education in Flanders (De Bourdeaudhuij *et al.* 1992; Csincsak *et al.*, 1993). Special attention will be given to the major themes in school-based sex education, together with the appropriateness of the timing of these themes in the secondary school curriculum. No overall formal sex education curriculum can be found in schools in Flanders. It is unlikely that this will ever be the case. The differentiation of the Flemish school system in three major educational systems (private, mainly Catholic; state; and organized by local authorities in communities and provinces), together with the relative autonomy of local schools, result in a wide range of practices.

Awareness has grown in the past decades about the necessary components for sex education to be effective. The primary focus on increasing knowledge has been supplemented by more essential goals, such as developing social skills and skills in using contraceptives, resisting peer pressure, promotion of personal responsibility, tolerance for other (sexual) lifestyles, etc. Among the methods needed to reach these goals are active teaching strategies, enough time and curriculum space, a co-ordination structure, and a cross-curricular approach (De Haes, 1985; David and Williams, 1987; Rice, 1987; Braeken *et al.*, 1984; Van Oost *et al.*, 1994; Geeraert, 1993b).
Besides these factors, it is important to pay special attention to the content level, in order to make sex education more effective.
DeMuth Allensworth and Symons (1989) argue that too much time might be spent in general curriculum-building, without studying the needs of the target population. Consequently, curricula are rarely tailored to the needs of a specific group of students. Prepared curriculum materials do provide direction or, more aptly, a starting point for busy teachers. Nonetheless,

complete reliance on such materials, without considering the special needs of the students, is inappropriate.
The need for reliance on the questions adolescents ask is also stressed by other authorities and researchers in recent literature. The National Professional School Health Education Organizations in America stress the need for a health education program (including sex education) that has a planned, sequential, pre-kindergarten to grade 12 curriculum, based on students' needs and current health concepts and societal issues (DeMuth Allensworth, 1993). Massey (1990) indicates that the joint WHO/UNICEF/UNFPA report of 1989 on the health of young people identifies the lack of awareness or sensitivity to the needs of young people as an important barrier to effectiveness. Paulussen and Bartels (1989) propose to engage a delegation of students at the moment the year curriculum for sex education is decided upon. Campbell and Campbell (1990) propose a marketing model for guiding sex education. The marketing model uses the consumers' perceived needs as a starting point. Curriculum developers must start with data indicating the types of questions adolescents have about sex.

Following Weissberg *et al.* (1989), to be effective, sex education programs must not only be sensitive to the needs of young people, they also have to be developmentally appropriate. Students become frustrated when the aspects being conveyed are too complex; they become bored when they are too simple. In addition, curriculum content must be relevant to students' life experiences, yet not too personal or threatening. Well-designed programs, which are developmentally appropriate, focus on the problems and tasks adolescents report experiencing frequently (Weissberg *et al.*, 1988). Some researchers investigated these stages in the development of intimate relationships and sexuality (Rademakers and Straver, 1990; Geeraert, 1987; Reiss, 1980; Murstein, 1976, 1987; Lewis, 1972, 1973). A first period of relational development is characterized by a growing interest in the other, often based on physical attraction. An attempt is made to communicate and to understand each other. In a second period, communication and self-disclosure become more intimate; similarities in values, role attitudes, and expectations are investigated and discussed. In a third period, relationships become more stable and long-lasting, interpersonal role compatibility and dyadic crystallization is achieved.

However, with respect to sex education, one wonders whether a strong reliance on the needs of the students is always appropriate. Campbell and Campbell (1990) state that adolescents do not share the adult's world view. Adults place greater emphasis on the long-term consequences of actions. To

the adolescent, long-term consequences of current actions may be too remote and abstract to guide current behaviour. Behaviour may be guided primarily by the current emotional state, current group norms, and the short-term consequences of actions. Unprotected sexual activity has a number of potential long-term consequences, such as pregnancy and sexually transmitted diseases (STDs). It seems reasonable to adults that one should highly value these future health consequences of one's behaviour. To the adolescent, STDs and pregnancy are among the least noted health problems (Blum, 1987), where colds and depression were among the leading health concerns.

This article compares the adults' (school principals, teachers and external experts) and the students' perspectives on relevant themes in sex education, together with the preferred timing of these themes. These perspectives are further referred within the teaching practice of school-based sex education in Flanders.

2 | Methods

2.1. Instrumentation

In the larger studies, school principals, teachers, external experts, and students responded to a selected number of questions concerning preferred themes or topics in sex education, as part of a more global questionnaire. School principals, teachers, and experts were asked in which year(s) of secondary school the different topics should be discussed, ranging from the first to the seventh year (students aged 13 to 21). Teachers and external experts who were already involved in sex education also indicated in which years they actually treated these topics. Finally, students of the third through seventh year (ages 15 to 21) rated their need for information about the topics on a five-point scale ranging from 'I don't need any information at all on this topic' (1) to 'I need information on this topic very much' (5).

The themes or topics presented were based on prior research by Geeraert (1983). They were adapted to the present circumstances (Geeraert, 1991a and b) and are the following:

1. biological information (sexual organs; procreation; wet dreams; menstruation)
2. sexual experiences (orgasm; types of sexual experience e.g. masturbation, petting, intercourse)

3. contraceptives (use of condoms; use as well as pros and cons of the pill, the morning after pill, the purchase of contraceptives)
4. Sexually Transmitted Diseases (=STDs) (what are STDs, how to protect oneself against STDs)
5. relational aspects (making contact, remaining yourself in a relationship, relational problems, sex role expectations; hetero- versus homosexuality, role patterns, values, and norms).

In order not to overburden the respondents, a shorter version of the list was used in the first part of the study (see Tables 1 and 2 in section 3). In exploring both the practice of sex education in the classroom and students' perspectives, an extended list was used (see Tables 3 to 5 in section 3). For purposes of review only, one or two topics from each of the mentioned categories are reported in the following tables. Other results can be found in the extended reports (De Bourdeaudhuij *et al.*, 1992; Csincsak *et al.*, 1993; Geeraert *et al.*, 1993a).

2.2. Participants

Teachers and school principals were selected by drawing a representative sample of 400 schools out of a total of 1,050 secondary schools in Flanders. A package consisting of questionnaires for both the school principal and teachers was mailed to the principal. He or she was asked to invite six teachers, preferably one teacher in each of the six years, to fill in the teacher's questionnaires and return them to the research team directly, in April 1992.

Nine schools did not organize secondary education, as a consequence the total sample was reduced to 391 schools. At least one questionnaire was returned by 260 schools out of 391 (66.5%). These schools were almost equally spread over the country and were representative of the three educational systems (private, mainly Catholic; state; and organized by local authorities as communities and provinces), and of the major types of instruction (general, technical, and vocational). 46% of the school principals (180 out of 391) participated in the study, as well as 777 teachers' (33%). The teachers' responses were equally spread over the six years. The percentage of schools from which at least one teacher responded was 62%.

External experts participating in this study belonged to the four most important centres in Flanders involved in school-based sex education: school guidance centres (= PMS), medical school services (= MST), and two groups of centres active in the field of family planning and counselling, Centres for Family Planning and Sex Education (= CGSO) and Centres for

life and family matters (= CLG). Recent state funding encouraged these centres to take an active part in school-based sex education. Nearly all centres (in total 339) were invited to participate in the study: 162 PMSs, 107 MSTs, 61 CLGs, and 9 CGSOs. A response of 75% was obtained, ranging from 57% from the CLG centres, to 76% from the PMS centres, 78% from the CGSO centres, and 82% from the MST centres.

Data from the students were obtained as part of the aforementioned video program. Out of 410 secondary schools that ordered the video program, 119 schools used it between December 1991 and June 1992. Evaluation data were gathered from 71 of these 119 schools. Almost 3200 students in the third through seventh year of secondary school (ages 15-21) filled in the questionnaire after video presentation and class discussion. The aim of the video program was to facilitate communication about relationships and sex, and to note further needs for sex education; 53% of the sample were boys, 47% were girls. More than half the sample (61%) was between 17 and 18 years old, 17% between 15 and 16 years old, and 22% between 19 and 21 years old. For reasons of comparison between teachers, experts and students, in this article only the third through seventh years are taken into account. Differences based on age and sex of the students are discussed elsewhere (Geeraert, 1994).

3 | Results

3.1. When should topics be discussed: opinions of teachers and school principals (Table 1)

Principals and teachers agree that biological aspects of sexuality, such as procreation and sexual organs, should preferably be discussed in the first two years of secondary school. There is a minor difference of opinion about the timing of informing students about masturbation, petting, and intercourse. Teachers prefer the third year (mainly 15 year olds), followed by the fourth and fifth year (mainly 16-17 year olds), while school principals indicate the fifth year as most appropriate. Information on contraceptives and STDs is preferred by teachers and principals in the fourth, fifth, and, to a lesser degree, in the sixth year. Relational aspects, such as relationship problems, moral considerations, and homo- versus heterosexuality, are mostly postponed until the fifth and sixth year (mainly 17-18 year olds).

Table 1. Opinions of school principals and teachers about the desirability of teaching major topics of sex education in different years of secondary school (in %)

Categories	Major topics	Respondents	1st	2nd	3rd	4th	5th	6th	7th	not
Biological aspects	sexual organs	principals	53	45	29	15	15	10	5	2
		teachers	62	46	31	20	15	13	6	2
Sexual experience	masturbation, petting, intercourse	principals	6	11	27	29	39	28	15	11
		teachers	13	19	45	40	40	35	16	3
Contra-ceptives	use of contraceptives	principals	4	8	31	38	42	28	13	1
		teachers	6	12	34	42	46	36	16	4
STDs	how to protect against	principals	4	8	29	38	46	29	14	1
		teachers	7	13	36	43	52	42	21	2
Relational aspects	moral considerations	principals	10	12	28	42	55	47	21	1
		teachers	10	13	39	39	50	49	24	4

From this we can conclude that, except for the biological aspects, principals and teachers agree that the fourth, fifth, and sixth year of secondary school is most appropriate for discussing nearly all themes of sex education.

3.2. When should topics be discussed: opinions of external experts (Table 2)

Compared to teachers and school principals, less concensus was found among external experts of the participating centres, except for the biological aspects, for which all centres consider the first two years to be most appropriate. Large differences in opinions were found for sexual experiences (masturbation, petting, intercourse): CGSO centres believe that these themes should be discussed from the first and second year onward. The other centres prefer the third year, but mainly the fourth and fifth year.

All centres indicate that the third and fourth year are appropriate for discussing contraceptives. Only minor differences between the centres were found:

Table 2. Opinions of external experts about the desirability of teaching major topics of sex education in different years of secondary school (in %)

Categories	Major topics	Respondents	1st	2nd	3rd	4th	5th	6th	7th	not
Biological aspects	sexual organs	PMS	82	59	26	17	9	7	6	4
		MST	83	53	14	15	9	5	3	0
		CLG	85	65	65	23	8	8	4	0
		CGSO	100	57	29	14	0	0	0	0
Sexual experience	masturbation, petting, intercourse	PMS	17	22	48	54	54	39	22	6
		MST	11	18	38	46	47	43	23	1
		CLG	27	31	69	77	73	73	62	0
		CGSO	100	71	86	57	71	57	43	0
Contra-ceptives	use of contraceptives	PMS	6	15	59	69	46	36	20	0
		MST	4	5	35	62	53	42	17	1
		CLG	12	19	58	81	77	77	65	0
		CGSO	14	43	86	86	71	57	29	0
STDs	how to protect against STD's	PMS	4	15	52	63	57	44	26	0
		MST	5	4	26	58	62	46	21	1
		CLG	4	19	39	65	81	81	69	0
		CGSO	43	43	71	71	86	86	43	0
Relational aspects	moral considerations	PMS	17	19	37	52	74	70	39	2
		MST	7	5	31	41	61	68	29	3
		CLG	12	8	32	60	80	76	60	8
		CGSO	43	43	57	43	57	57	43	29

PMS = School guidance centres
MST = Medical school services
CLG = Centres for life and family issues
CGSO = Centres for family planning and sex education

MST centres prefer to start in the fourth year, while CGSO centres prefer to start from the second year. Information on STDs is seen as appropriate for students in the fourth and fifth year, except for the CGSO centres, that indicate once more that this information is already needed from the first years of secondary school. Similar differences between the centres were found for the relational themes: CGSO centres prefer to start much earlier with topics

like homo- heterosexuality and moral considerations. The other centres consider the third, fourth, and especially the fifth year as most appropriate.

3.3. Topics actually dealt with by teachers in the different years (Table 3)

Teachers involved in sex education were asked what themes were actually treated and in what year(s). The biological aspects of sexual functioning are concentrated in the first and second year of secondary school. Topics related to sexual experience appear in the third (masturbation, petting, ...) and especially in the fifth and sixth year (orgasm). All aspects of contraceptives are discussed by 30-40% of the teachers in the third year and by 50-60% in the fifth and sixth year. The fifth and sixth years are chosen by more than 70% of the teachers for informing students about STDs. However, 56 to 64% of the teachers reports informing their students earlier, in the third and fourth year.

Seventy % of the teachers deals with sex role expectations, role patterns, and making contact in the third year. About 50% also discusses these themes in later years. Sixty to seventy % of the teachers treats relational aspects such

Table 3. Teachers who discuss the following themes in the various years of secondary school (in %)

Categories	Major topics	1st	2nd	3rd	4th	5th	6th	7th
Biological aspects	sexual organs	79	61	33	35	28	33	13
Sexual experience	masturbation, petting, intercourse	22	31	57	43	63	54	35
Contraceptives	use of condom	8	28	38	48	55	53	35
STDs	how to protect against STDs	15	31	56	64	72	72	60
Relational aspects	making contact	20	36	70	48	52	39	31
	moral considerations	25	32	65	51	74	65	61

as remaining yourself in a relationship, homo- versus heterosexuality, and relational problems in the fifth and sixth year; 50% (also) in the third and fourth year. Moral considerations are discussed from the third year on, and in all later years.

3.4. Topics actually treated by external experts in the various years (Table 4)

Biological aspects of sexuality are taught by all centres in the first two years, with a clear decrease in the later years. The centres report distinct differences in the timing of themes about sexual experiences, contraceptives, and STDs. In general, CGSO and PMS centres start earlier, notably in the first years of secondary school. MST centres discuss these themes at a later time, with the fifth year as most important. Aside from this, the most important years for informing students about contraceptives and STDs are the fourth, fifth, and sixth year for all the centres.

As far as the relational aspects are concerned, the percentages of centres that do not discuss these topics are most striking: 20 to 45% of PMS and MST centres do not discuss these themes. And for those centres that do provide information on these topics, timing in the students' curriculum is quite diverse. In general, CGSO and PMS centres start earlier, MST centres start in the fifth year, whereas CLG centres remain in between.

3.5. Students' needs for information and education in the different years (Table 5)

Once students are in the third year of secondary school, less than 30% of them expresses a wish for more information on biological aspects of sexuality. This might mean that three quarters of the students believe they have already been sufficiently informed during elementary school or in the first two years of secondary school. Thirty to 44% of the third year students expresses an explicit need for information about sexual experience: in the third and the fourth year, the need for information on masturbation, petting, intercourse, and orgasm is most prevalent.

With respect to contraceptives, 30 to 40% of the students wants information on the pill in the third, fourth, and fifth year. Discussing the use of condoms and the purchase of contraceptives is no longer necessary, according to 50% of the 15 year olds and according to 60 to 70% of the older students.

Table 4. External experts who discuss the following themes in the various years of secondary school (in %)

Categories	Major topics	Respondents	1st	2nd	3rd	4th	5th	6th	7th	not
Biological aspects	sexual organs	PMS	100	79	58	52	41	23	-	15
		MST	75	75	46	44	39	31	11	8
		CLG	86	83	72	30	22	21	14	12
		CGSO	86	67	17	40	20	14	25	14
Sexual experience	masturbation, petting, intercourse	PMS	60	50	37	55	58	54	17	18
		MST	17	42	36	54	64	47	22	8
		CLG	29	17	78	87	83	88	79	4
		CGSO	100	100	100	75	75	83	67	-
Contra-ceptives	use of condoms	PMS	33	38	53	77	72	56	17	10
		MST	11	-	23	60	77	64	22	1
		CLG	14	17	6	87	94	83	71	4
		CGSO	50	60	40	75	100	100	67	-
STDs	how to protect against STDs	PMS	60	47	58	86	78	82	50	4
		MST	5	16	27	69	82	71	33	-
		CLG	14	17	67	78	100	100	71	-
		CGSO	67	60	100	75	100	100	100	-
Relational aspects	making contact	PMS	60	47	58	64	61	40	17	19
		MST	11	37	32	31	47	26	11	37
		CLG	14	17	83	87	72	76	53	4
		CGSO	83	100	100	25	-	17	33	-
	moral considerations	PMS	60	38	32	55	45	54	17	26
		MST	6	11	5	38	57	43	22	31
		CLG	29	33	44	70	89	80	53	15
		CGSO	67	80	100	75	100	83	67	-

PMS = School guidance centres
MST = Medical school services
CLG = Centres for life and family issues
CGSO = Centres for family planning and sex education

The nature of and protection against STDs are the most important topics about which students express an explicit need for information once they are 15 years old (third year). The need for information is most prominent in the third year, followed by the fourth and fifth year: more than half of the students wants to know more about this.

Table 5. Students needs for information and education in the various years (in %)

Categories	Major topics	Need for information	3rd	4th	5th	6th	7th
Biological aspects	sexual organs	no	74	70	67	77	70
		neutral	16	15	17	13	13
		yes	10	15	16	10	17
Sexual experience	masturbation, petting, intercourse	no	36	41	42	56	61
		neutral	20	16	20	16	18
		yes	44	43	38	28	21
Contra-ceptives	use of condom	no	50	56	57	68	74
		neutral	21	18	19	17	13
		yes	29	26	24	15	14
STDs	how to protect against STDs	no	24	38	36	51	61
		neutral	19	13	15	13	15
		yes	57	49	49	36	24
Relational aspects	making contact	no	30	40	45	55	59
		neutral	13	15	19	19	19
		yes	57	45	36	26	22
	moral considerations	no	34	40	42	54	61
		neutral	20	18	21	18	21
		yes	46	42	37	28	18

The need for information on relational aspects decreases over the years from the third year onward. About half of the students wants to discuss the following in the third year: sex role expectations, making contact, remaining yourself in a relationship and moral considerations. Only one third is interested in information on role patterns and homo- versus heterosexuality.

4 | Discussion

The aim of this article was to study the preferences of school principals, teachers, external experts, and students, together with teaching practice on

major topics in school-based sex education. No recent studies executed in the Low Countries and dealing with comparable topics could be found. Comparisons will be made with foreign (mostly American) research.

The first comments are on methodological aspects. A response rate of 33% for the teachers and 46% for the school principals may seem rather low, but this corresponds with other research. In a similar study in the Netherlands (Mellink, 1989), a total response of 26% was obtained for the teachers, from 53% of the schools.
We are aware that using the procedure of reaching teachers through school principals, also used in other studies (Mellink, 1989; De Weerdt and Visser, 1987), may have some disadvantages: principals who do not want to participate may refuse to inform the teachers, principals who distribute the questionnaires may select respondents themselves which, in turn, could result in a selection of teachers who have a positive attitude towards school policy (about sex education). For these two reasons, the respondents in this study might be a positive selection.
As far as the students are concerned, it must be noted that all of them filled in the questionnaire after classroom discussion (mostly 2 to 4 hours) in connection with the video. The video generally handles all of the aforementioned topics: STDs, contraceptives, relational aspects like making contact, remaining yourself in a relationship, relational problems, norms and values, ... As a consequence, possibly the 3200 students we reached are more sensitive to further information on sex and relational topics in general, compared to average students of this age.
The target population for the video program was the 3rd-4th year of secondary school, students being 15 to 16 years old. However, many school principals and/or teachers decided to only show the video to older students, mostly also with a positive result (Geeraert, 1993). This means that data were obtained from students in the third to seventh year of secondary school. Thirteen and fourteen year olds (first and second year) are not included in this study. This can be deplored, as several American studies report that there is an explicit need for information at that age (Finkel and Finkel, 1985; Calamidas, 1990; Grossman, 1982; Woodcock *et al.*, 1992).

All parties involved in sex education agree that students should be informed about biological aspects in the first two years of secondary school. Practice in the classroom reflects these preferences.
Less agreement was found for the timing of topics such as masturbation, petting, intercourse, and orgasm. Students want information on these topics in the third and fourth year; teachers and most experts recognise this need

at the proper time. School principals, however, state that the fifth year is most appropriate. Looking at practice in the classroom, it is striking that topics on sexual experiences are treated by teachers in the fifth and sixth year. Turning to centres, the PMS and CGSO centres start at an earlier time, CLG centres follow in the third and fourth year, MST centres in the fifth year. From this we can conclude that there is a lack of correspondence between the needs students express, and the reaction from both teachers and MSTs. However, practice by both teachers and MSTs, corresponds with the preferences of school principals who also believe the fifth year is most appropriate.

Just under 50% of the students wants information on the pill in the third, fourth, and fifth year. The study by Geeraert (1993a) reports that for some topics, year of secondary school is a bad measure to formulate students needs for information and education on sexuality. With respect to gender, there is a large difference between girls and boys. More girls (68 to 47%) than boys (17 to 38%) wish information on the pill in the third to fifth year. Differences between boys and girls decrease or disappear in later years. The variable age shows more differences than years in school (Geeraert, 1993a). More detailed results based on age and gender of the respondents will be discussed elsewhere (Geeraert, 1994).
The reaction of adults is quite similar to that concerning sexual experiences: all parties agree that the third, fourth, and fifth year are most appropriate, but MST centres and teachers postpone this topic; more than 50% of the teachers until the fifth and sixth year, MST centres start with the fourth year. Only one fifth of the students in the third year, and even less in the following years, reports a need for information on the use of condoms and the purchase of contraceptives. Boys are more interested than girls about the use of a condom (Geeraert, 1993a). This absence of an explicit need for information about condoms is rather striking, as from other studies we learned that knowledge about and skills in handling condoms are often inadequate. Belgian studies by Buysse (1993) and Van Hove (1989) report that most students are well aware of how the virus that causes AIDS is transmitted. However, there are plenty of misconceptions on condoms, for example, on the use of two condoms simultaneously or on using a lubricant. Moreover, students lack skills in talking about condom use, in resisting having sex under certain conditions, and in talking about sex and prior sexual relationships. From this it can be argued that it is not always appropriate to rely on the needs and wishes of the students for adequate prevention. That more than half of the teachers and three quarters of the external experts actually discuss the use

of condoms in the fifth and sixth year of secondary school can be regarded as a positive aspect.

For boys and girls aged 15 years and older, the most important need for information is about STDs. This need is most prominent in the third year, followed by the fourth and fifth year. In the fourth and fifth year, girls are more interested than boys (Geeraert, 1993a). Teachers, school principals, and most experts (with the exception of CGSO centres) prefer the fourth and fifth year. More than half of the teachers and of PMS, CLG, and CGSO centres actually discuss STDs in the third year.

Students want information on relational aspects in the third year. More boys (52%) are interested than girls (42%) in role expectations, while more girls (64%) than boys (50%) want to discuss relational problems (Geeraert, 1993a). Teachers and most external experts give this information at the proper time. It should be kept in mind, however, that these themes are not dealt with at all by a considerable group of PMS and MST centres (20 to 45%). In addition to the fact that they also omit (20% of PMS centres) or postpone (MST centres) information on sexual pleasure and sexual experience, we must be aware of the danger that sex education might be too factual and far from the concerns and feelings of the adolescents.

Our findings so far indicate that, according to most teachers and experts (except CGSO and PMS), some themes in sex education, such as sexual experience, contraceptives, and STDs, should be organized and discussed at an earlier point in the curriculum, in order to answer the interests expressed by the students. As stated before, researchers stress that curricula may prove more successful in achieving their intended objectives if the perspectives of adolescents were made an integral and primary characteristic of the curriculum (DeMuth Allensworth and Symons, 1989; DeMuth Allensworth, 1993; Massey, 1990; Paulussen and Bartels, 1989; Campbell and Campbell, 1990). Data from the larger study (De Bourdeaudhuij *et al.*, 1992) indicate that teachers get their information about what students want to know, most often orally from some students in or outside the classroom, or from television, radio, and brochures. Less than 20% use a written questionnaire in order to get an idea of what students prefer.
The above-mentioned results (Geeraert, 1993a) also reflect the earlier maturity of girls, and demonstrate the necessity for teachers to take this into consideration. Need for information on sexuality is often related more to the variables age and sex than to year. The sensitization program with the video gives clear information on this point.

Considering the adaptation of themes to the developmental level of the students (Weissberg *et al.*, 1988; Rademakers and Straver, 1990; Geeraert, 1987; Reiss, 1980; Murstein, 1976, 1987; Lewis, 1972, 1973), our results show that themes such as making contact, role patterns, expectations, and staying yourself in a relationship are correctly discussed in the first four years of secondary schools. Amazing, however, are the differences in timing between the centres for themes such as making contact, staying yourself in a relationship, and relational problems. Making contact is treated by PMSs and CGSOs in the first years, which seems appropriate if this theme refers to dating skills. CLGs and MSTs discuss this theme in later years. Based on the aforementioned stages in relational development, this can be considered as too late or it can indicate that another content is given to this theme. This difference in interpretation can also be the case for themes like staying yourself in a relationship and relational problems, which are already treated by PMSs in the first year. The other centres and teachers postpone these themes until later years, which seems appropriate.
As mentioned before, it is regrettable that a considerable group of PMS and MST centres do not discuss these relational topics at all during sex education. In the past, researchers argued that the risk must be recognized and countered that sex education would become limited to 'technical' information (Deven, 1989). Emotional topics and sexual pleasure are often omitted (Meeuws, 1992). Recent American literature also warns that, especially by untrained teachers, the biological model of sex education is often used, thus neglecting affective and social aspects (Scott and Thomson, 1992). Woodcock *et al.* (1992) reach comparable conclusions in their research: female students tended to criticize sex education as being biological rather than relational, whereas male students were more likely to find the material too basic in terms of information on the mechanics of sexual intercourse. Many students between 16 and 19 years old, interviewed by Hill (1993) about HIV and AIDS education, also stressed the need to cover social aspects in sex education. Recent research by Geeraert (1993b) in Belgium also reported the same criticism of secondary school students on the fact that sex education in the school and at home is often too technical and biological.

However, the AIDS epidemic and the consequences of unwanted pregnancy are too serious to allow interventions to be based solely upon the adolescents' needs. Certain types of information (contraception, use of condoms, nature of and protection against STD) must be discussed in secondary school, despite the fact that students do not express an explicit need for this. Moreover, recent investigations show that adolescents tend to be unrealistically optimistic about their own susceptibility to HIV infection. They

underestimate their own risk by exaggerating the efficacy of their own preventive actions, or they exaggerate the risk of 'average' individuals, comparing themselves with people unusually high in risk. Education may help to prevent such faulty inferences, but whether these interventions will actually increase self-protective behaviour remains to be tested (Weinstein, 1989).

A third major reason why topics such as contraception and STDs should be discussed at an earlier point can be found in the number of sexually active students at earlier ages. From this point of view, sex education has to be given in the first place to help teens and pre-teens prevent some of the serious negative consequences of sexual activity - that is, unwanted pregnancies and STDs. Geeraert (1987), Visser *et al.* (1991), and Van Hove (1989) argue that 15 to 20% of the 16 year olds in Belgium have already had sexual intercourse. In comparison with our results on the practice of sex education, this suggests, that in order to prevent unwanted pregnancies, abortion, and AIDS, it might be advisable to discuss contraception and STDs earlier, at least in the first two years of secondary school. Foreign research, mostly American, comes to the same conclusions. Already in 1978, Farrell repeated the argument of earlier birth control advice in the context of decreasing age at first intercourse, a trend which has apparently continued since then (Ford and Bowie, 1989; Ford and Morgan, 1989; Stenner and Ingham, 1992). Most studies among teenagers show that about half of 16-year-old females have sexual experience. Early sexual experience is associated with an increased number of partners. The studies show patterns of serial monogamous relationships and increasing vulnerability to various sexually-transmitted diseases (Thompson, Fraser, and Anderson, 1993). From this, it often follows that, from the point of view of prevention, sex education should be more fully integrated into the junior high school curriculum, as was already advocated by Finkel and Finkel (1985). Interpersonal relationships, the effects of peer pressure, self-esteem, birth control, and human reproduction should be included in the second year of secondary school. By introducing these topics, before sexual activity starts, the concepts of responsible interpersonal and sexual relationships could be introduced and discussed. Class discussions could also serve to allay fears, dispel myths, and clear up confusion about sexual intercourse among those who are not yet sexually experienced. These arguments are also relevant for our situation: the fifth and sixth year of secondary school are the preferred years for informing students about contraceptives and STDs for teachers and also for some experts. For a considerable proportion of students, this will be too late.

Prior research also indicates that adolescents often feel overwhelmed and often did not expect their first sexual intercourse (Buysse, 1993; Geeraert, 1987; Van Hove, 1989; Thompson *et al.*, 1993). Early sexual experience was significantly associated with short-term relationships without using contraception, more partners, and, as a consequence, a higher risk of unwanted pregnancy and AIDS. As the behaviour of these young teenagers is determined by considerations other than health, providing effective health education at an early point in time seems necessary.

Despite the aforementioned advantages of an earlier discussion of several topics in sex education, the dilemma over the timing of sex education input is not easy to resolve. Principals and others have to decide what is appropriate, legal, and possible, all against a background of conflicting social, cultural, and religious views (Scott and Thomson, 1992). Opponents of early sex education argue that students would be more likely to have sex after a course in sex education. Research shows, however, that early input does not lead to more extensive sexual activity on the part of young people, but leads to more careful behaviour instead: teenage females are less likely to become pregnant and are more likely to use contraceptives (Geeraert, 1983; Jones, 1986, 1988; Allgeier, 1992; Woodcock *et al.*, 1992; Finkel and Finkel, 1985). Some studies also reveal that informed young people are the ones most likely to delay their first sexual experience (Gordon, 1990, Howard and McCabe, 1990).

5 | Conclusions

A major conclusion from our study is the need for an earlier discussion of most topics of sex education in secondary school. This earlier discussion is based upon different grounds, depending on the nature of the themes. For relational themes and aspects of sexual experience, we can rely on the special needs of students and discuss the questions adolescents ask. The reality is that classes are heterogeneous in terms of students, with widely varying levels of sexual knowledge, attitudes, and experience. As a consequence, clear guidelines for the timing of these themes are difficult to formulate. The sensitization program with the video, mentioned before, can give clear information on this point. Nonetheless, complete reliance on the special needs of students for themes such as contraceptives and STDs, necessary for an adequate prevention of unwanted pregnancy, abortion, and AIDS, is often inappropriate. Major reasons for dealing with these themes even before students express an explicit need for it are the adolescents' short-range

perspective, their underestimation of own risk, their gaps and misconceptions in knowledge, and the often overwhelming and unexpected first sexual intercourse.

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DEMOGRAPHIC TRENDS IN RUSSIA[1]

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Abstract. In order to understand the demography of Russia today, one needs to know its history and the diversity of its people. This paper describes the main demographic changes in Russia during the 20th century, with an emphasis on recent changes: aging, ethnic composition, mortality, marriage and divorce, fertility and family planning, and migration. It brings together information from a wide range of publications of Russian and Western origin. Much of the data has only become available very recently. Among the main findings are: (1) the number of births declined very rapidly in recent years, mainly a result of the socio-economic situation but also an echo effect of low fertility during World War II, (2) most women marry and have their children in their early twenties, (3) abortion remains the dominant method of family planning, (4) compared to other countries, mortality is particularly high among adult males, largely a consequence of deaths associated with accidents, poisoning, and violence, (5) the difference

[1] The Sovjet Union ceased to exist on 31 December 1991. It followed the agreements of Minsk on December 8, 1991 and Alma-Ata on 21 December 1991, creating the Commonwealth of Independent States. The Soviet Union has been in existence since 31 December 1922. On 25 December 1991, the territory of Russia became the Russian Federation (Rossiyskaya Federatsiya).

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between female and male life expectancy is the highest in the world more than ten years, (6) of the 25 million Russians living in the other states of the former Soviet Union, less than 10% are expected to resettle in Russia in the near future, (7) the large volume of emigration of Russians expected a few years ago did not occur and is not expected to occur in the near future. International migration to the West mainly consists of Jews, Germans, and Armenians.

Keywords: population; Russia; USSR (former).

1 | Introduction

In order to understand the demography of Russia today, one needs to know its history and the diversity of its people. The age and sex composition of the population today is a consequence of its demographic history, which, in the 20th century, is characterized by periods of substantial population losses, due to war, social conflicts, and starvation. The ethnic composition and recent and current migration trends have their roots in migration and population redistribution policies determined decades ago.

The major sources of data are censuses and the population register. The first general census of the Russian Empire was organized in 1897 and was published in 89 volumes. The first census of the Soviet Union, established in 1922, was organized in 1926. Further census dates are 1937, 1939, 1959, 1970, 1979, and 1989. The censuses were organized by the Central Statistical Board (TsSU), which in 1987 was renamed the State Committee on Statistics (Goskomstat). In 1985, TsSU organized the first Socio-Demographic Sample Survey. The survey, which is also referred to as the micro-census, covered about 5% of the population (5% of the census enumeration areas). The next micro-census was organized in Russia in February 1994. Births, deaths, marriages, divorces, and other events related to the legal status of family members, such as adoption, recording of paternity, and name changes, are registered at the local civil authorities (ZAGS — Zapis' aktov grazhdanskogo sostoianiia [Registry of Acts of Civil Status][2]). The results of the 1937

[2] The ZAGS authorities also provide people with certificates of marriage, birth, etc. Most of the registration is completed in duplicate, with one copy maintained by ZAGS and another sent to the regional offices of the State Committee on Statistics. Deaths should be registered within three days. In Russia, births should be registered within one month. The length of time allowed for registration of births is different in other states of the

Census were rejected by Stalin which led to a new census in 1939. The 1937 census and the oppression and death of its organizers represent a dark period in the history of census-taking. The events surrounding the 1937 census were recently documented by Volkov (1992). Until the end of the 1950s, correct and complete population data were not available. This unavailability of demographic data is largely associated with Stalin. In 1934, the regular publication of population data was interrupted. After Stalin's death in 1953, a new census was debated in conferences held in 1954 and 1957. The 1959 Census initiates a new period in which demographic data are considered to be of acceptable quality and are published annually. Andreev, Darsky, and Khar'kova (1990, 1993) reconstructed the demographic history of the former Soviet Union between 1920 and 1959. For each year in that period, estimates are provided of population size, age structure, and age-specific rates of fertility and mortality. A major advance in the publication of demographic data was the publication in 1987 of the first demographic yearbook of the USSR (called *Population of the USSR, 1987*). It became an annual publication, the title of which was changed in 1989 to *Demographic Yearbook of the USSR*.

The subject of this paper is demographic trends in Russia (Russian Federation). Demographic data are not always available for Russia. In such cases, they are given for the USSR. Data for years before 1917 pertain to the European part of the Russian Empire. Sometimes the data is for Russians only (people with Russian nationality [*russkiye*]). Russians constitute about 82% of the population of Russia (*Rossiya*) and about 25 million Russians live outside Russia within the borders of the former USSR. The basic question whether a large-scale migration of Russians to the Russian Federation would take place occupied several analysists (see e.g. Harris, 1993a; Dunlop, 1993).

At the beginning of 1993, the de jure population of Russia was 148.3 million, about 51% of the population of the former USSR (State Committee of Russia on Statistics, 1994). Russia is the sixth largest country in the world in terms of population size (after China, India, USA, Indonesia, and Brazil). It is the largest country in terms of territory (17,075 thousand square kilometers), twice the size of either China or the United States. The population density

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former USSR. A more detailed description of the rules and operations of ZAGS can be found in Gracheva (1983). See also Anderson and Silver (1986). Problems of definition and registration were documented by Anderson and Silver (1986), Dmitrieva and Andreev (1987) and others (for a list of references, see Anderson and Silver, 1990, p. 196).

is low: 8.7 inhabitants per square kilometer. Most people live in the European part of the country. According to the 1989 census, minority ethnic groups comprise about 27 million people, i.e. 18.5% of the population of Russia. On the other hand, more than 25 million ethnic Russians (17.4% of the Russians) and four million persons of other indigenous nationalities of the Russian Federation live outside Russia in the territory of the former Soviet Union[3]. Most of the nationalities have deep historical roots and the distribution of nationalities is partly a consequence of policies in the past and, consequently, provides a basis for renewed migration and/or calls for territorial recognition.

As in other countries, the demographic parameters of Russia reflect a particular history and socio-economic system. In Russia, women marry early and have their first child soon after marriage. The mean age at first marriage is 21.8 years; that at birth of the first child is 22.9 years. Early marriage and early childbirth may be related to a combination of the housing situation and policies. For many years, abortion has been the main method of birth control. On average, a woman has two abortions per live birth. In 1991, 3.6 million official abortions were carried out (10% of all abortions in the world). About 250,000 of these were among women aged 15 to 19 (Mikhailov, 1992, p. 3).

This introduction is followed by a description of the trends in population size and structure. Sections 3 to 6 cover the components of demographic change and their determinants: mortality, nuptiality, fertility, and migration. Whenever statistical data allow, we look beyond the mere demographic indicators to identify the social factors that are associated with demographic changes.

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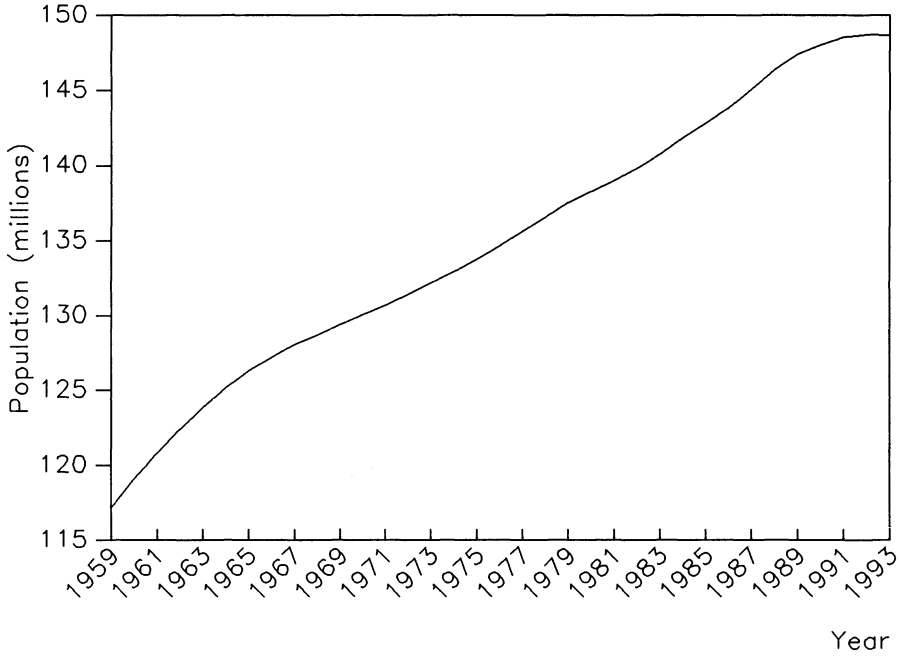
[3] Including Russians, roughly 54 million persons in the former USSR reside outside their ethnic homeland. According to the 1989 Census, about 43 million persons, belonging to one of the 15 union republic nationalities, lived outside the republic of their titular nationality. In addition, there were 8.4 million persons of autonomous republic nationality who lived outside their titular republic, and 2.1 million persons belonging to autonomous oblast or okrug nationalities who reside outside their titular regions (Heleniak, 1993, p. 46).

2 | Population size and composition

At the turn of the century, the population of the European part of the Russian Empire was about 70 million. The first general population census of 1897 records 67.5 million people and the 1926 census 92.7 million. The number of ethnic Russians at the turn of the century is estimated at 56 million (Andreev and Darsky, 1992, p. 3). In the 1890s, the government began to adopt a general policy of russification, and migration of Russians was part of that policy. Between 1897 and 1917, more than 2.5 million Russians migrated beyond the territory of today's Russia. The population of Russia in 1950 has been estimated at 101.4 million. The number increased to 119.0 million in 1960, to 130.1 million in 1970, and to 148.7 at the beginning of 1993. *Figure 1* shows the change in Russia's population size. In the 1970s, population growth slowed down significantly, due to the fertility decline which started at the end of the last century and continued steadily till the end of the 1960s and an increase in mortality which started in 1964.

Figure 1. Population of the Russian Federation, 1959-1993



Source: State Committee of Russia on Statistics (1994).

The demographic history of Russia is inscribed in the age structure of the population (*Figure 2*). The first losses were a result of events in 1914-1918: the First World War, 1917 Coup, Civil War, and starvation. According to some estimates (Volkov, 1930, pp. 54-60), the Russian Empire lost about five million persons during 1914-1918. They were killed, died from wounds, or stayed as prisoners of war. According to Urlanis (1963), the birth deficit during this period comprised 7.2 million. In the period following World War I (1918-1921), Russia lost 6.6 million people (Volkov, 1930, p. 188). This number includes those who were killed, died from wounds, or left the country (3.6 million people). The hunger of 1921 took about five million lives in the entire USSR (Maksudov, 1989) [Figure for Russia not available]. Another period of excess mortality was the early 1930s. People born during that period are now 55-60 years of age. Andreev, Darsky, and Khar'kova (1993, p. 44) estimate the death undercount in the USSR during the period from 1927 to 1937 at 12.6 million, the highest excess mortality being during the hunger of 1933[4]. Andreev, Darsky, and Khar'kova (1990, 1993) estimate that the direct loss of life during the famine 1932-33 was 8.5 million persons (mostly infant deaths), while another five million children were not born as a result of depressed fertility during that period, leading to a total population deficit of 13.5 million persons that may be attributed to the famine of 1933. The famine came in the last year of the first Five-Year Plan (1927-33) which was introduced by Stalin and emphasized industrialization and collectivization. The repression during the period 1937-39 caused 1.25 million *unregistered* deaths. The human losses related to World War II are estimated at 26.6 million people for the territory of the former USSR (Andreev, Darsky, and Khar'kova, 1993, p. 77), resulting in a very low number of people aged 45-50 in 1990.

An echo effect of World War II is the small cohort of women currently in their prime reproductive ages. By the end of 1992, there were two million (17%) women aged 20-29 less than in 1987. These women, who are the daughters of the women born during the war, are having markedly fewer children than their immediate seniors. The echo effect of this small birth cohort is the small number of people aged 20-25 in 1990, contributing to the decline in the number of births observed in the late 1980s. This small cohort is expected to affect the number of births until the year 2000.

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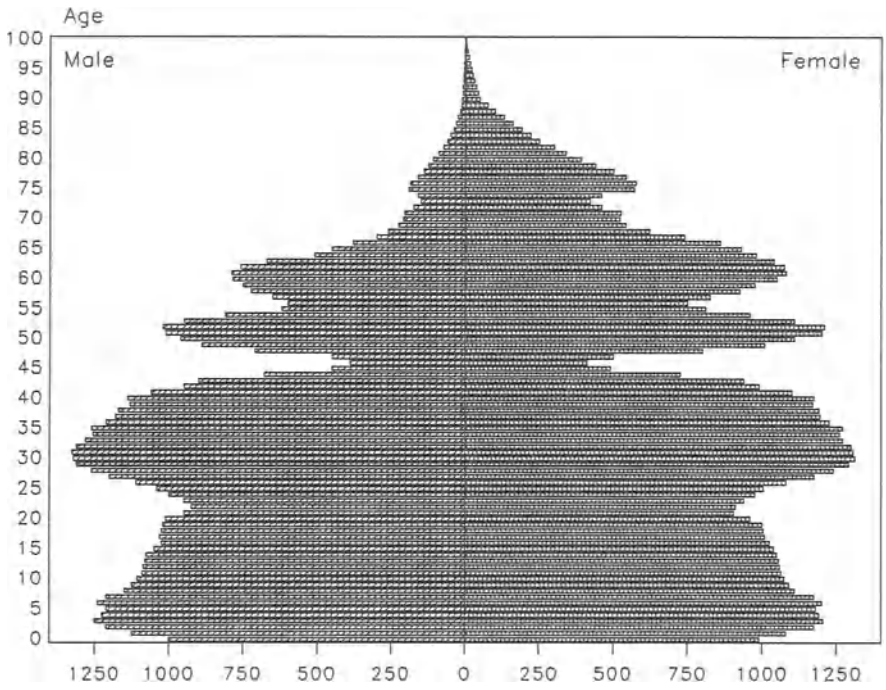
[4] The most comprehensive study on the population history of the former USSR has been conducted by Andreev *et al.* (1993). The authors attempt to estimate population size and birth and death rates for the period 1920 until 1959.

Figure 2. Mid-year population of Russia by age, 1990 (x 1,000)



The history of births and deaths in the period 1920-92 is shown in *Figure 3 and 4*. The data for 1920-1938 pertain to the USSR, those for 1960-1992 to Russia.

Since 1992, the number of deaths exceeds the number of births in Russia. In recent years, the migration of Russians from other states of the former USSR to Russia has become a significant factor in population growth. Reguent (1992, p.2) reports that, in 1989, immigration accounted for 33% of the population growth of Russia; in 1991, it had increased to 43%. The underlying factors are discussed below.

A total of 18.5% of the population of Russia is of non-Russian ethnicity, about 27 million people. The 1989 census lists more then 100 ethnic minorities in Russia and, at that time, the Russian Federation had 31 ethnic homelands, which are areas in Russia with a high concentration of ethnic minorities and some autonomy. The minorities that have their homeland in Russia include Tatars (5.5 million live in Russia), Chuvashy (1.77 million),

Figure 3. Number of births and deaths, USSR, 1920-1938

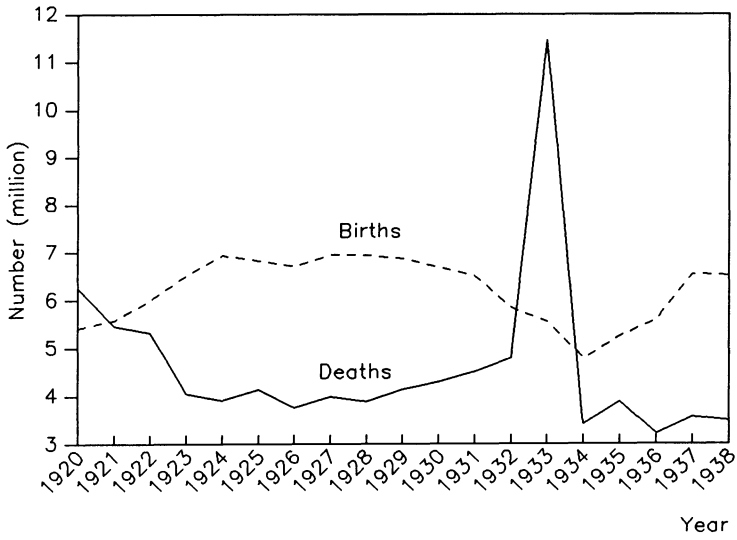
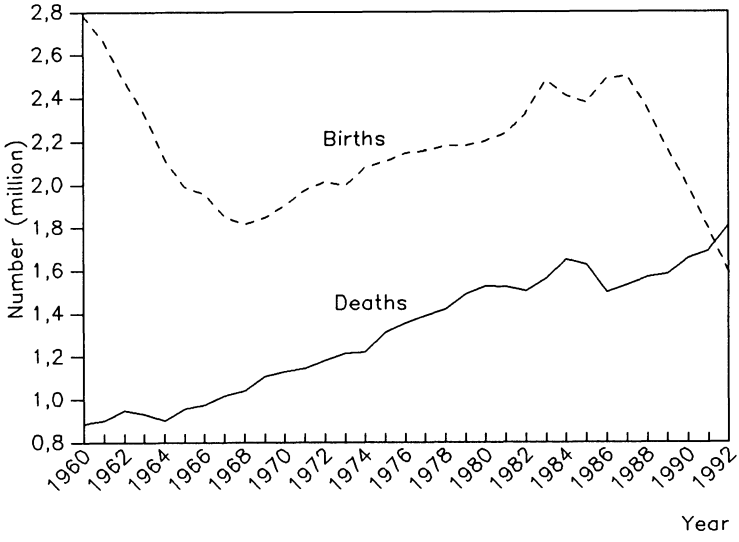


Figure 4. Number of births and deaths, Russia, 1960-1992



Bashkiry (1.34 million), Mordva (1.07 million), and Chechensy (899 thousand). The ethnic minority population of Russia includes the titular population of the other 14 former republics: 4.36 million Ukrainians, 1.2 million Belorussians, 636 thousand Kazakhs, and 532 thousand Armenians.

In addition, 537 thousand Jews and 842 thousand Germans were living in Russia at the time of the 1989 Census.

Most people in Russia live in families. According to the 1989 census, 88.4% of the population lives in 40.2 million families. The remaining 11.6% lives in one-person households. About 23.5 million families have children under 18 years of age. More than half of the families (58%) consist of three persons. One-parent families are quite common (15.4% of all families) (State Committee of Russia on Statistics, 1992). About 80% of the one-parent families are lone mothers with children (close to 1.5 million families, most with one child); about 7% are lone fathers with children (Soroko, 1992, p. 6). The remaining one-parent families have at least one grandparent. The large proportion of one-parent families may in part be attributed to the large proportion of persons living away from their family.

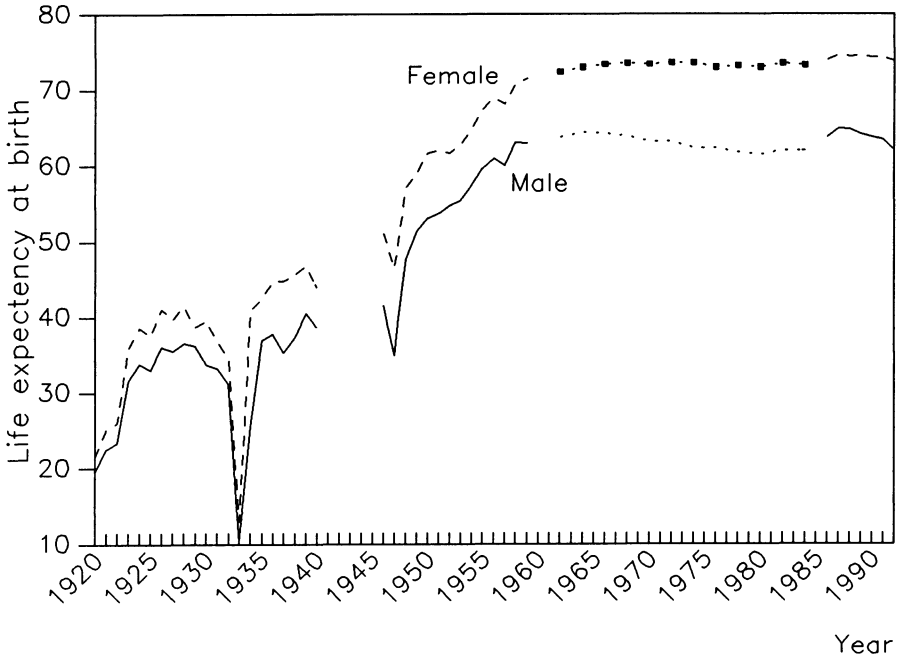
3 | Mortality

3.1. Introduction

Data on the history of mortality in Russia are scarce. Therefore, some historical data on the USSR will be considered first. The first available data refer to life expectancy of the European part of the Russian Empire in 1896-1897: 31.4 years for males and 33.4 for females. From the same source we have data on life expectancy for the European part of Russia in 1926-1927: 40.2 and 45.6 years for males and females, respectively. Life expectancy from 1920 to 1958 was estimated by Andreev, Darsky, and Khar'kova (1993, p. 135) for the USSR. In 1920, it was 19.5 for males and 21.5 for females, and in 1933, due to the great famine, it reached an all-time low of 10.3 years for males and 13.0 years for females. In 1933, the infant mortality rate was 317 per thousand and the crude death rate was 71.6 per thousand. More than 11 million people are estimated to have died during that year. At the beginning of World War II (1939), life expectancy was about 40.5 for males and 46.8 for females. Life expectancy in the post war period steadily increased in the USSR up to the middle of the 1960s (*Figure 5*), when a negative tendency in mortality became visible.

Data on life expectancy in Russia start in 1958-59 (see State Committee of Russia on Statistics, 1994). In 1958-59, life expectancy was 63.0 for males and 71.5 for females (State Committee of Russia, 1992). Life expectancy for males in Russia reached a maximum of 64.4 years in 1964-65 and for

Figure 5. Life expectancy at birth USSR (1920-40, 1946-58) and Russia (1959-92)



females it was around 73.6 years in 1971-74. Life expectancy of males declined in the second half of the 1960s and the 1970s to 61.5 years in 1979-80. In the early 1980s, life expectancy recovered. The mortality decline is due to a decline in deaths caused by diseases of the respiratory system (both sexes) and accidents (males). In 1986-87, it reached a new maximum of 64.9 years for males and 74.6 years for females[5].

The period after 1985 was characterized by a substantial increase in life expectancy. Between 1985 and 1987, male life expectancy increased by 3.2 years and female life expectancy by 1.3 years, most of the increase being due to a decline in accidents (2.6 years for males and 1.1 years for females; Andreev, Scherbov, and Willekens, 1993). Since 1987, however, life expectancy declined again. In 1991, the life expectancy of men was two years

[5] The discontinuities in mortality in 1964 and 1980 may, in part at least, be attributed to statistical artifacts (Anderson and Silver, 1990, p. 207).

less than in 1986-87, and that of women one year. The most recent figures (1991) show a life expectancy of 63.7 for males and 74.3 for females. In the past 20 years, males gained 0.6 years of life and females one full year[6].

Today, mortality in Russia and the other states of the former USSR lags behind the levels in other industrialized countries. Andreev (1992) compared cause-specific mortality in Russia (and other states of the former USSR) with the mortality structure in the Federal Republic of Germany, France, Japan, the United Kingdom, and the USA combined. In 1989, male life expectancy in Russia was 7.5 years below the average of these five countries. More than half (52%) of the difference can be attributed to endogenous diseases, 37% to accidents, and 11% to exogenous diseases[7]. For females, the difference is 4.7 years, 83% due to endogenous diseases, 12% to accidents, and the remaining 5% to exogenous diseases. A comparison using 1986 data is given by Andreev (1994, p. 291). The analysis of mortality trends must take into account changes in registration and procedures used to construct life tables. Anderson and Silver (1990), Ksenofontova (1994), and others studied the degree to which changes in underreporting of death may affect the reported mortality trend. For a brief discussion of the issues, see Willekens and Scherbov (1994).

3.2. Mortality by cause

The reasons for the mortality increase since the middle of the 1960s were an increase in mortality from cardiovascular diseases at younger ages, persistent high mortality from infectious and respiratory diseases during childhood, and a considerable increase in the number of deaths related to poisoning, accidents, and injuries.

The mortality change in the 1980s by major cause of death is documented in *Table 1*. In 1980, 48% of male deaths and 70% of female deaths were

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6 Mortality at old age (above 70, say) seems to be underestimated, especially in the life tables constructed before the 1980s, and the error was greater in earlier life tables and in the Central Asian republics. Improvements in mortality registration at old age means that improvements in life expectancy were better than indicated by the official figures (see e.g. Dimitrieva and Andreev, 1987; Anderson and Silver, 1990, p. 215).

7 The share of accidents is highest in Lithuania: 51% of the difference in life expectancy is attributed to accidents. Exogenous diseases are infections, respiratory diseases, and digestive diseases. Endogenous diseases are all causes of death that are not included in the two other categories. They are mostly malformations and circulatory system diseases.

Table 1. Life table probabilities of eventually dying from a given cause by sex, Russia, 1980-1990

	Males			Females		
Cause of death	1980	1985	1990	1980	1985	1990
Infectious and parasitic diseases	0.022	0.018	0.013	0.008	0.007	0.004
Neoplasms	0.157	0.172	0.191	0.122	0.124	0.136
Diseases of circulatory system	0.479	0.502	0.499	0.696	0.710	0.687
Respiratory diseases	0.098	0.087	0.070	0.070	0.055	0.041
Accidents, poisonings, and violence	0.174	0.145	0.144	0.052	0.048	0.046
Other and unknown causes	0.040	0.047	0.057	0.032	0.035	0.064
All causes	1.000	1.000	1.000	1.000	1.000	1.000

caused by cardiovascular diseases. The category 'accidents, poisoning, and violence' was the second cause of death for males (17% of all deaths in 1980), immediately followed by neoplasms (16%). The second cause of death for females was neoplasms (12%). The recovery of mortality in the early eighties was due to a certain positive influence of respiratory diseases (both sexes) and accidents (males) on mortality dynamics.

The share of accidents, poisoning, and violence in male mortality decreased to a minimum of 11% in 1986-87, but it increased again to more than 14% in 1990. In the 1980s, the share of mortality due to cardio-vascular diseases increased for males from 48% in 1980 to 50% in 1990, and remained stable for females (around 70%). Neoplasms as a cause of death increased in the 1980s from 16 to 19% for males and 12 to 14% for females.

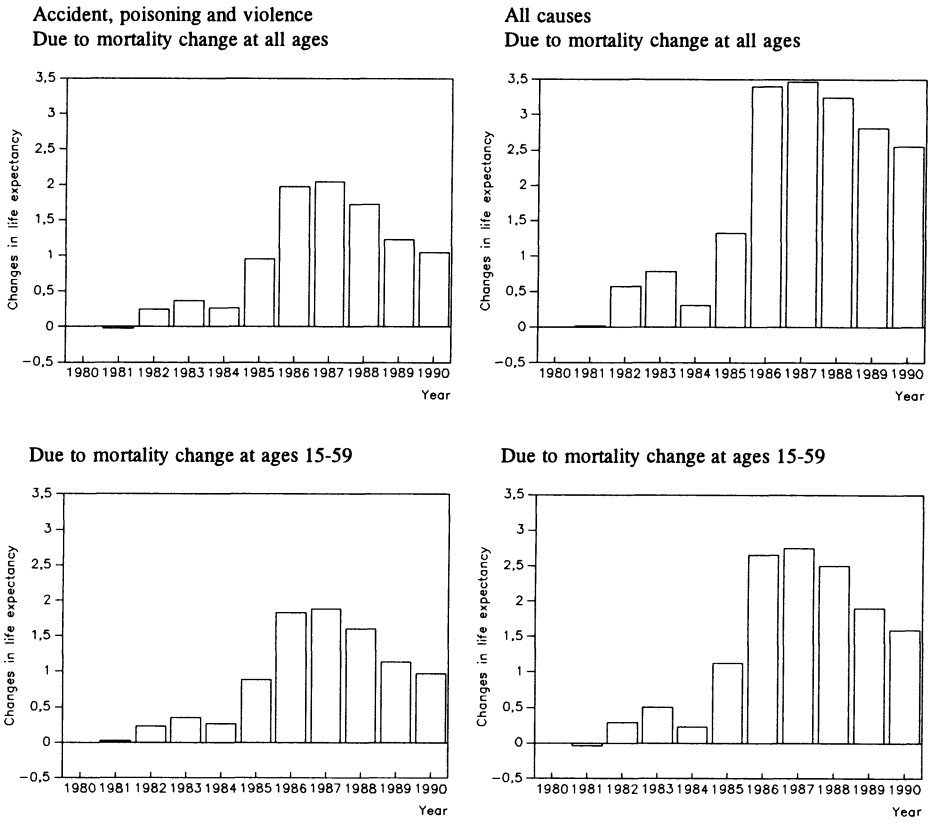
In order to assess the contributions of various causes of death to a change in life expectancy, we applied Andreev's component method[8] to data *for the USSR* for three time intervals. For a description of the method, see Andreev (1982, 1990). *Table 2* and *Figure 6* show the results. The decompo-

[8] Andreev's method is similar to the Pollard (1982) method. The authors developed the methods independently. The method was recently also applied to USSR data by Meslé *et al.* (1992).

Table 2. Contribution of major causes of death to changes in life expectancy, Males, Russia, 1980-1990

	Total	0-14	15-59	60+
First population: Year 1980 Second population: Year 1984				
All causes	0.314	0.148	0.234	-0.068
Infectious and parasitic diseases	0.070	0.022	0.028	0.021
Neoplasms	-0.074	-0.001	-0.029	-0.044
Diseases of circulatory system	-0.108	0.001	-0.021	-0.088
Respiratory diseases	0.312	0.206	0.042	0.064
Digestive system diseases	0.022	0.020	0.007	-0.005
Accidents, poisonings, and violence	0.265	0.000	0.267*	-0.002
Other and unknown causes	-0.172	-0.099	-0.060	-0.013
First population: Year 1984 Second population: Year 1987				
All causes	3.153	0.180	2.517	0.455
Infectious and parasitic diseases	0.155	0.076	0.066	0.013
Neoplasms	-0.056	0.003	0.008	-0.067
Diseases of circulatory system	0.642	0.000	0.350	0.292
Respiratory diseases	0.503	0.191	0.210	0.102
Digestive system diseases	0.144	0.012	0.126	0.006
Accidents, poisonings, and violence	1.778	0.056	1.616	0.106
Other and unknown causes	-0.015	-0.158	0.141	0.003
First population: Year 1987 Second population: Year 1990				
All causes	-0.909	0.206	-1.159	0.045
Infectious and parasitic diseases	0.049	0.051	-0.007	0.004
Neoplasms	-0.009	0.005	-0.007	-0.008
Diseases of circulatory system	-0.004	0.001	-0.147	0.143
Respiratory diseases	0.096	0.101	-0.005	0.001
Digestive system diseases	-0.004	0.002	-0.016	0.009
Accidents, poisonings, and violence	-0.998	-0.027	-0.917	-0.055
Other and unknown causes	-0.038	0.072	-0.061	-0.050

Figure 6. Contribution of accidents, poisoning, and violence to changes in life expectancy of males in the 1980s, Russia



sition allocates the change during the 1980s in the number of years lived to changes in major causes of death. Seven causes of death are distinguished. Consider the decomposition of the changes in male mortality between 1980 and 1984. The total observed increase in life expectancy between 1980 and 1984 was 0.314 years for males. The change is a result of a decline in some causes of death and an increase in other causes. Mortality from diseases of the respiratory system (mostly at younger ages) and accidents, poisoning, and injuries declined between 1980 and 1984, and that decline would result in an increase of the life expectancy by about 0.6 years, 0.312 years attributable to a declining mortality from diseases of the respiratory system and 0.265 years attributable to a decline in accidents, injuries, and poisoning.

But the relative increase in mortality from cardiovascular diseases and the category 'other and unknown causes' (many chronic diseases as well as birth anomalies etc. fall into this category) during the period 1980-84 resulted in an average number of years lost of about 0.3 years. Most of the gain in life expectancy at adult ages (15-59) in the 1980s is due to a decline in accidents, injuries, and poisoning (Figure 6). The total gain in life expectancy since 1980 of persons aged 15 to 59 reached a maximum in 1987, namely 2.75 years; about 68% (1.88 years) can be attributed to the decline in accidents, injuries, and poisoning.

Between 1984 and 1987, life expectancy increased by 3.2 years for males. The major part of this increase was due to a reduction in accident mortality, concentrated in adult ages (mostly 15-59). The number of male deaths due to accidents, injuries, and poisoning declined from 14.5% in 1985 to 11.1% in 1986 and to 10.9% in 1987. This decline accounts for more than 56% of male life expectancy growth (1.8 years). The decline may in part be attributed to the declining alcohol consumption (see below). Month-by-month analysis of the dynamics of accident death rates proves that the above-mentioned mortality decline was the immediate result of drastic measures taken in May 1985 against alcohol consumption in the USSR. Mortality at younger ages remained practically unchanged. Another factor of mortality decline in the period 1984-87 is the decline in mortality from cardiovascular diseases, predominantly after age 50. It accounts for 20% of the male life expectancy increase. The decline in mortality from cardiovascular diseases has been a major factor in the mortality decline of women. Between 1984 and 1987, life expectancy for females increased by 1.3 years; 34% of this increase resulted from a decline in mortality due to accidents, injuries, and poisoning, and 38% from a decline in mortality from cardiovascular diseases.

Mortality again started to change for the worse after 1987. Mortality from accidents increased everywhere, exogenous mortality decrease slowed down. We can assume that the increase in Russia's mortality in the years 1987-1990 was significantly connected with the economic crisis and the relaxation of the anti-alcohol campaign.

A peculiar feature of mortality in Russia is the difference between female and male life expectancy, which was 11.6 years for Russia in 1980 and 10.5 years in 1990. In 1990, male life expectancy was 63.9 years compared to 74.4 years for females. The difference is probably the largest in the world. Excess male mortality may be attributed to external causes of death (accidents, poisoning, and violence). In 1990, external causes accounted for

25% of all male deaths and are on the increase (11% for females). Male deaths from accidents, poisoning, and violence have been associated with the consumption of vodka and surrogates. In 1990, accidents, injuries, and violence accounted for 14.4% of all male deaths. The State Committee of Russia on Statistics (1992, p. 282) reports that, in 1991, 2.6 million persons (males and females) were registered for alcohol and drug abuse, more than half of the 5.1 million psychiatric patients[9]. Between 1986-87 and 1991, alcohol poisoning increased by 8% and murder by 26% (Mikhailov, 1992, p. 4). In Moscow, the main cause of male deaths in the able-bodied age is traumatism and intoxications, 70-80% due to alcohol consumption (Dmitriev, 1992, p. 5)[10].

Statistics on violence cover important figures on suicides and homicides. The Demographic Yearbook of the USSR 1990 reports numbers of deaths by detailed causes of death. In 1989, 29,462 males and 8,555 females committed suicide, and 13,937 males and 4,590 females were killed by others. In that year, more people died from homicide than from infections and parasitic disease (13,921), and the number of suicides is about the same as the number of people who died from stomach cancer (29,494).

In order to assess the contribution of the various causes of death to the difference in male and female life expectancy, the difference has been decomposed. The results are shown in *Table 3*. In 1990, accidents, poisoning, and violence accounted for a difference between male and female mortality of 3.6 years, which is 34% of the total difference of 10.6 years. Cardiovascular diseases account for another 3.3 years, or 31% of the total difference. In 1980, the contribution of accidents, poisoning, and violence was even larger, 4.4 years or 38% of the total difference of 11.6 years. The decline in the difference between male and female life expectancy during the 1980s is entirely attributable to the decline in accidents, poisoning, and violence, and diseases of the respiratory system. The change in neoplasms had an increasing effect on the difference.

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9 Since the production capacity of alcohol in Russia is inadequate, Western countries are supplying the alcohol. In 1992, Belgium exported, through German traders, pure alcohol (over 80 degrees) to Russia for about 27 million US dollars, up from 2 million US dollars in 1991 (Het Nieuwsblad, 4-5 December 1993). Pure Belgian alcohol is being advertised at many places in Moscow.

10 In Russia, alcohol consumption through official outlets fell from 11.2 litres per person in 1984 to 4.8 litres in 1988. In 1989, it increased again to 5.8 litres (Tarschys, 1993, p. 22).

Table 3. Components of male-female life expectancy differences by age group and causes of death, Russia, 1980 and 1990

	Total	0-14	15-59	60+
First population: Year 1980, Female Second population: Year 1980, Male				
All causes	-11.579	-0.703	-7.243	-3.634
Infectious and parasitic diseases	-0.399	-0.053	-0.262	-0.083
Neoplasms	-1.425	-0.015	-0.589	-0.822
Diseases of circulatory system	-3.284	-0.002	-1.591	-1.691
Respiratory diseases	-1.190	-0.181	-0.452	-0.557
Digestive system diseases	-0.393	-0.016	-0.258	-0.119
Accidents, poisonings, and violence	-4.401	-0.198	-3.929	-0.274
Other and unknown causes	-0.488	-0.238	-0.163	-0.088
First population: Year 1987, Female Second population: Year 1987, Male				
All causes	-9.453	-0.680	-5.178	-3.594
Infectious and parasitic diseases	-0.275	-0.039	-0.188	-0.048
Neoplasms	-1.770	-0.015	-0.696	-1.058
Diseases of circulatory system	-3.137	0.002	-1.502	-1.637
Respiratory diseases	-0.796	-0.083	-0.244	-0.47
Digestive system diseases	-0.277	-0.004	-0.154	-0.118
Accidents, poisonings, and violence	-2.649	-0.192	-2.286	-0.171
Other and unknown causes	-0.549	-0.349	-0.109	-0.091
First population: Year 1990, Female Second population: Year 1990, Male				
All causes	-10.554	-0.617	-6.267	-3.67
Infectious and parasitic diseases	-0.260	-0.019	-0.196	-0.045
Neoplasms	-1.776	-0.011	-0.693	-1.072
Diseases of circulatory system	-3.274	-0.001	-1.648	-1.625
Respiratory diseases	-0.787	-0.055	-0.244	-0.488
Digestive system diseases	-0.275	-0.005	-0.164	-0.106
Accidents, poisonings, and violence	-3.621	-0.212	-3.161	-0.248
Other and unknown causes	-0.562	-0.313	-0.162	-0.087

Most of the difference in life expectancy between males and females is due to different levels of *adult* mortality (ages 15-59), about 60%. Accidents, poisoning, and violence are particularly important contributing factors in this age category. In 1990, they accounted for more than half of the difference in adult mortality. The difference above age 60 can mainly be attributed to cardiovascular diseases.

Trends in mortality dynamics by cause of death in Russia may seem regular if compared to world trends in mortality and the trends anticipated by the theory of epidemiological transition. Thus, despite the mortality increase from neoplasms, its level in many regions remains lower than in developed countries, this in contrast to mortality from cardiovascular diseases. Mortality from the numerous chronic diseases that are included in the group 'Other and unknown causes' seems to be unrealistically low. Andreev (1987, 1990) attributes it to the poor level of differential diagnostics and the unjustified transfer of deaths from rare chronic causes to deaths from cardiovascular diseases. Mortality from infectious diseases, diseases of the digestive system, and especially respiratory diseases decreased in most regions, in full agreement with the theory of epidemiological transition.

3.3. Infant mortality

The recorded infant mortality rate (IMR) in Russia is 17.4 per thousand live births, 20.0 per thousand for males and 14.7 per thousand for females (1990)[11]. It is 10 in the USA and 7 in the Netherlands. The IMR declined relatively rapidly in the 1960s (from 36.6 per thousand in 1960 to 23.0 per thousand in 1970) and only slightly since the early 1970s (22.1 in 1980 and 17.4 in 1990) (*Figure 7*). Changes in the health status of the Russian population, relative to that of other countries, may be illustrated with infant mortality. In 1968, the IMR in Russia was about the same as in the USA (Anderson and Silver, 1990, p. 225), in 1970 it was 15% higher, and today it is 78% higher (Dmitriev, 1992, p. 6). Referring to the USSR, Anderson and Silver conclude that, although the reported IMR in 1989 is about the same as the reported rate in 1971, the *actual* IMR in 1989 was probably much lower than the *actual* rate in 1971. The IMR increase (USSR) between 1971 and 1976 (24% in urban areas and 56% in rural areas) 'was almost entirely a statistical artifact'.

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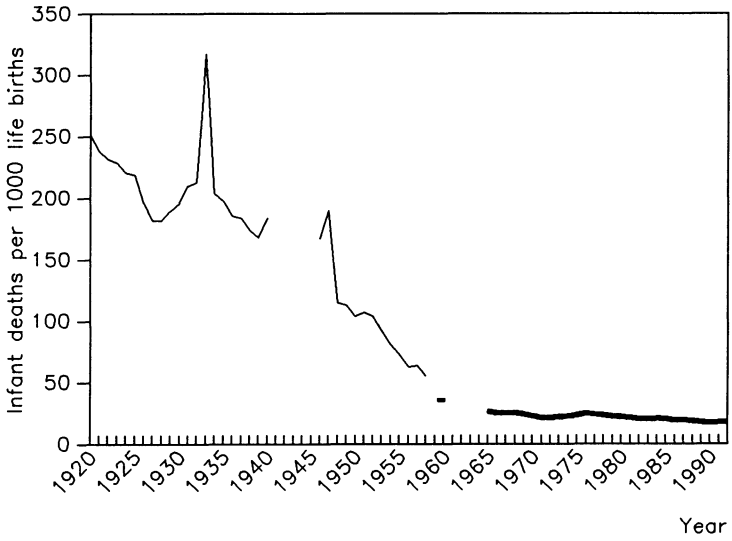
[11] On 1 January 1993, Russia adopted the WHO definition of infant mortality. This change in definition may result in an increase of the figure by up to 30% (from 18 per thousand to 25 per thousand).

Figure 7. Infant mortality USSR (1920-1958) and Russia (1959-1992)



The negative tendencies in the health of children deserve special attention. The health of children is deteriorating (Dmitriev, 1992, p. 7). A significant observation is the increase in neonatal mortality from 9.2 per thousand live births in 1980 to 11.1 in 1990. Dmitriev relates the increase to deteriorating health of delivering women. Other authors attribute at least part of the increase to better registration of neonatal deaths (see above; and Anderson and Silver, 1990, p. 219 and Ksenofontova, 1994). The rates are much higher in urban than in rural areas, although the rates in rural areas have been increasing faster. Some further data on the health of children are given by Rimashevskaya (1992). The proportion of babies that are born prematurely increased by almost 20% between 1985 and 1990 (from 4.1% of the newborn babies to 4.9%). About 30% of the babies are discharged from the maternity hospitals with serious neuralgic disorders. The number of retarded children and children with inherited mental disorders is growing. In 1991, the Ministry of Health estimated that a total of 1.1 million children below age 14 and 350 thousand teenagers below age 18 suffer from heavy neuroses and mental illnesses. Part of the deteriorating health of children is attributed to the declining health of mothers, which is related to their nutritional status, housing situation (particularly the housing situation during the mother's childhood), and environmental conditions.

The state of the environment in Russia is regularly receiving attention in the media. Its impact on the health status of the population is less well-documented. According to Rimashevskaya, 25% of the decline in health in Russia is due to environmental degradation. She reports that, in 103 cities in Russia, the Maximum Permissible Concentration (MPC) of elements injurious to health are exceeded by a factor of ten. The 1992 White Book on the state of public health, one of a series of reports published annually on major problems in contemporary Russia, contains more data. Bond (1993) reviews the main findings of the report, as published in the Russian press. It states that 50 million persons in Russia (about one third of the population) live in areas where the MPC for one or more major pollutants is exceeded at least once annually, and 60 million (roughly 40% of the population) reside at locations where air pollution levels exceed the MPC five times for one or more substances at least once annually. Most polluted are areas with industry focused on petroleum refining, ferrous and nonferrous metallurgy, chemicals, and pulp-paper production. The most polluted areas are the lower Volga, North Caucasus, and Ural and some other regions, about 15% of Russia's land area. Bond (1993, p. 77) identifies eight regions as locations where the ecological condition can be considered critical. In addition, the White Book reports only 12% of water bodies tested in Russia as clean (pollution concentrations at background levels), 32% as 'under stress' (moderately polluted), and 56% as heavily polluted (subject to a noticeable deterioration).

The main victims of environmental degradation are the children, because of the less developed state of their immune systems. In Russia,the leading ailments among children in 1991 were not the common ones found elsewhere in the developed world (i.e. childhood diseases such as mumps, measles, and chicken pox). Rather, childhood diseases ranked third after respiratory ailments and nervous disorders (Bond, 1993, p. 75).

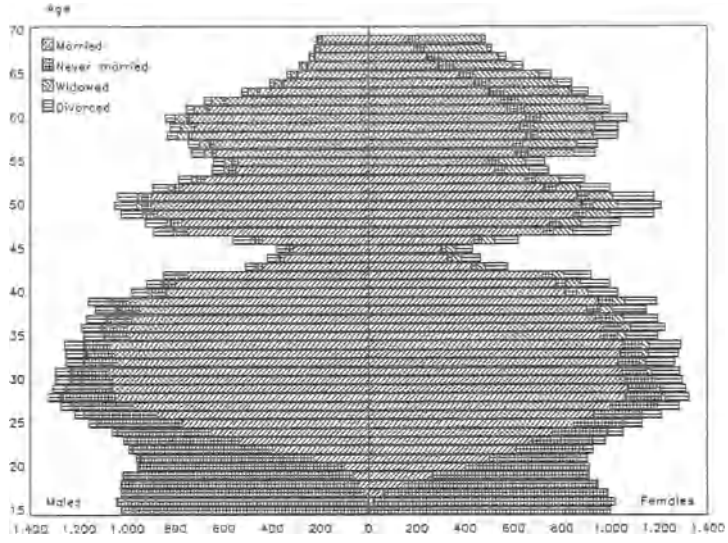
4 | Marriage and divorce

In 1991, about 1.3 million couples married. Traditionally, most women in Russia marry and they marry early. During some periods in the history of the country, many women were unable to marry or had to delay marriage due to social cataclysms. The proportion of never-married women aged 50-59 in the 1897 census was 4.8%. According to the 1979 census, the proportion of women never married in the age group 50-54 was 5.3%; it was 3.3% in 1989. The 1989 Census shows higher proportions of never-married women

at older ages (see *Figure 8*). This is the consequence of a marriage squeeze. Male mortality was considerably higher during the second world war than female mortality, resulting in a lack of males of marriageable age. For example, the generation born in the period 1916-25 experienced tremendous human losses during the war, which resulted in a very low level of final celibacy among men and a very high level among women. According to the 1985 Socio-Demographic Sample Survey, 7.1% of the Soviet women born in 1920-1924 never married, while the figure was only 1.1% for men (Darsky and Ilyina, 1990)[12]. (These data are for the USSR; data for Russia not available).

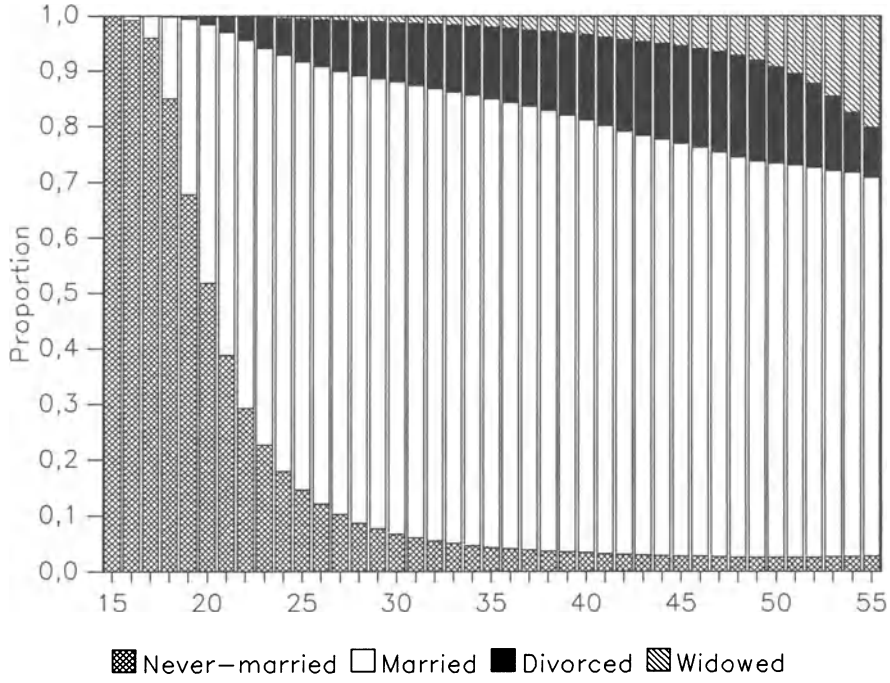
Life table calculations allow the smoothing out of irregularities caused by calamities. The life table (stationary) population that is associated with the observed rates of marital change in 1989 is shown in *Figure 9*. For a discussion and further results, see Willekens and Scherbov (1994).

Figure 8. Population of Russia by sex and marital status, 1989 (x 1,000)



[12] This is the generation that had the highest male losses during the second world war. After the war, there were 65 males per 100 females in this cohort. At the 1979 census, 6% of the women in this cohort had still never married (Ilyina, 1992, p. 6). The generations born between 1911 and 1930 were most affected by the war.

Figure 9. Life table population by marital status, Russia, females, 1989



The mean age at first marriage has always been low in Russia. In 1989, it was 21.8 years. Life table calculations, using data of 1980-84, show that the proportion of females married at age 20 is 27.6%; at age 25 this is 79.1%[13] (Ilyina, 1992, p. 13). The proportion married at age 20 is highest among females with incomplete secondary education (37.7%) and general secondary education (29.6%). The rural-urban difference in age at first marriage is substantial. In rural areas of Russia, Ukraine, and Belorussia, 39.3% of the females are married at age 20 and 87.4% are married at age 25. In cities of over 100,000 inhabitants, the proportion married at age 20 is 20.5% and 72.3% at age 25 (Ilyina, 1992, p. 16). The proportion married at age 20 is increasing among younger cohorts. The 1985 Socio-Demographic Sample Survey revealed that, *in the Soviet Union*, about 19% of the females born in 1930-34 married before the age of 20; this increased to 30% for females born in 1940-44 and increased further to 32% for the 1950-54 birth

[13] Russia, Ukraine, and Belorussia combined.

cohort and to 34% for the 1960-64 cohort (see also Volkov, 1994, p. 151). There are large regional variations in age at marriage. Volkov (1994, p. 151) reports that the proportion of women born between 1937 and 1941, and experiencing their first marriage by age 20, varied from 14.4% in the Estonian population to 55.4% in the Kirghiz population. Age at marriage decreased among Estonian women and increased among Kirghiz women. The proportion of the 1957-61 birth cohort married by age 20 was 22.0 and 33.9%, respectively. Housing shortages, prejudices against cohabitation and modern contraceptives, inadequate sexual education, and lack of effective contraceptives are the main reasons for early marriage (Willekens and Scherbov, 1994, p. 186). Darsky and Ilyina (1988) assert that, in recent years, the tendency towards a younger age at marriage has stopped.

Marriage dissolution due to death of the spouse declined considerably at younger ages because of mortality decline. Using life table techniques, Darsky (quoted in Vishnevsky and Tolts, 1988, p. 83) estimated that, at the end of the 19th century (1897), more than 25% of the females of European Russia experienced the death of their husband at least once before age 50. Assuming that females married at age 20 and that the husband was five years older, and assuming the mortality level of the period, and using life table techniques, Vishnevsky and Tolts (1988, p. 83) determined that in Russia, in 1896-1897, 50.1% of marriages were preserved by the end of the procreative period, in 1958-1959, 78%, and in 1984-1985, 73.8%.

Divorces were very exceptional in pre-industrial Russia. The Orthodox Church and legislation did not permit divorces. Marriage was expected to last a lifetime. In 1913, the divorce rate among the orthodox population of the Russian Empire was about 0.15 divorces per 1000 married couples. In the *USSR*, the divorce rate increased from 4.8 per thousand in 1938-1939, to 5.3 in 1958-1959, to 15.2 in 1978-1979, and to 16.0 in 1989. In 1990, more than half a million (560,000) divorces were registered *in Russia*. In 1991, this had increased to 598,000 (compared to 1.3 million marriages in that year) and to 631,000 in 1992. Life table calculations, based on 1989 data, show that, in Russia, the probability that a marriage ends in a divorce is about 36% (Darsky and Scherbov, 1993, p. 19). The probability is somewhat lower than in Latvia and Estonia, but is higher than in the other states of the former USSR. Many couples separate because the women feel that they are treated unfairly. They have to shoulder the burden of shopping, cooking, and childcare, despite the fact that most hold jobs outside the home.

Most Russian men do not share responsibilities in the home[14]. Couples are frequently ill-prepared for marriage, which is related to the low age at marriage. A contributing factor is the absence of a social stigma attached to divorce and the ease with which couples can divorce.

The level of cohabitation is difficult to trace because such a question was never asked during the census. The question on unregistered marriages (cohabitation) was be asked for the first time in a micro-census of 1994. One indication of unregistered marriages is the proportion of children born out of wedlock, but registered by mutual statement of mother and father. In 1991, about 16% of the children born in Russia were born out of wedlock, and 41% of them were registered by mutual statement of mother and father (Vishnevsky and Zakharov, 1993). This issue is further discussed in Section 5 on fertility.

5 | Fertility

5.1. Fertility trends

Fertility started to decline in Russia almost 100 years ago (Belova *et al.*, 1988; Coale *et al.*, 1979). The main characteristics of the demographic transition in Russia have been summarized by Zakharov (1994, p. 117):

a. Late start of the transition compared with European countries. In Russia, the demographic transition began in the late 19th and early 20th century.
b. Transition completed by the mid-1960s. The duration was less than 70 years, from the late 19th century to the mid-1960s, when the total fertility rate (TFR) reached a level of 2.2 and the infant mortality rate (IMR) reached 25.
c. A practically simultaneous start of an irreversible decline in mortality and fertility (not an exception in Europe but in Third World countries).
d. The absence of a pronounced population explosion due to (c) and a series of social cataclysms.

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[14] The high levels of female labour force participation and divorce do not indicate high levels of autonomy. Russian women work because the family needs the income. The status of Russian women did not increase with Perestroika (Buckley, 1992). Although most women have paid jobs, it is not a free choice. When asked 'If your husband would be given a substantial pay rise, would you continue to work?', only 20% of female white-collar workers and 26% of blue-collar workers would retain their job. Most would look for another job or work part-time (Rimashevskaya, 1994, p. 267).

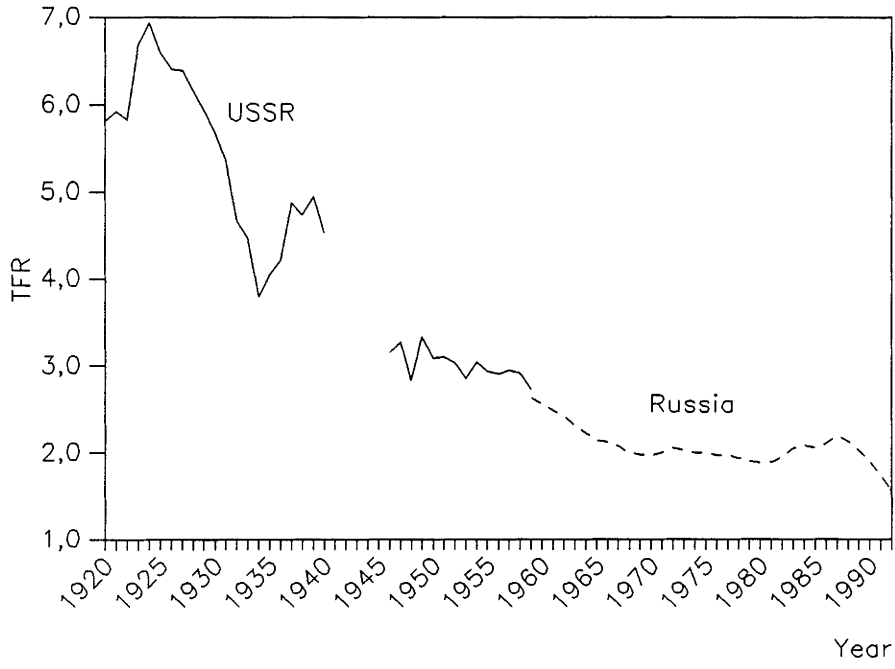
e. The sequence of wars, revolutions, and other discontinuities that shook Russia during the 20th century played a significant role in the demographic transition. World War I caused a considerable drop in the size of the cohorts born in 1914-24. The famine in the early 1930s, with a peak in 1933, was followed by a considerable decrease in the number of births. World War II decreased the fertility level by more than half (see Andreev *et al.*, 1994, p. 423).

According to different sources, women in the Russian Empire, born in the period 1850-1860, did not practice birth control and they had seven children on average (TFR). Birth control started to prevail among women born after 1870. The female generations born between 1890 and 1930 had their fertility considerably distorted due to historical events like the First World War, 1917 Coup, the civil war, hunger in the 1930s, and the Second World War. At the end of the 1920s, fertility started to decline faster. The reconstruction of the demographic history of the USSR by Andreev, Darsky, and Khar'kova (1993) shows that, in 1924, the TFR *of the USSR* reached a peak of 6.9 children per woman. In the early 1930s, the TFR declined sharply due to the famine and reached a minimum of 3.8 in 1934. In 1937, the TFR was high again at 4.9, but declined steadily afterwards to reach 2.7 in 1959 (*Figure 10*). Note that abortions, the dominant method of birth control, were legalized in the 1920s and forbidden in 1936 (see Section 5.2). The sharp fertility decline during World War II was only partly compensated by a fertility increase starting in the mid-1950s. Not all postponed births were realized, however.

Reliable fertility data for Russia have been available since 1959. At the end of the 1950s, the TFR of Russia was slightly less than that of the USSR, about 2.6. The TFR started to decline sharply in 1959 until the late sixties, when it stabilized and oscillated at a level of about two. The increase in the few years following 1968 may be attributed to the Code on Marriage and Family of 1968, which reduced the stigma of registering non-marital[15] children. Until 1968, the birth certificate obtained from ZAGS following the registration of the newborn baby, listed the names of both parents if they were legally married. If the parents were not legally married, then the space for the father's name was supposed to be left blank, which often stigmatized

[15] The term 'illegitimate children' is not used in Russian and Soviet demography, as it is perceived as an expression of social disparity of children (Bondarskaya, 1992, p. 64).

Figure 10. Total fertility rates, USSR (1920-40, 1946-59) and Russia (1959-92)



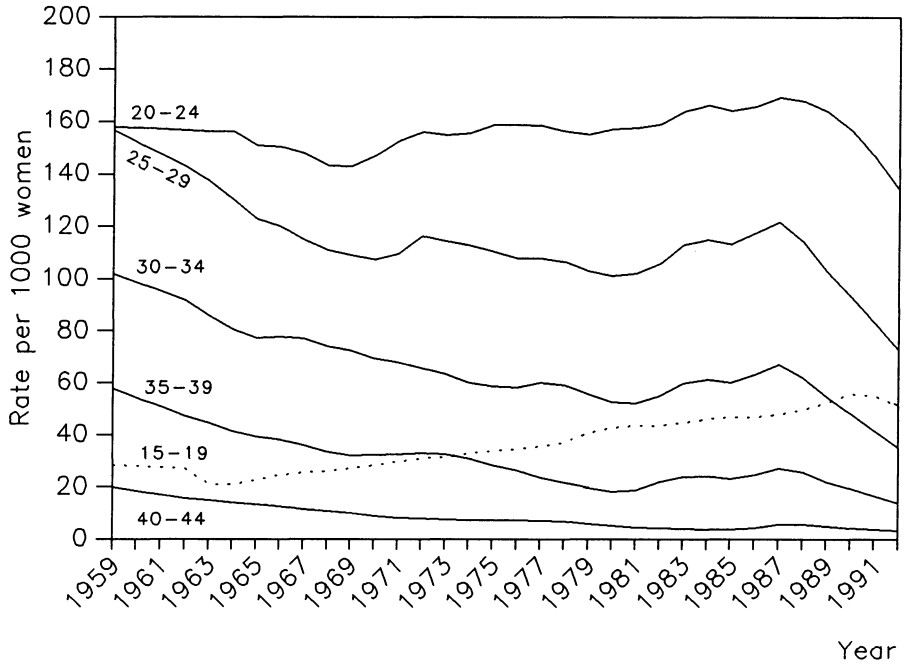
the child. That has been mentioned as a reason for nonregistration or late registration of births to unmarried mothers (for details, see Anderson and Silver, 1986, pp. 719 ff). The Code of 1968 stipulated that the space for the father's name could not be left blank[16]. The Code seems to have affected mainly women in their twenties, since the fertility increase was limited to this age group (*Figure 11*).

At the beginning of the 1980s, due to measures of population policy adopted in 1981[17], a fertility increase was observed until 1987. This increase may in part be attributed to the January 1981 law, strengthening state assistance to families with children (see Borisov, 1989, p. 324). The fertility increase in the early 1980s was mainly due to the increase in second and third births

[16] In Russia, the Code was accepted on 30 June 1969 and went into effect on 1st November.

[17] The policy includes such incentives as partly paid maternity leave for one year (later extended to 1.5 years) for working women.

Figure 11. Age-specific fertility rates, Russia, 1959-1992



(Darsky, 1992a, p. 60), affecting women aged 25 to 39 (particularly the 25-29 age group) (Figure 11). This observation supports the proposition that the 1981 law caused the fertility increase. There may also have been some 'catching up' effect, since women in the age group that accounted most for the fertility increase in the early 1980s had lower than average fertility at younger ages (Avdeev, 1994, p. 142). The levelling-off of the effect of the law in 1984 may indicate that its main effect has been a change in timing of births, instead of an increase in ultimate family size. The fertility increase between 1985 and 1987 was mainly due to the ferility increase of women 25 to 34, and much less to fertility changes in other age groups. Darsky attributes the fertility increase in 1986-87 to the 1981 policy measures: "It is possible that the first wave was the result of the shift in the timing of births and the decrease of the interval, and then it was the effect of the increase of the number of births in real cohorts." (Darsky, 1992a, p. 50; see also Darsky, 1994, p. 59). Darsky adds, however, that the 1985 Socio-Demographic Sample Survey did not show a decline in birth intervals following 1981, but an increase in second and third births.

The Total Fertility Rate in 1987 was high: 2.19 compared to 2.11 in 1986 and 2.12 in 1988. In 1988, fertility declined in all age groups, except among women under twenty, in which case the rate of fertility increased from 47.8 per thousand in 1987 to 49.6 per thousand in 1988. The fertility of women under twenty had been increasing steadily since the early 1960s from 21.0 per thousand in 1964 to 30 in 1971, 40 in 1979, 50 in 1988, and 56 in 1990. In 1990, fertility started to decline substantially[18]. If the trend continues, the TFR in Russia will not exceed 1.3 at the end of the century (Darsky, 1992b, p. 8). In 1991, the TFR in Russia had a record low number: 1.73. It is still difficult to say whether it is a short-term oscillation or a long-term tendency. It is clear, however, that the socio-economic crisis has begun to influence fertility in Russia, although the change in birth timing at the beginning of 1980s could have also forced the sharp decline in fertility in the early 1990s, due to the fact that some women had already reached the desired family size (timing factor).

The fertility decline in Russia is mainly a consequence of a decline in higher-order births. Unlike in other countries, it has not been accompanied by an increase in voluntary childlessness. Childlessness is very unpopular in Russia. Using data from the 1985 Socio-Demographic Sample Survey on married women in 1970-74 who were still married in 1985, Darsky and Scherbov (1990) estimated that 5% of married women would remain childless (based on parity progression ratio calculations). Between 6 to 8% of women in the former USSR remain childless, which is a few percentage points above natural sterility (Willekens and Scherbov, 1994, p. 198). Other estimates are higher. Most of the childlessness may be involuntary and due to sterility. The high abortion rate in Russia and frequent complications probably increase the level of sterility. Dr. I. Grebesheva, Director General of the Russian Family Planning Association, estimates that 20% of married couples are unable to have children and mainly attributes this to previous abortions (Grebesheva, 1992, p. 8[19]).

The 1985 Socio-Demographic Sample Survey revealed that less than 1% of married Russian women[20], born in 1960-64, expects to remain childless, which is less than biological sterility (Darsky, 1992b, p. 4). The proportion

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[18] Fertility declined in Russia and the other European republics, but increased in Central Asia and Azerbaijan (Darsky, 1992a, p. 61).

[19] The estimate seems high. The basis of the estimate remains unclear (Grebesheva, 1993).

[20] The data are for Russian women, not for women in Russia.

of women who want to remain childless has increased in the last years. In a 1989 survey, 2.6% of Russian women declared that the ideal number of children is zero. This increase may be due to deteriorating economic conditions. The preference for a two-child family has been increasing steadily. In 1969, about half of the women considered two children the ideal number; in 1989, about 70% adhered to the two-child-family norm (Darsky, 1992b, p. 7). As a consequence, the ideal family size changed: from 2.6 in 1969 to 2.1 in 1989. In all marriage cohorts formed after World War II, the two-child norm prevails, and the share of Russian families preferring to have two children has risen from 35% in the 1945-49 marriage cohort to 62% in the marriages of 1980-84 (Andreev and Darsky, 1992, pp. 4-5).

The Survey on the Reproductive Behaviour of the Population, conducted in July 1991 by the Russian Center for Public Opinion and Market Research, reveals interesting additional information (Bodrova, 1992). The survey was carried out among more than 3,000 persons (females and males) aged 16 and over in the former USSR to elicit information from different generations on the ideal, desirable, and expected number of children, and on the major obstacles of realizing fertility preferences[21]. According to the survey, persons of 16 and over living in Russia *desire* 2.3 children on average[22], although the *ideal* family size is considered to be 2.1 children. However, they *expect* to have much less children, only 1.7 on average, which is below replacement level, and which is less than the average number of children in the families of the respondents' parents (2.9). To the question "Are you going to have at least one more child during the next 2-3 years?", only 11% of the respondents in Russia answered 'Yes' (in the Urals, only 5%), which is much less than the average of the former USSR (18%). In case of an unplanned pregnancy, only 23% of the respondents would like to keep the child (in the Urals, 15%). In Russia, 69% of the respondents consider families without children better off in material respect than families with children (in the Urals, 81.5%) and 77% expect people to postpone their plans to have children as a result of price increases and decline in income. The main factors that prohibit the realization of fertility preferences are lack of confidence in the future, lack of food and other necessities, and housing

[21] A similar survey was held in June 1990. The results are presented by Bodrova (1994).

[22] It was not exactly the desired number of children, because the question contained the words: if you would have the necessary conditions for that.

conditions[23]. In Moscow and St. Petersburg, childcare is an important concern. In a similar survey conducted in 1990, the majority of the respondents named low income and double workload of women as the most serious problems of families. The 1990 survey included questions on population policy measures. Bodrova (1994, p. 238) reports that 56% of the population of Russia support urgent measures to increase fertility. About 5% would like to see policies to decrease the fertility level.

The timing of births has changed considerably in the last decades. Women of Russian nationality who married in the years following World War II had their first child 2.35 years after marriage, on average. This interval has been declining steadily. It reached 1.38 years among women who married in 1970-74 (Darsky, 1992a, p. 55; 1993, p. 62). The newspaper *The European* reported, in 1990 (August 31-September 2), that in some parts of the country as many as half of the brides are pregnant when they marry.

In 1991, about 16% of the births in Russia occurred outside of marriage. The figure is up from 13.5 in 1989 and 14.6 in 1990 (the number was 290,601 births in 1990 and 288,000 in 1991 [State Committee of Russia on Statistics, 1992, p. 114]). The 1989 figure is lower than in Estonia (25%), Georgia (18%), and Latvia (16%), but higher than in the other states of the former USSR[24]. In *the USSR*, the proportion of non-marital births was relatively high after the war (20% in urban areas and 15% in rural areas). It decreased rapidly up to the end of the 1960s. The introduction of the Code of Marriage and Family in 1968 reduced the stigma of registering non-marital births. In the 1970s, the proportion remained relatively stable around 11% in Russia (10.8% in 1969 and 11.1% in 1979). The proportion of non-marital births started to increase in 1978, mainly as a result of an increase among the urban population (Bondarskaya, 1992, p. 68).

Births to women not legally married consist of two categories: (i) births registered by joint voluntary declaration of both parents and (ii) births registered by the mother only. Most of the births in the first category are

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[23] The average living space per capita for families in Russia is 8.9 square meters (State Committee of the USSR on Statistics, 1991, p. 142; quoted in Vitkovskaya, 1993, p. 19).

[24] Until recently, non-marital births did not receive much attention from Russian demographers. The first study at the level of the USSR was conducted by Bondarskaya and Darsky (1990). Bondarskaya (1992) studied non-marital fertility by republic.

likely to have occurred in unregistered marriages or consensual unions. In Russia, 42% of non-marital births are registered by joint declaration.

5.2. Family planning

Contraceptive use among women of Russia is poorly documented. Two recent publications review what is known. Avdeev *et al.* (1993) and Avdeev (1994) review the history of abortion and contraception in Russia and the former USSR and present historical data. Popov *et al.* (1993) review the few contraceptive use studies that were published. Abortion is the dominant method of birth control[25]. Using data from the 1985 Socio-Demographic Sample Survey and indirect methods, Darsky and Scherbov (1990) estimated that 99.6% of married Russian women (Russian nationality) who had a child in the period 1970-84 were regulating their fertility. Anderson and Silver (1991) approximate the degree of fertility control by all women (married and unmarried) by the proportion of births that occur before age 35. In Russia, this proportion increased in the 1960s, when the TFR decreased substantially, from 0.85 in 1959 to 0.89 in 1970, and further in the 1970s, when the decline in the TFR did not continue, from 0.89 in 1970 to 0.94 in 1979, and remained at that level during the entire 1980s, when the TFR increased again.

The USSR has the highest level of induced abortion in the world, with 10% of all abortions in the world, and the contraceptive prevalence rate is very low. In order to understand the current situation, one should view it in a historical perspective. Abortions were legalized in Russia in 1920 under conditions of hunger, before the establishment of the USSR in 1922. In the absence of reliable contraceptives, families relied on abortions to avoid unwanted childbearing. At that time, one out of three pregnancies was interrupted (Khomassuridze, 1991, p. 8). The main aim of the policy was to reduce the number of abortions outside hospitals. It was considered a temporary measure. The doctrine was that the increase in unwanted children and the decline in fertility was a temporary phenomenon not typical of socialism. It was believed that improvement in economic conditions of life would automatically result in decreased abortion levels and increased birth

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[25] There is a 12-week criterion for legal abortion. Since 1987, physicians (a group of an obstetrician, a gynaecologist, and a specialist) may decide for an abortion of 12-28 weeks of gestation on medical *and social* grounds (Khomassuridze, 1991, p. 13). Uterine curtage accounts for three-fourths of all abortions during the first trimester (12 weeks). For a description of abortion methods used in the former Soviet Union, see Khomassuridze (1991).

rates. This doctrine prevented interest in modern contraception (Avdeev, 1994, p. 133).

However, the phenomenon was not temporary. The number of abortions continued to increase and fertility declined further. In 1936, abortions were forbidden, a measure taken by Stalin to increase the Soviet population (Khomassuridze, 1991, p.12). In the late 1940s and early 1950s, the number of clandestine abortions rose significantly, accompanied by a rise in morbidity and mortality of young women. After the death of Stalin in 1953, abortion was legalized again in 1955 "With the purpose of allowing Soviet women to have an opportunity to make the decision about motherhood themselves and also to prevent harm resulting from illegal abortion." (Khomassuridze, 1991, p. 12). The unwanted child was still considered a temporary phenomenon. Only in the 1960s it was understood that the fertility decline was associated with the low levels of mortality (theory of demographic transition). As a consequence of this understanding, the attitude to abortion changed. It became clear that abortions could only be reduced by introducing reliable methods of contraception. But reliable contraceptives were not available and abortion was a generally accepted method of family planning. In the early 1980s the Ministry of Health started to pay increased attention to contraception, in particular intrauterine devices (IUDs) and oral contraceptives, in order to reduce the level of abortion. In 1980, two million IUDs were manufactured in the USSR, and in 1987 the figure had reached 4.8 million. In addition, since 1983, IUDs were imported from Yugoslavia and, in 1987, from Finland. Hormonal pills were imported from Eastern Europe. This import grew slowly and reached 6.5 million pills in 1989. The import of contraceptives, including condoms, increased substantially in 1990[26]. Avdeev (1994, p. 142) estimates that, in 1989, about 2% of married women of reproductive age had access to hormonal pills and, because of the increased import, 10% in 1990.

Concern over the high abortion rate grew in the late 1980s. Several initiatives were taken. In January 1989, the Soviet Family Health Association (SFHA) was founded. It is a non-governmental association providing family planning services[27]. In April 1990, President Gorbachov urged the Supreme Soviet

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[26] In 1990, IPPF helped Soviet Family Health Association (SFHA) through the purchase of 15.5 million condoms from Malaysia.

[27] The activities of the SHFA are described by Manuilova (1990, 1991). Originally, the SFHA was a member of the International Planned Parenthood Federation (IPPF). With the dissolution of the USSR, the regional sections of the SFHA became national family

to formulate and adopt a resolution on measures to improve women's status, as well as maternal and child health care. He made a special point of saying that family planning should be the most important aspect of caring for women's health (Manuilova, 1990, p. 9; Taniguchi, 1991, p. 2). As a result, the Committee on Problems of Women, Family and Maternal and Child Health Care was established by the Supreme Soviet. In October 1990, UNFPA, WHO, IPPF, and the Zhordania Institute of Human Reproduction, Tbilisi, organized a conference in Tbilisi with the symbolic title "From Abortion to Contraception".

In the absence of modern contraceptives, couples rely on traditional methods and abortion. Using Bongaarts' model of proximate determinants of fertility, Avdeev (1994, p. 144) estimates that, in 1980, about 35% of married women of reproductive age in the USSR uses contraceptives. Most (28% age points) use traditional methods. Note that these data are for the USSR. Since contraceptive prevalence is very low in Central Asia, the figures for Russia and the other European states must be higher. The contraceptive prevalence rate did not change much in the 1980s. It declined even slightly to 29.0% in 1986 and increased again to 31.4% in 1988. The proportion of couples using modern methods has been increasing, however. In 1988, 12% of married couples of reproductive age used traditional methods and 19.4% used modern methods, mainly IUDs (13.1%) and condoms (4%). A significant finding of Avdeev was that, in the 1980s, modern contraceptive methods competed with traditional methods, not with abortions. The model estimate of the prevalence of modern contraception of 19.4% of married women of reproductive age may be compared with the estimate obtained by the SFHA. SFHA estimates that 13.3% of women of reproductive age in the USSR (not necessarily married) employ efficient means of preventing unwanted

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planning associations and the SFHA became the International Association "Family and Health". Being an international association, it lost its IPPF membership. In the meantime, half of the gynecologists perform nothing but abortions (estimated by the *Independent Newspaper* of 19 May 1991; quoted by Taniguchi, 1991, p. 2) and half of the women who give birth experience serious complications (Mikhailov, 1992, p.4). About 10% of all live births are premature (at seven or eight months of gestation), a statistic which is closely related to the high abortion rate (Laskin, 1991, p. 6). In addition, the health of delivering women is deteriorating, resulting in an increase in neonatal mortality (see section 3.4 of this paper). Maternal mortality in the USSR in 1988 was 430 per 100,000 women. In 1990, 40.7 pregnant women died per 100,000 births (total) as a consequence of complications during pregnancy, delivery, or after delivery (56.4 in 1980) [USSR data]. The consequences of abortion for the woman's health are discussed by Khomassuridze (1991).

pregnancies (Manuilova 1990, p. 10). Another estimate was obtained by the Zhordania Institute of Human Reproduction in Tbilisi. The institute estimated the modern contraceptive prevalence rate among women of reproductive age (married and unmarried) in the USSR at 13.7% (Khomassuridze, 1991, p. 8). This low contraceptive prevalence is associated not only with the lack of contraceptives, but also with a low contraceptive knowledge. This ignorance is due to lack of sex education. The inadequate provision of information can be traced to the mid-1930s when all scientific and practical work on contraceptives ceased.

In 1990, for the first time in the history of the Soviet Union, Goskomstat conducted, a large-scale survey on contraceptive use. The data were collected as part of the regular budget survey. It reveals that, in Russia, 56.8% of women aged 15-49 never uses modern contraceptives. A total of 21.8% always uses contraceptives and 9.7% sometimes takes preventive measures. The proportion of women without contraceptive knowledge is 6.0% (Popov *et al.*, 1993, p. 233).

Oral contraceptives occupy a unique position in Russia. The few surveys available indicate that they are not well known, whereas the IUD is fairly well known (Popov *et al.*, 1993, p. 230). The surveys also indicate that women consider the pill to be ineffective, inconvenient, unavailable, and harmful. Popov *et al.* assert that "the main factor influencing public opinion about oral contraceptives is the negative attitude of Russian doctors and the former Soviet Union's ministries of public health towards the pill." (Popov *et al.*, 1993, p. 232). The origins of the present situation are rooted in the late 1960s and early 1970s, when oral contraceptives first appeared on the Soviet market and led to a struggle between the traditional model, based on abortion, and the alternative model, based on the use of modern contraceptives. The alternative model was defeated. In 1974, the Ministry of Public Health issued a formal, decisive instruction constituting a de facto prohibition on the use of oral contraceptives in the Soviet Union. When the Ministry of Health started to increase attention to contraception in the early 1980s, the focus was on IUDs. The position against the pill was reinforced in the mid-1980s, when the ministry issued a number of directives regarding the contraceptive policy. One of these states: "The long-term use of the pill can result in a serious destruction of the main internal organs. It is prohibited to speak about the pill in lectures on contraceptive use. ..." (Popov *et al.*, 1993, p. 232).

The unmet need for family planning services is very large. Khomassuridze (1991, p.10) estimates that family planning services are the concern of 40-45 million women in the USSR. He also reports that only 10-30% of the required contraceptives could be obtained in pharmacies in 1988 (20% of the required hormonal contraceptives, 30% of IUDs, and 11% of the condoms). In 1990, when the import of pills increased sharply, the supply did not even cover half of the demand (Avdeev, 1994, p. 145). Prospects for sterilization seem to be considerable. The 1985 Socio-Demographic Sample Survey indicated that 50% of the women aged 26 and 90% of the 37-year-old women did not intend to have any more children (Andreev and Darsky, 1992, p. 5). Sterilization is virtually unknown in Russia.

In Russia, women who want to prevent an unwanted pregnancy have almost no choice but abortion. Most women do not know how hazardous abortions are to their health. Remennik (1987, quoted by Laskin, 1991, p. 6) estimates that about five out of six women in Russia have at least one abortion in their lifetime. Popov *et al.* (1993, p. 234) estimate that, in Russia, a woman has an average of five abortions in their lifetime (two of which two are illegal). Twenty abortions to the same woman have been reported (Manuilova, 1992). The most recent official figure of 3.6 million abortions in 1991 (for 1,795,000 births [total]) may be an underestimate. Popov (quoted by Khomassuridze, 1991, p.12) estimated in 1980 that the number of illegal abortions in the USSR matched that of legal abortions. According to Dmitriev (1992, p.9), most of the unmarried women attempt to induce illegal abortion. Komyssova (1992, p. 7) reports that, in 1990, nearly 190 thousand women interrupted their first pregnancy. Other data suggest that, for first pregnancies, 70 to 90% of abortions take place outside the recorded official statistics. This may be associated with the law on abortion which states that a girl under 18 cannot have a legal abortion unless she is accompanied by her mother. Legal abortions are inexpensive, but illegal abortions are expensive. Abortion is free in state policlinics, but not in cooperative clinics. The newspaper *Pravda* reported in its June 28, 1991 issue that in a cooperative clinic an abortion costs 110 Rubles at a time when the average salary was 300 Rubles per month (Seewald, 1991, p. 27). Illegal abortions may also be associated with the stigma attached to non-marital pregnancy. The social pressure is strong for young women who have unwanted pregnancies to resort to clandestine abortions.

Between 1975 and 1988, the absolute number of abortions in the USSR declined by 15.4% and the number of abortions per 1,000 live births dropped by 26.8% (Khomassuridze, 1991, p. 9). The number of abortions in Russia

in 1991 constituted 3.6 million or 2,056 abortions per 1,000 births. In 1980, the number of abortions in Russia was 4.5 million, which was 2,012 abortions per thousand births. In 1985, the number of abortions per 1,000 births was 1,800 (Vishnevsky and Zakharov, 1993, p. 28). Khomassuridze (1991) gives the following reasons for the decline: (i) an increase in the use of modern contraceptives, (ii) the proportion of women of reproductive age decreased due to a change in the age structure (26.5% in 1975 and 24.9% in 1985), and (iii) the number of mini vacuum abortions (menstrual regulation), which began to be used in the early 1980s were not included in the number of reported abortions before 1988. In 1988, the number of mini abortions accounted for 16.5% of the total number of abortions in the USSR.

6 | Migration

6.1. Migration in the territory of the former USSR

Migration within Russia and from and to Russia today has its roots in the history of the country. Since the 16th century, Russians colonized the vast area of Eurasia between Poland and Japan. By the end of the 19th century, a large Russian empire had formed, the Russians comprising less than half of its population — 41%, down from 71% at the beginning of the 18th century (1719) and 53% at the end of the 18th century (1795) (Kappeler, 1992, p. 233). During the 20 years between 1897 and 1917, over five million Russians migrated to outlying districts of the Empire, more than half of them beyond the territory of today's Russia. A major role was played by the resettlement of people in connection with the agricultural development of new lands in South Russia and the South Ukraine, in the Lower Volga and Siberia. Particularly significant was the role of Stolypin, Prime Minister under Nicholas II from 1906 to 1911. Following the violent peasant uprising during the 1905 Revolution, he abandoned communal land tenure and allowed peasants to leave their communes and acquire private ownership of land. Russification was one of the most important features of the policy of Stolypin and his successors. About 2.5 million people were resettled to new lands in the three years (1907-1909) of the Stolypin colonization programme (Zajonchkovskaya, 1993, p. 19).

The proportion of Russians living outside Russia has risen steadily during the 20th century. It was 6.7% in 1926, 9.3% in 1939, 14.2% in 1950, 17.4% in 1979, and again 17.4% in 1989 (Andreev and Darsky, 1992). In 1989, about 25 million Russians lived outside Russia, nearly half in Ukraine (11 million; most in East Ukraine), one quarter in Kazakhstan (6 million; most

in North Kazakhstan), and 13% in Central Asia, half of them in Uzbekistan. In all republics, Russians show a tendency to concentrate in urban areas, mainly capital cities. They occupy a high proportion of the skilled jobs in industry and government. The Russians located in rural areas largely reside in regions (oblasts) directly bordering Russia.

There were three periods in the migration of Russians (Harris, 1993a, p. 21).

a. The first period, from 1897 to 1926, was characterized by increased political and economic programs in Central Asia. Most Russians settled in capital cities. The proportion of Russians in Bishkek increased from 38 to 69%; in Tashkent from 10 to 33%; and in Ashkhabad from 41 to 62%. The capital cities were centres of Russian tsarist imperial expansion into non-Russian rural areas. In some cases, the capital cities were originally Russian fortresses. Examples are Alma-Ata, founded in 1854 as the Russian fortress of Vernyy; Bishkek, founded in 1873; and Ashkabad, founded in 1881 to control the Kazakh, Kirghiz, and Turkish pastoral nomads. In some cases, separate Russian and native districts existed side by side within a single city, most notably in Tashkent. In 1926, Russians accounted for 22% of the population of Kazakhstan and 14% of the population of Ukraine.

b. The period 1926-1959 witnessed great upheavals: collectivization of agriculture, implementation of five-year plans of industrialization, purges, forced transfer of several ethnic groups to the Asian part of the Soviet Union, World War II, and the expansion of the Soviet Union westward to incorporate Estonia, Latvia, Lithuania, and Moldavia, and to enlarge Belorussia and Ukraine. This was the period of a rapid rise in the proportion of Russians in the capital cities and other areas of the republics due to the influx of administrators and industrial workers. For instance, in Kazakhstan, the proportion of Russians increased from 20% in 1926 to 43% in 1959. The share of Kazakhs dropped from 58% in 1926 to 30% in 1959. During the Second World War, Stalin relocated industry to Kazakhstan for safety from German attacks. In 1941, about 400,000 Volga Germans were relocated to Central Asia, and in 1943/44, 600,000 people from other minorities were relocated to Central Asia. Koreans were relocated from the Far East to Central Asia before the War as a preventive measure. In total, about two million people were deported to Cental Asia, one third of them died either during deportation or soon after (Kappeler, 1992, p. 309). In the 1950s, the Virgin and Idle Land Programme of Krushchev brought many Russians to Kazakhstan.

c. In the most recent 30 years, 1959-1989, the proportion of Russians decreased in capital cities of 12 republics and it increased in two (Tallinn and Riga). Very large drops in the proportion of Russians occurred in Central Asia. For instance, the proportion of Russians in Tajikistan decreased from 13.3% in 1959 to 7.6% in 1989, and in Turkmenistan it decreased from 17.3% in 1959 to 9.5% in 1989. This decline was mainly due to the differential rates of natural increase, low for Russians and very high for the titular indigenous ethnic groups of the Central Asian republics. The proportion of Russians increased in the Baltic and the Western Republics. A substantial increase was observed in the Baltic republics. For instance, the proportion of Latvians in Latvia declined from 83% in 1945 to 52% in 1989 (Harris, 1993a, p. 9). During the period 1959-89, the russification programme resulted in about nine million Russians moving to the other republics of the USSR, most (5.2 million) in the 1960s (Zajonchkovskaya, 1993, p. 21).

A particular phenomenon during the last period is the remigration of Russians to Russia, in particular, from the eight southern republics. The outmigration of Russians already started in Georgia and Azarbaijan in the 1960s, but outflow from the other states began in the late 1970s (Zajonchovskaya, 1992, p. 6; 1993, pp. 19ff). The remigration of Russians in recent years is not a new phenomenon. Over the period 1981-90, two million people left Central Asia and Kazakhstan. In Central Asia, many ethnic Russians were being ousted from their prestigious jobs - in science, culture, health care, and government. From 1977 to 1987, in Tajikistan and Uzbekistan, the share of jobs held by the native population grew from 20-30% to 30-40% in science, from 30-50% to 50-60% in health care, and from 40-45% to 50-60% in government (State Comittee of the USSR on Statistics, 1988, p. 23; quoted by Vitkosvkaya, 1993, p. 32). What is new is the stress form of migrations. Outmigration increased substantially in the last years. Between 1985 and 1992, about one million Russians left Uzbekistan. In 1990, 130.9 thousand persons left Kazakhstan, 40.9 thousand Kirghizia, 179.6 thousand Uzbekistan, 60.3 thousand Tajikistan, and 136.2 thousand Azarbaijan (Kvahsha, 1992; quoted in Harris, 1993a, p. 10). The migrants are not all Russians. The total number of Russians registered in 1990 as interrepublic migrants numbered was 264,000, 77% of them went to Russia and most of the other migrants went to Ukraine and Belorussia, several as members of mixed families (Zajonchovskaya, 1993, p. 23). Of the more than 200 thousand Russians who went to Russia in 1990, 43 thousand came from Azerbaijan, 40 thousand from Uzbekistan, 36 thousand from Kazakstan, and 32 thousand from Tajikistan. In 1992, 926,020 persons obtained an entry visa for permanent

residence in Russia (State Committee of Russia on Statistics, 1994). Most of the migrants came from Ukraine (199 thousand), Kazakhstan (184 thousand), and Uzbekistan (112 thousand). About 67 thousand migrants came from the Baltic states.

Not only Russians have returned, but also Crimean Tatars, Caucasian people, Germans, and Koreans (Zajonchovskaya, 1992, p. 9). The autonomous Volga German Republic was re-established in April 1992 by agreement between Russia and Germany; Germany hoped that it would stem further emigration of ethnic Germans to Germany. At the same time, there was a considerable emigration of Central Asian nationalities from Russia. In 1990, 3.5% of the Kirghiz and 2.5 of the Uzbeks living in Russia left. There are approximately 32 million expatriates of the former 15 union republics, and several may be regarded as potential migrants (Harris, 1993a, p. 442).

In the USSR, no citizen could choose where to live or travel without a host of formalities. Migration was organized by the State and conditioned by change of place of employment, recruitment, and the distribution of young specialists on graduation from various educational institutions. The main instrument of the internal migration policy was the system of residence permits ('propiska'). An internal passport system and the system of residence permits in cities prohibited free movement. In October 1991, the USSR Constitutional Review Commission declared the residence permits unconstitutional (Harris, 1993a, p. 452; Perevedentsev, 1993, p. 6[28]). That did not mean that residence permits were abolished. On 12 August 1993, CNN reported that in Moscow residence permits were being auctioned and that prices could be as high as US $ 20,000. Some people bypass the system by marriage. Part of the high divorce rate in cities like Moscow may be attributed to marriages to obtain residence permits.

Current migration patterns in Russia and the former USSR are largely determined by three forces: first, real, or expected ethnic tension resulting in ethnically motivated migration; second, economic factors; and third, environmental degradation, resulting in environmental migration. During the 1980s, political instability, conflicts between different nationalities, and deterioration of the socio-economic and ecological situation in a group of regions led to a large outflow of population from the Trans-Caucasian

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[28] Perevedentsev (1993) gives an overview of the new migration (residence) policies of the states of the former USSR. A discussion is beyond the scope of this paper.

Republics, Uzbekistan, Moldavia, and the area near the Chernobyl disaster. A recent study of migration in the former USSR, mainly using data from the 1989 Census, was conducted by Cole and Filatotchev (1992). This paper considers ethnic and economic migration.

6.1.1. Ethnic migration

Aggravation of relations between nationalities has engendered a new type of migration in the former USSR, known as refugee migration. A strong national conflict between Azerbaijan and Armenia resulted in population losses for both republics in the 1980s. In Azerbaijan, the population decreased by 266 thousand people, whereas Armenia lost 321 thousand inhabitants due to migration. In contrast, until 1979, Armenia had a positive migration balance. Outflow of population from this republic began long ago and reached considerable size long before the Karabakh conflict, but the conflict greatly intensified the population outflow.

Official data released by the Ministry of Internal Affairs reveal that, by the end of 1991, there were about 800 thousand forced migrants in the former USSR, 230 thousand of them in Russia. The real number, however, may be much higher (Reguent, 1992, p.2; Vitkovskaya, 1993, p. 1). The disposition of Russians living in other states to return to Russia or settle abroad has been studied by Vitkovskaya (1993).

As far as the future of ethnic migration is concerned, experts agree on the following (see e.g. Zajonchkovskaya, 1992; Harris, 1993a, p. 442):

1. Half of the Russians in the Baltic states may leave in the 1990s.
2. Most of the Russians in Ukraine and Belorussia will stay.
3. Most of the Russians in Transcaucasia and Central Asia will leave in the 1990s. A total of four million Russians lived in these republics in 1989.
4. In 1989, about six million Russians were living in Kazakhstan and they constituted 38% of the total population. Most of them live in North Kazakhstan. In some areas (oblasts), more than 60% of the population is Russian, and the proportion is even higher in urban areas. They will probably stay. Those in the southern part of the state are likely to move either to North Kazakhstan, to Russia, Ukraine, or Belorussia.

It is clear that most of the 25 million Russians living outside Russia will remain in the state of current residence. According to estimates made by the Russian Center for Public Opinion and Market Research, two million ethnic Russians will resettle in Russia in the near future (*Izvestia*, June 27, 1992;

quoted by Vitkovskaya, 1993, p. 4). Most will come from the southern states. Among the Russians living in Turkmenia, Kirghizia, Tadjikistan, Azerbadijan, Uzbekistan, and Kazakhstan, 37.5% intend to emigrate to Russia (same survey, quoted by Reguent, 1992, p. 4). Vitkovskaya (1993) studied the propensity to migrate of ethnic Russians living in the former USSR outside of Russia, based on a survey in May-June 1992. The research was part of the project "Internal migration and emigration from the former USSR", carried out by the RAND Corporation (USA) and the Institute for Employment Studies of the Russian Academy of Sciences.

The migration policy of Russia with respect to refugees and displaced persons is contained in the 'Migration Programme' that was adopted by the Supreme Soviet of the Russian Federation in June 1992 (Reguent, 1992). According to the law, a forcefully displaced person is 'a citizen of Russia or a person possessing no citizenship, who was compelled to leave the place of his or her usual residence'.

6.1.2. Economic migration

Until recently, regions with severe living conditions, mainly the Northern territories and those conferred with the same status, attracted many migrants. Yet, the artificially introduced additions to wages and salaries do not contribute to growth of the economic efficiency of the industrial enterprises located in these regions. Under the conditions of a market economy, the high expenses at low effective production will seriously heighten the costs of production. Probably unemployment will be more acute in the north than in the other areas, which may cause a migration flow out of these regions. Outmigration from these regions has recently been observed.

The future of economic migration not only depends on privatization and associated employment policies, but also on what happens to the system of residence permits ('propiska'). Free mobility never existed in the former USSR. No one could change residence or travel without a host of formalities. In spite of the formalities, the population of the former USSR was highly mobile. According to data from the 1979 census, only 47% of the population lived in the place where they were born; 56% of the urban population and 32% of the rural population.

In recent years, migration in Russia has been characterized by a significant urban to rural migration. In 1991, 302 thousand persons moved from towns to rural areas (Reguent, 1992, p. 5). This migration may be a consequence of deteriorating living conditions in towns.

6.2. Migration from and to the rest of the world

Until the end of the 19th century, Russia was a country of immigration (Bartlett, 1979). From the 15th century onwards, specialists from West Europe were invited to come to Russia. Their number increased significantly during the reign of Peter the Great (1689-1725), when most settled in the new capital of St. Petersburg. Katharina II (1762-1796) implemented an active immigration policy (1762-1763) in order to develop the steppes north of the Black Sea and the Caspian See, that were annexed during the first half of the 18th century. Foreign settlers were given many priviliges, including land, exemption from taxes and military service, freedom of religion, and self-governance. German farmers, in particular from South-West Germany, responded to the call of the Empress and the new opportunities. By 1775, about 30,000 persons had settled in the farmland west of the lower Volga (Kappeler, 1992, p. 52). They are the predecessors of the Volga Germans. Because of the priviliges and the land inheritance which did not allow division, they were better off than the Russian farmers. Culturally, the settlers differed from the local farmers and there were no significant attempts towards integation and/or assimilation. "The catholic and protestant German settlements remained enclaves in an orthodox world." (Kappeler, 1992, p. 53). The German population increased and reached 1.8 million in 1897. The number of ethnic Germans living in the Russian Empire in 1914 is estimated at two million, the same as at the 1989 census of the USSR.

There were also other ethnicities, like mennonites coming from Friesland (most went in the 1780s to South Ukraine to avoid military service). Immigration of foreigners to Russia continued until the beginning of the First World War. It is estimated that about four million foreigners settled in Russia in the 100 years before World War I. More than half of them were Germans and ethnic Slavs from the Austro-Hungarian Empire. Until the end of the 19th century, immigration to Russia exceeded emigration from Russia.

From the beginning of the twentieth century, emigration exceeded immigration, in the period from 1900-1915 by about 1.5 million people (Bubnova, 1992, p. 147). Three out of four emigrants from Russia moved to the USA and Canada. In 1901-1905 there were 660 thousand people and in 1906-1910 another 938 thousand people, with the peak year 1907 when about 259 thousand people left for the USA. Out of about 1.6 million people who left Russia in 1901-1910, 704 thousand were ethnic Jews, 433 thousand Polish people, 90 thousand Germans, and only 75 thousand ethnic Russians. Return migration statistics show that, in 1911, per 100 ethnic Russian emigrants to the USA, there were 37 return migrants. For other ethnicities,

return migration was much lower. According to modern estimates, between one and two million people left the territory of the USSR during the first World War and the civil war .

In the post World War I period, overseas emigration from Russia stopped almost entirely, due in part to restriction on immigration introduced in the USA (introducing quotas). That is why, during the civil war period, the major receiving countries of Russian emigration became France, Germany, Turkey, and China. Rules introduced in the USSR in 1926 made emigration much more difficult.

The change of the borders in 1939 (annexation of East Poland and East Galicia following the Hitler-Stalin Pact) and the transfer of western Ukraine from the Austro-Hungarian Empire to the USSR in 1945, also had an effect on migration. Although in between the wars there was no mass migration of people from the territory of the USSR, emigration continued from the territory of modern Western Ukraine mostly to the USA and Canada.

According to estimates by Goskomstat, the negative net migration in 1946-1958 made up about 700 thousand people. Within the next decade, it was annually not more than several thousands. At the end of the 1960s, migration to join families was allowed in the USSR. Most migrants were Jews, Germans, and Armenians. In the 1970s, 228.5 thousand Jews emigrated from the USSR, 57.6 thousand ethnic Germans and 20.2 thousand Armenians (Carter *et al.*, 1993, p. 484). Starting in 1981, migration flows again decreased until 1986. Migration was mostly restricted to marriage migration. From 1987, when the Soviet Union opened its door and almost free emigration of Jews, Germans, and Greeks was introduced, emigration experienced a sudden jump from nearly 40 thousand people leaving the USSR in 1986, to 108 thousand in 1988, 235 thousand in 1989, and to 452.3 thousand people leaving the USSR in 1990. From 1948 to 1990, about 400,000 Jews moved from the USSR to Israel, nearly half (180,000) in the last year (Chesnais, 1991).

Data on recent emigration are provided by Zajonchkovskaya (1993, pp. 41ff). The following figures are based on her report. In 1990, 23% of the total number of emigrants from the USSR came from Russia (103.6 thousand; in 1991, it was 88.3 thousand), 21% from Ukraine, 20% from Kazakhstan, 16% from Central Asia, and 5% from Transcaucasus. The majority of migrants who left the USSR in 1990 were Jews (35% or 148 thousand) and Germans (29% or 124 thousand). Russians comprised 12% (53 thousand) and

Ukrainians less than 4% (15 thousand). Germans accounted for 75% of the migrants who left Kazakhstan in 1990 and 81% of those who left Kirgizstan. Jews accounted for 66% of the emigrants from Ukraine, 74% of the emigrants from Belorussia, and 83% of those who left Moldavia. The ethnic composition of the emigrants from Russia was more balanced: 25% Germans, 20% Russians, and 20% Jews. The direction of migration mirrors the ethnic composition. In 1990, 59% of the emigrants from Russia went to Israel, 32% to Germany, 4% to Greece, and 2% to the USA. In 1991, the picture is different (Israel 44%; Germany 38%; Greece 2.4%, and USA 12.5%). In 1991, the number of Russian citizens who migrated to the west was 88.3 thousand. Additional data are shown in *Table 4*.

As far as the future of external migration is concerned, experts offer very different estimates. Estimates vary from 400,000 up to one million people leaving the country annually. By early 1991, some official Soviet sources were estimating possibilities of up to five to seven million emigrants over the next two or three years (Carter *et al.*, 1993, p. 487). In the early 1990s, Jews and Germans comprised an overwhelming share of all emigrants from the territory of the former USSR, but later on experts also expect migration of Russians, Ukrainians, etc. Polls conducted in the early 1990s suggested from 11 to 46 million potential Russian emigrants. In 1991, the Institute of Employment Studies in Moscow conducted a Delphi study among 30 experts from government, science, and business, with the aim of getting their estimates of the prospects of emigration from the territory of the former USSR during the period 1992-97. Half of the experts expected about two to four million emigrants, 30% expected four to five million emigrants, and 20% expected the number of emigrants not to exceed two million (Tikhonov, quoted by Vishnevsky and Zayonchkovskaya, 1993, p. 268). In early 1992, the Russian Center for Public Opinion and Market Research asked people about emigration. One out of five adults would like to emigrate in principle (Zaslavskaia, 1992, p. 3). Western scientists came up with their own estimates. Chesnais (1991) has drawn up a list of ethnic groups with 'bonds' to cousins living elsewhere. He arrives at 20 million, but this includes the entire Armenian population of the former USSR, the entire population of Estonians, Latvians, Lithuanians, and Moldovians. The 1989 Census counted 14 different minorities with strong ethnic consciousness and strong ties with people of the same ethnicity outside the former USSR. They included 4.6 million Armenians, 2.0 million Germans, 1.4 million Jews, 1.1 million Poles, 440 thousand Koreans, and 370 thousand Bulgarians.

Table 4. Emigration of main ethnic groups, USSR, 1970-1991

Year	Jews	Germans	Armenians	Total
1970	1046	342		1388
1971	14300	1145		15445
1972	31478	3420	170	35068
1973	34922	4635	421	39534
1974	20181	6683	662	27526
1975	13139	6127	1036	20302
1976	14138	9846	4050	28034
1977	17159	9416	3165	29740
1978	30594	8597	2557	41748
1979	51547	7368	8153	67068
1980	21471	7096	13909	42476
1981	9860	8153	4337	22350
1982	2700	4461	769	7930
1983	1320	3127	439	4886
1984	903	1960	200	3063
1985	1140	980	248	2368
1986		753		
1987	8000	14488		
1988	19000	47572	11000	
1989	71000	98134	20000	
1990	200000	145000	55000	
1991		147320		

Source: Carter *et al.*, 1993, p. 484.

The new 'Law on Exit from the USSR and Entry into the USSR of Soviet Citizens and other Nationals', which was drafted in 1989, and approved in May 1991 shortly before the USSR ceased to exist, and which came into effect on 1st January 1993, did not result in a major increase in the number of emigrants. The law gives every citizen the right to an international passport and to travel anywhere in the world for any reason. Administrative restrictions (difficult to obtain passport) may be part of the reason. Another reason is the change in policy of Western countries. Following the open-door policy of the USSR in 1987, the United States first increased the quota, but then decided in August 1988 to stop according *presumptive* refugee status to all Soviets and instead began a case-by-case adjudication for them. The policy of the United States towards emigration from the former Soviet Union is described by Vernez (1993). German policy towards *Aussiedler* changed dramatically during 1990. Beginning in the 1970s, the policy was to gain freedom of exit for ethnic Germans in the Warsaw Pact countries, using a

series of bilateral treaties. In 1990, the policy was reoriented. Priority was given to improving the economic, social, and political situation of ethnic German minorities in their East European home countries. For instance, the autonomous Volga German Republic was re-established in April 1992 by agreement between Russia and Germany; Germany hoped that it would curb further emigration of ethnic Germans to Germany. The new policy towards ethnic Germans was enforced by changes in administrative procedures and financial regulations that made the move to Germany more difficult. It was accompanied by a new and more flexible guest-worker policy, opening channels by which East Europeans might gain access to the German labour market (Carter *et al.*, 1993, p. 486).

A significant new feature of migration from Russia to countries outside the territory of the former USSR could be migration to Eastern Europe. Carter *et al.* (1993) see a potential for new migration streams to develop. An estimated 1.2 million Poles and 170,000 Hungarians live in the former Soviet territory. The Poles never went to the USSR, but were subject to border changes after World War II. Some observers consider the East European countries as a 'waiting room' for many Ukrainians, Belorussians, and Russians on their way to the west. Many come as 'tourists', in reality on business escapades. The number of Soviet visitors to Poland rose from 2.9 to 4.3 million between 1989 and 1990. The forecast of millions of Soviet refugees staying in Eastern Europe has not taken place. Significantly, at the time of the August 1991 coup in Moscow, only fifteen out of the hundreds of thousands of Soviet citizens then in Poland applied for political asylum (Carter *et al.*, 1993, p. 477).

What can we meaningfully say about future emigration from Russia? The most likely future emigrants are those ethnic nationalities with ties in other countries. One might reasonably expect the outflow of Jews, Germans, and Armenians to remain high for a number of years. One trend is increasingly becoming apparent. It is that the people who are most likely to wish to emigrate, and actually do so, are those who in the past have moved, whether forcibly or voluntarily (Carter *et al.*, 1993, p. 488).

7 | Conclusion

Russia today has close to 150 million people distributed over a vast territory of 17 million square kilometers. Almost one out of five inhabitants of Russia belongs to one of the 100 minorities. On the other hand, 25 million ethnic

Russians live outside Russia, in the states of the former USSR. In order to understand today's demography of Russia, we must consider the history of the country.

The history of Russia is inscribed in its age pyramid. For instance, there are few persons aged between 45 and 50, because during the Second World War few children were born. About twenty-five years ago, when the women born during the war were in their prime reproductive ages, fewer children were born than in other periods, not because fertility declined but because there were fewer women. Today, the women born during the war become grandmothers. Their children are now in the prime reproductive ages. But today, two forces are working together to substantially reduce the number of births in Russia. First, there are much less women in their twenties than some years ago. At the end of 1992, there were two million (17%) women aged 20-29 less than in 1987. Second, the lack of confidence in the future and the lack of food and other necessities induce women to postpone childbearing. A recent survey revealed that only 11% of women of reproductive age expect to have a child in the next two to three years. According to a small sample survey on reproductive behaviour, conducted in July 1991, only 23% of the women in Russia intend to keep the child in case of unplanned pregnancy. Statistics show the facts. The number of births have dropped sharply since 1987 and, by early 1992, Russia had fewer births than deaths.

Women have their children early in Russia. More than half of the women have a child by the age of 25 and fertility is completed by age 37. Most children have a brother or sister since the two-child family norm is strong, and it became stronger in recent decades. In 1989, 70% of the women adhered to the two-child norm. Adherence means abortion. A woman has two abortions on average for every live birth. One scholar estimated that five out of six women in Russia have at least one abortion in her life. Modern contraceptives are not widely spread. Estimates of the proportion of women of reproductive age who use effective contraceptives ranges from 13 to 14% (estimates by scholars) to 22% (result of the 1990 Goskomstat survey). Modern contraceptives are not widely used because women do not know about them and they are not generally available anyway. When they are used, they do replace traditional methods of contraception, but they do not affect the number of abortions. This important finding was obtained by Avdeev.

A major concern is the deteriorating health of children. Rimachevskaya reports that, between 1985 and 1990, the proportion of children born

prematurely increased by 20% and that about 30% of the babies are discharged from the maternity hospitals with serious neuralgic disorders. The chance of surviving the first year of life declined relative to the chances of children born in Europe or North America. In 1968, infant mortality in Russia was about the same as in the USA, in 1970 it was 15% higher, and today it is 78% higher. Part of the deteriorating health of children is attributed to the declining health of mothers.

Although, as Rimachevskaya reports, more women feel unhealthy than men, they live longer, much longer. On average, women live more than ten years longer than men, the highest difference in the world. In 1990, accidents, poisoning, and violence accounted for a difference between male and female mortality of 3.6 years, which was 34% of the total difference of 10.6 years. Most of the difference in life expectancy is due to different levels of adult mortality (ages 15-59), about 60%. In this age category, accidents, poisoning, and violence are particularly important. The anti-alcohol campaign of 1985 was followed by a substantial mortality decline. Life expectancy increased by 3.2 years in only three years (1984-87). More than half of the increase (56%) could be attributed to the decline in mortality from accidents, poisoning, and violence in these years.

Migration is a new phenomenon to many citizens of Russia. In 1990, more than 100 thousand persons left Russia. About 25% were Germans, 20% Jews, and 20% Russians. The most likely future emigrants are those ethnic nationalities with ties in other countries. The 1989 Census counted some 20 million people from 14 different minorities with strong ethnic consciousness and strong ties with people of the same ethnicity outside the former USSR. They include 4.6 million Armenians, 2.0 million Germans, 1.4 million Jews, 1.1 million Poles, 440 thousand Koreans, and 370 thousand Bulgarians.

More people are settling in Russia from other states of the former USSR. That process is not new; it started in the 1960s, when an increasing number of jobs held by Russians were occupied by titular nationalities. In 1990, more than 200 thousand Russians migrated to Russia from the other states, 77% of all Russians who left the other republics. Most came from Azerbaijan, Uzbekistan, Kazakstan, and Tajikistan. Most of the 25 million Russians living outside Russia do not intend to migrate to Russia. A survey in 1992 among Russians outside of Russia revealed that two million intend to resettle in Russia in the near future. Most of the persons resettling will come from Central Asia, Transcaucasia, and the Baltic states.

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INTERNATIONAL CONFERENCE ON POPULATION AND DEVELOPMENT 1994: National report submitted by the Belgian government

Keywords: Population; Belgium.

1 | Demographic context

1.1. Historical trends and present situation

Population In 1992, Belgium passed the number of ten million inhabitants. One century ago, the country numbered barely six million citizens and its population regularly increased by 1% every year. Disregarding both world wars, during which the population underwent a marked demographic decline, the rate of annual growth remained positive throughout the century considered, thanks especially to a sustained contribution of external migrations: the foreign population that, in fact, represented 2% of the total population in 1920, constitutes at present 9% of the population of the Kingdom (*Table 1*).

However, both the economic crisis of the thirties and the decline in fertility observed since the sixties led to a substantial demographic slowdown, close to stationarity or zero population growth.

H. van den Brekel and F. Deven (eds.), Population and Family in the Low Countries 1994, 231-256.

Table 1. Some demographic indicators relating to population censuses from 1900 to 1991

Year	Total population of Belgium	Average growth rate %	Percentage of foreign population %	Infant mortality ‰		Life expectancy (Years of age)		Total period fertility rate (children)	Gross nuptiality rate ‰	Total divorce rate ‰
				M	F	M	F			
1900	6.693.548	.	.	172	146	43.6	46.6	4 *	8.6	16
1910	7.423.784	1.09	.	141		.	.	.	7.9	21
1920	7.405.569	0.02	2.02	100		.	.	.	14.2	43
1930	8.092.004	0.93	3.95	101	79	56.0	59.8	2.31	8.9	37
1947	8.512.195	0.31	4.32	64	49	62.0	67.3	2.46	9.9	106
1961	9.189.741	0.57	4.93	24	19	67.7	73.5	2.54	6.8	68
1970	9.650.944	0.56	7.21	24	11	68.0	74.4	2.24	7.6	96
1981	9.848.647	0.20	8.92	13	6	70.0	76.8	1.66	6.5	206
1991	9.978.681	0.13	9.03	8	6	72.5	79.2	1.7 *	6.1	330*

* Estimate.

Mortality Apart from these historical contingencies, the population of Belgium, just as other industrialized countries, benefited from the progress due to the improvement of living conditions and medical advancement. Three indicators are significant of this established fact:

- a spectacular drop in child mortality, i.e. a decrease of the infant mortality rate from more than 150 children per one thousand live births in 1900 to less than 10 in 1990 (eight per one thousand for boys and six per one thousand for girls);
- the considerable increase of life expectancy at birth, from 45 years in the early part of the century to 76 years today (nearly 73 for men and 79 for women);
- the co-existence of up to four generations.

Fertility and Family Although the trends of fertility and the family dynamics were less linear than those of health and survival, they too follow a degressive slope:

- the phenomenon of the well-known postwar baby boom is one illustrative example;
- the changes in personal behaviour in nuptiality (postponement of first union), divorciality and diversity of living arrangements led to fundamental changes in the constitution of the families resulting in disturbances of the demographic indicators;
- a more effective and universally accepted contraception played an indisputable role in the recent trends of completed fertility.

The changes in the TFR followed a fluctuating pattern: replacement was still ensured in the seventies and there now seems to be a recovery from its lowest level observed in the eighties.
For a long time, the Belgian situation remained heterogeneous and substantial regional differences were perceptible between notably the North and the South of the country. In 1961 for example, one still observed an average family size of four children per woman in the north-east of the country, i.e. an average twice as high as the one observed in other parts of the country. Today however, there is a clear trend towards convergence of the regional figures.

Also the changes in nuptiality followed an oscillating pattern. Indeed, whereas after the second world war one witnessed an important revival of marriage rates together with early marriage never witnessed before, one now

observes a clear hesitation to contracting a legal union. This is translated into a gross nuptiality rate of six per thousand inhabitants and a rise in the average age of first marriage (26.7 years for men and 24.8 for women in 1991). Final celibacy risks exceeding 20% for the younger generations whereas it had dropped to 5% for the nubile postwar generations. This is obviously an indication of the recent increase in consensual unions which, by definition, are not part of the civil registration data.

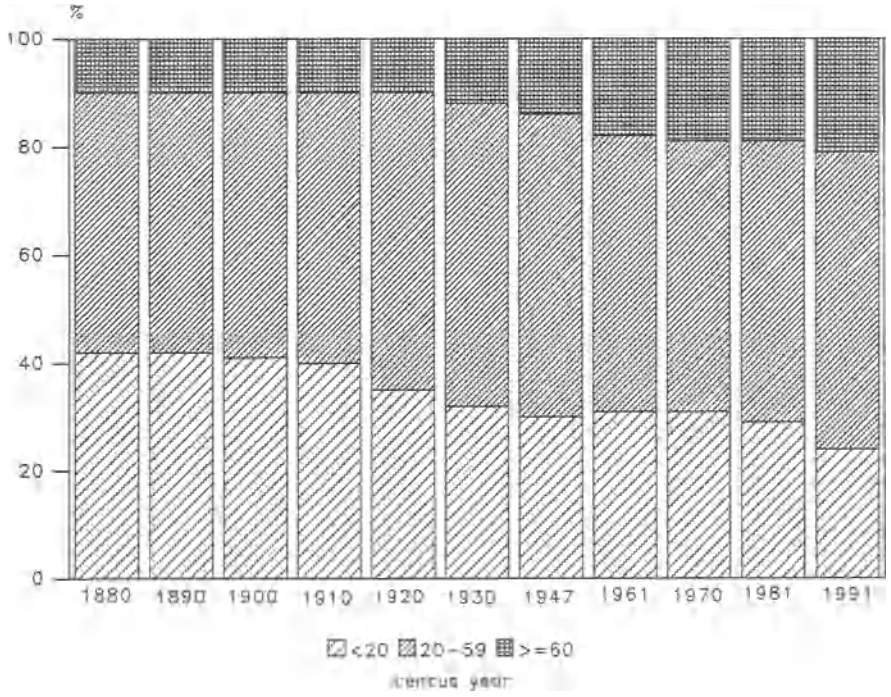
The increase of divorces follows a much more regular tendency, that could be described as exponential or even irreversible. Indeed, whereas in 1900 only 16 divorces per thousand marriages were observed, the present average approaches 330 divorces per thousand marriages, or one out of three marriages. Most divorces pronounced today result from petitions for divorce by consent, which was of rare occurrence in the early part of the century. It probably indicates a revival of a more marked individualism which is actually supported by a greater legal permissiveness.

Age structure *Figure 1* which describes the distribution of the population by age from one census to the next summarizes fairly well the above facts:

- downward evolution of fertility, resulting in fewer young persons (under the age of 20);
- lengthening of life expectancy, leading to an increase in elderly persons (of sixty and over in Figure 1);
- relatively constant percentage of gainfully employed persons (from 20 to 59 years old).

Indeed, when comparing both extremes of Figure 1, in this case 1890 and 1991, it turns out that, on the one hand, the ratio of young people is reduced by half (from more than 40% in 1890 to slightly more than 20% in 1991) and that, on the other hand, the ratio of elderly people of sixty and over has doubled (from 10% at the beginning of the century to 21% in 1991). This profound change in population structure, more precisely the greying of the population, a trend that would continue in the next decades according to the most recent demographic projections, is at the basis for the anxiety of those political leaders responsible for financing the social security system, indicating the need for new socio-economic structures adapted to this new population profile.

Figure 1. Changes in the age structure 1880-1991 (census data)



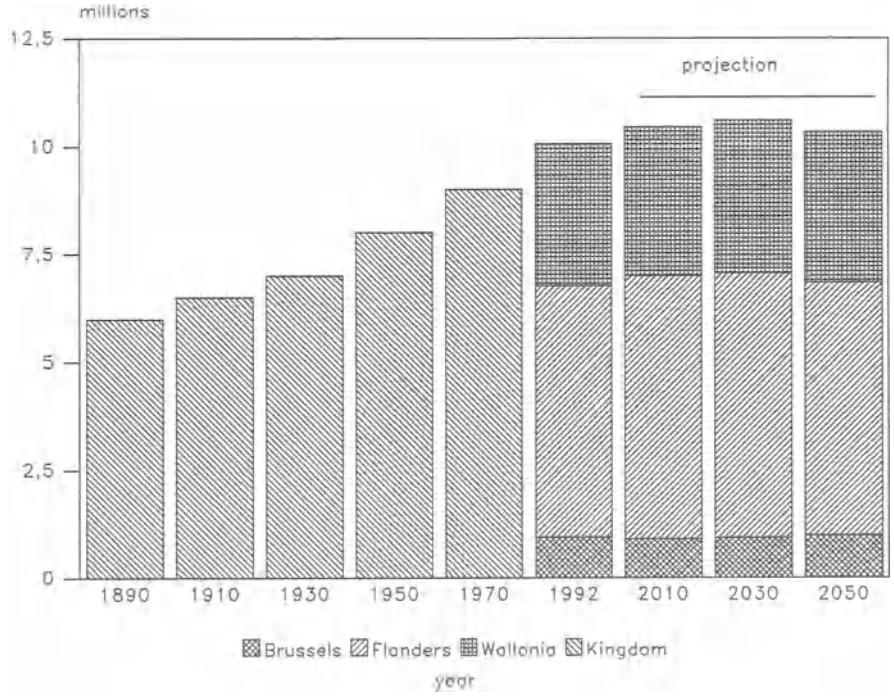
1.2. Outlook

The present discussion is based on the results of the population projections for the period 1992-2050, prepared by the Central Statistical Office in cooperation with several demographic research centres of the country and the Central Planning Bureau of the Ministry of Economic Affairs.

In 1992, Belgium had a little more than ten million inhabitants. According to the forecast of the Central Statistical Office, the country would have 10.4 million inhabitants in 2010, 10.6 million in 2030 and only 10.3 million in 2050 (see *Figure 2*).

The decrease in population as from the mid-21st century will result from a drop in natality that already set in before World War II. The increase in fertility in the period from 1945 to 1965 — commonly referred to as the 'baby-boom' period — was followed by a new decline which, on account of the increase in the birth rate of the last few years, has possibly come to an end.

Figure 2. Evolution of the Belgian population 1890-2050



Source: Central Statistical Office, Population projections 1992-2050.
Note: The administrative structure comprises three regions since 1989.

Accordingly, there would be some stabilization of the average total number of children per woman which would be slightly under the replacement level of the generations, namely 1.85 children per woman according to the hypothesis of the central scenario of the Central Statistical Office.

There is no certainty about the level at which stabilization will occur. The present level of the total fertility rate (1.62 in 1990) can be considered to be an underestimate of the actual completed number of children per woman. Because of its construction the total period fertility rate is not only dependent on the level (average completed number of children per woman), but also on the fertility schedule (distribution of births by age of the woman). In Belgium, as in other European countries, the recent fall in natality was accompanied by, and is probably largely dependent on, a postponement of the first birth. This change in the schedule has undoubtedly had a negative effect on the fertility rate. In fact, the whole question in the debate on the

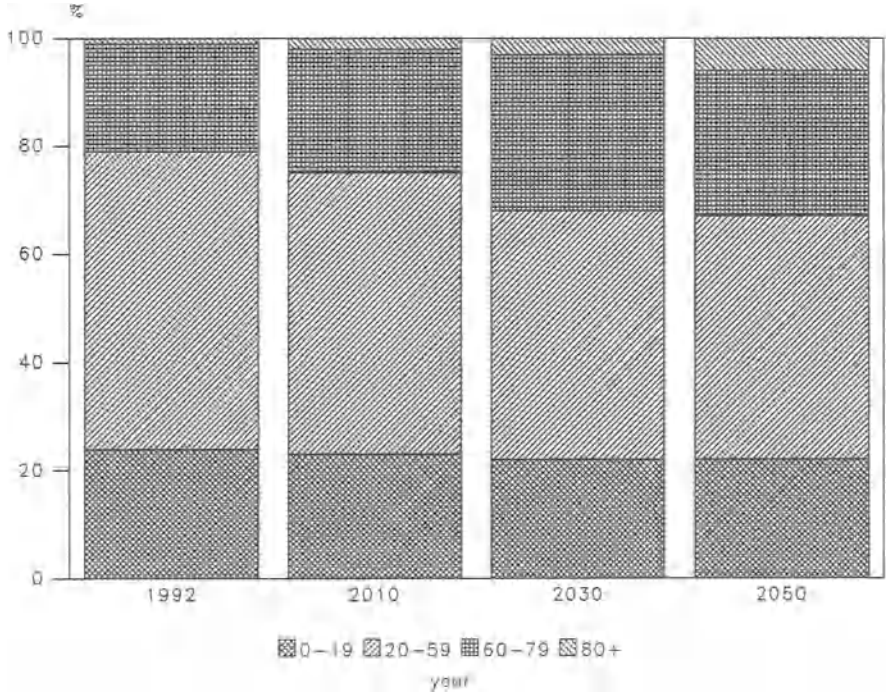
future level of the completed number of children is to discover which will be the impact of the change in the schedule on the level of fertility. In concrete terms, it is a matter of answering the question: "To what extent will the deficit of births incurred before the age of 30 be counterbalanced by an increase in fertility after that age?"

According to the Family and Fertility Survey held in Flanders in 1991, we should not expect any significant increase in fertility rates after the age of 30, at least not in the near future. The results of this survey reveal the postponement of the first birth in the last years, but the number of women expressing their willingness to have a child after the age of 35 remains very limited. According to these results, the hypothesis of a completed fertility of 1.85 children seems to be rather optimistic.
On the other hand, always according to the same survey, the family in Flanders of two children is becoming 'the norm': in comparison with former surveys, the large families (of 4 children and more) have almost disappeared. At the same time a decrease in the number of one-child families is noticed. Finally, the 'ideal' or 'wanted' number of children has remained unchanged. These are indications of a stabilization of the fertility level.

The experts who participated in the elaboration of the recent population projections are of the view that the underlying hypotheses remain subject to discussion. They underline the importance of a regular revision of the hypotheses on the basis of an ongoing analysis of the demographic evolution.

The drop in the population growth will be accompanied by fundamental changes in the age distribution (*Figure 3*).
The Belgian population will grey rapidly. In 1992 the average age was 39; in 2050 it would be over 45. The percentage of the persons under the age of 20 which in 1992 still amounts to 24%, should decrease to 22% as from 2030 (the proportion of the number of young people will not alter beyond that date because of the hypothesized stabilization of fertility). However, the most important change is the increase in the number of elderly persons. Hardly 20% in 1992, the percentage of persons over 60 would reach 33% in 2050, of whom about one out of five would be more than 80 years old (being 6% of the total population). This change results from the continuous decrease in mortality observed since the beginning of the century. During the last 20 years this decrease corresponds to an increase in life expectancy at birth of about three months or one season per year. The drop in mortality concerns especially the most elderly persons of society: between 1950 and

Figure 3. Age distribution forecast



Source: Central Statistical Office, Population projections 1992-2050.

2030 the number of persons of more than 85 years old will have been multiplied by ten. In 1992 the life expectancy at birth was 73 years for the men and 79 years for the women.

The foreseeable changes in the age distribution of the population do not only result from the future course of mortality and fertility. They are also the result of the demographic processes of the past, particularly of the changing numbers of births. As it can be noticed in Figure 3, the most important change in the age distribution will occur between 2010 and 2030 : during that period the ratio of the persons from 20 to 59 years old — the gainfully employed persons — will fall from 52% to 46%. It is indeed during that period that the baby boom children will have reached pensionable age and that the population of gainfully employed persons will essentially consist of those born during the period characterized by a low fertility, namely the period from 1965 to 1987. It is in fact at that moment that the coefficient of dependency (young and elderly people together) will be most unfavourable,

particularly in comparison with the eighties which took advantage of the favourable effects of the baby-boom.

The population projection 1992-2050 of the Central Statistical Office is based on the hypotheses of stabilization of fertility (1.85) and of a continuous decrease in mortality in line with the evolution observed in the past. Although the future is unknown, it is reasonable to believe that the hypotheses are quite reliable, at least as regards the first 10-20 years of the period covered by the projection. The same reasoning does not hold for the hypothesis of immigration.

As far as migration is concerned, the Central Statistical Office set up the hypothesis of a constant number of 15,000 immigrants per year. However, the predictions do not provide a population distribution by country of origin. Considering the recent evolution (in particular the increase in the number of political refugees), the impact of immigration might have been underestimated in the population projections. With approximately 10% of foreign inhabitants in 1993, the issue of the integration of immigrants has become a topical subject for all political parties.

2 | Outline of the policy, planning, and programmes in the field of population

2.1. Perception of the population issues

According to a survey held in 1991 in the Flemish Region, being representative of the population from 20 to 40 years old, the average number of children wanted by the respondents amounts to approximately 1.9 (1.87 according to the female respondents, 1.97 according to male respondents). This figure is slightly below the replacement level of the generations.
As appears from the same survey the fact of having children 'would give real meaning to life' for 37% of the respondents and 'would make family life complete' for 28% of them. Conversely the main reasons given for not having children or additional children are 'advanced age' for 25% of the respondents, and 'incompatibility with occupation or studies' for 27% of the women and 20% of the men. Apparently the motivation for parenthood is mainly based on individual and familial concerns.
On the basis of the present trends, one expects a stabilization of fertility below replacement level at approximately 1.85 children per woman (level used by the Central Statistical Office in its projections of the Belgian population 1992-2050).

The demographic concerns of the Federal Government and the Community Governments express themselves above all in their policies on family, elderly people and immigration.
Very particular attention will be devoted to the value and fundamental role of the family, for the stability and the development of society. In this perspective, the harmony between family life and gainful employment will be promoted.
The community ministers concerned feel strongly about the importance given to children in the society. In a recent statement on family policy, the Flemish Minister of Health, Welfare and the Family underlined the importance of an environment where children will fully have their proper place again. In the long term the objective is to redress fertility at a level which ensures the replacement of the generations. The policy advocated will be regularly revised, developed and adjusted on the basis of scientific research.

From her side, the Francophone minister, on the basis of a 'Charter of Little Childhood', has started up a consideration with a view to concluding a 'Pact of Childhood' concerning all users (parents, gainfully employed persons, decision-makers, etc.), in order to create a society favourable of children. An important item in the family policy consists in creating the conditions for a fair distribution of the occupational tasks between men and women. Concrete arrangements must be made concerning topics as: renunciation of traditional behaviour according to gender, adjustment of the legislation (in the interest of childminding), improvement of the information on family planning for both the native and the immigrant population, increase in financial assistance for pregnancy and delivery, quantitative and qualitative development of nurseries, etc.

Finally, in consideration of the increasing greying of the population, the perception of the elderly persons by young people calls for specific action in order to promote solidarity between the generations.
The different political bodies in Belgium are very concerned about the challenge presented by the ageing of the population. Solidarity between the generations, participation of the elderly people and social assistance to dependent elderly people are the fundamental principles of the policies on population ageing. Recently, new population projections were developed at the request of the Minister of Pensions for the purpose of revising the policy on pensions.

Concerning the policy on immigration, the governments in Belgium will bring immigration under better control. The policy on immigration will be founded

on a maximal integration of the foreigners with legal permission to reside, on the one hand, and on the struggle against clandestine immigration, on the other. The immigration stop will be maintained and the reception of the political refugees, with strict respect for the human rights, will be based on precise rules and criteria.

2.2. Demographic and other policies having an impact on population

2.2.1. Laws and regulations having an effect upon the state of health of the population

- The law of 9 August 1963 establishing and organizing a system of compulsory insurance for health care and allowances aims to ensure a good state of health to the entire population, on the one hand, and to compensate for the loss of remuneration owing to industrial disablement, on the other.
  The health services comprise all preventive and curative care necessary for maintaining and restoring health (medical consultations, nursing, physiotherapy, dental care, technical services of diagnosis and treatment, hospitalization, functional and occupational rehabilitation, etc.).
  In the Belgian system the health services are directly paid by the beneficiary against delivery of a certificate giving proof of the provision of medical care; after that the beneficiary applies to his insurance institute in order to be refunded. Nevertheless exception can be made to this principle in the case of the application of the system of the paying third party.
- The law of 10 April 1971 on industrial accidents requires all employers to insure against industrial accidents and accidents on the way to and from work incurred by their employees. Are eligible for compensation: decease of the victim of an industrial accident, industrial disablement (temporary or permanent), medical care, loss of wages, funeral costs and travelling expenses.
- The co-ordinated laws of 23 June 1970 concerning the compensation of damages resulting from occupational diseases are aimed at indemnifying for the decease of the victim of an occupational disease, his or her funeral expenses, the industrial disablement (temporary or permanent), the medical costs and the travelling expenses. This legislation also attempts to promote the prevention of occupational diseases.
  The indemnification relating to both systems is fixed.
- The family allowances to bear part of the family expense for maintaining children contribute to a decent standard of living and keeping the children

in good health (royal decree of 19 December 1939: co-ordinated laws concerning children's allowances for salaried employees).
The granting of allowances, increased in the case of disabled children, does not constitute in itself an instrument for improving the population's state of health. It is rather a particular compensation of which the amount is used by the parents for the objects they have in view. Certain parents can use these benefits for special care for improving their children's state of health.

2.2.2. Laws on contraception and/or abortion
The royal decree of 20 March 1989 fixes the personal contribution of the beneficiaries for medicines to which belong the contraceptives (e.g.: progestin-only contraceptives, combined estrogen and progestin oral contraceptives), at 75% of the price of the pharmaceutical speciality, considered as a basis for refund.
On the other hand, if pregnancy is terminated in compliance with the legal regulations, certain actions required for it are reimbursed by the compulsory sickness and disablement insurance in so far as they appear on the nomenclature of health services and fulfil the regulatory conditions.
The same applies to the days spent in hospital required for such termination.

For the acts which are specific to a termination of pregnancy but not provided for in the nomenclature of health services, the doctor freely fixes the amount of his fees within the bounds of deontology.
If a uterine curettage is placed to the account of the insurance institute, whereas it is an established fact that abortion was performed, the refunded amount can be reclaimed. However, an effective check on this is almost impossible.
Finally, the National Institute of Sickness and Disablement Insurance was given the responsibility of examining the problem of termination of pregnancy and of proposing the very adjustments to the nomenclature of health services.

2.2.3. Immigration laws
Immigration legislation It essentially concerns the law of 15 December 1980 on access to the territory, residence, establishment and removal of aliens, amended by the laws of 28 June 1984, 14 July 1987, 18 July 1991, and 6 May 1993, and also by the royal decree of 13 July 1992.
This law makes a fundamental distinction between the general system and several particular systems.
The general system is constituted by the whole of the general provisions governing all aliens, regardless of their nationality or status.

The particular systems group together the legal, supplementary and exceptional rules which apply to the aliens who are nationals of the Member States of the European Communities or persons placed on the same footing, to students, asylum seekers and recognized refugees.
The law also distinguishes three phases in the stay of the alien in Belgium:

- access to territory and short stay (not more than three months);
- stay of more than three months;
- settlement (after lawful and uninterrupted residence of five years).

According to the provisions of the general system, the residence of more than three months is in principle subject to the authorization from the Minister of the Interior or his representative (Aliens Office).
Consequently, the Minister of the Interior has a discretionary power over the policy on immigration in Belgium. As a general rule, long-term immigration (residence of more than three months) has been prohibited since 1 August 1974 because of the economic and social recession. However, residence permits are still issued in certain cases, particularly if the alien is authorized to pursue an occupational activity in Belgium (work permit or permit for a self-employed occupation) or in the event of humanitarian considerations.
Moreover, certain aliens have an actual right of residence and are thus exempted from ministerial authorization. It essentially concerns the spouse and children of the aliens admitted or authorized to reside in Belgium. This automatic right of family reunion is, however, subject to a number of conditions and has been limited both in time and its consequences by the law of 28 June 1984.

International agreements on treatment of aliens
Convention of 19 June 1990 giving effect to the Schengen Agreement between the governments of the Benelux Countries, Germany and France (joined by Italy on 27 November 1990, Spain and Portugal on 25 June 1991, and Greece on 5 November 1992) — in process of ratification — on the free movement of persons between ratifying countries (abolition of checks at common land borders).

Conventions concluded by the Member Countries of the European Community
- Treaty of 25 March 1957 establishing the European Economic Community (Treaty of Rome approved by a law of 2 December 1965);

- Treaty of 7 February 1992 on European Union (Treaty of Maastricht ratified by Belgium on 17 July 1992 introducing a border - free zone on the territory of the European Community.

Conventions concluded within the Council of Europe

- European Convention of 4 November 1950 for the Protection of Human Rights and Fundamental Freedoms and Additional Protocol of 20 March 1952 (approved by a law of 13 May 1955);
- Protocol No. 4, of 16 September 1963, to the Convention for the Protection of Human Rights and Fundamental Freedoms, securing certain rights and freedoms other than those already included in the Convention and in the first Protocol thereto (approved by a law of 24 January 1970). It comprises the right of free circulation on the territory of a State;
- European Social Charter of 18 October 1961 (approved by a law of 11 July 1990). It protects the rights of the workers who are nationals of the member countries of the Council of Europe.

International Conventions

- Convention of 28 July 1951 (Geneva; approved by a law of 26 June 1953) and Protocol of 31 January 1967 (New York; approved by a law of 27 February 1969) relating to the Status of Refugees;
- International Convention of 7 March 1966 on the Elimination of All Forms of Racial Discrimination (approved by a law of 9 July 1975);
- International Covenant of 19 December 1966 on Economic, Social and Cultural Rights (New York; approved by a law of 15 May 1981);
- International Covenant of 19 December 1966 on Civil and Political Rights (New York; approved by a law of 15 May 1981).

Project for amendment of the laws and regulations in force

In May 1993, the Chamber of Deputies, in public session, voted a bill amending section 10, paragraph 1, 4° of the law of 15 December 1980 on access to the territory, residence, settlement, and removal of aliens, relating to the right of family reunion of the aliens who are not nationals of the Member States of the European Community.

This bill was intended to introduce the condition of the minimum age of 18 for the right of family reunion between spouses.

2.3. Maternal and child health services, family planning services, motherhood allowances

Concerning the system of services relating to maternity, it may be observed that the sickness and disablement insurance contributes to payment of the

expenses of pregnancy, delivery, and mother's milk. The medical supervision of the young children is free.
The insured person receives a maternity benefit as from the first day of the maternity rest leave. This allowance thus replaces the guaranteed wage and the sickness benefit in case of delivery rest leave. The antenatal rest leave is determined on the basis of the expected date of delivery. It amounts to seven weeks. Six of them are optional. One is compulsory and must not start later than a week before the supposed date of delivery.
The part of the optional antenatal rest leave that is not taken before delivery can be taken after the postnatal rest leave (eight obligatory weeks after delivery) or at the time when the child has come back home after a long stay in hospital. The employed women retain the right to postpone the prolongation of the work interruption in case of decease of their child in the year of its birth.
If the mother has died or is hospitalized, the father of the child, in place of the mother, can use up the rest of the postnatal rest leave, provided that he is entitled to receive the allowances.
Finally, it may be observed that for the self-employed women, maternity rest leave consists of an uninterrupted period of three weeks running from the day after the delivery.
The following arrangements should also not be forgotten:

- the measures relating to the continuation of the occupational activities during pregnancy: recruitment, protection against dismissal, prohibition of performing certain activities;
- rest leave at and after birth: conversion of a part of the postnatal maternity rest leave into paternity leave; paternity leave; parental leave in the public sector; breast-feeding leave; leave for educating one's child; leave for nursing a sick child; career break;
- family allowances and birth allowance;
- warranted family services...;
- in civil law, the amendment of the filiation law introducing the principle of filiation equality favours the notion of the interest of the child.

The Decree of 4 March 1991 on Young People Assistance, issued by the French Community in Belgium, and the Decrees on Particular Young People Assistance of the Flemish Community, co-ordinated on 4 April 1990, widely echoed the views of the provisions of the Convention on the Rights of the Child, particularly on respect for young people rights and on assistance arrangements.

For both Communities, the Decrees give guarantees as to the procedures to be followed for national or international adoption. The assent of the adoption services is required.

In order to make mother and child protection more operational, the Government of the French Community has established by Decree of March 1983 the 'Office de la Naissance et de l'Enfance' (Birth and Childhood Office) abbreviated to O.N.E. This institution succeeded the 'Oeuvre Nationale de l'Enfance' (National Childhood Organization) set up in 1919. By Decree of 29 May 1984 the Flemish Community created the institution 'Kind en Gezin' (Child and Family).
It is still incumbent upon both 'O.N.E.' and 'Kind en Gezin' to secure mother and child — including the pregnant women — but their tasks are no longer restricted to medical aid, in the constant concern to provide them with a stable, peaceful and stimulating family and social environment.
The principal fields of activity of 'O.N.E.' and 'Kind en Gezin' concern:

- Advice:
  * antenatal advice, perinatal centres; children's advice.
- Minding services:
  * subsidized ordinary minding services (nurseries, nursery schools);
  * non-subsidized ordinary minding services (independent nursery schools, children homes, ...);
  * occasional minding establishments (holiday centres).
- Minding services in case of crisis:
  * nurseries, minding services, nursery establishments;
  * the minding services managed by 'O.N.E.' and 'Kind en Gezin';
  * the medico-pedagogical institutes of 'O.N.E.'.
- Specific actions:
  * the actions 'jeunes diabétiques' (young diabetics);
  * human milk bank of Liège;
  * the action 'enfance maltraitée' (ill-treated children);
  * the adoption services of 'Kind en Gezin'.

It is to be highlighted that one of the major assets of the mother and infant welfare in both communities is the network of medico-social workers specialized in the field of little childhood and family and spread out all over the territory. They play an all-important role in health care education and prevention of all types of medico-social dysfunction among pregnant women and parents of young children.

Moreover, through the intermediary of 'O.N.E.' and 'Kind en Gezin', the French Community and the Flemish Community recognize, subsidize and control the following bodies:

- the bodies for antenatal advice and the perinatal centres which ensure a preventive medico-social guidance of pregnancy;
- the bodies for advice on 0-6 year-old children.

An action complementing the medical, social and educational involvement is pursued within these bodies by a team consisting of a doctor and medico-social workers.

Subsidized ordinary minding services: 'O.N.E.' and 'Kind en Gezin' recognize and subsidize the nurseries, nursery schools for tiny children, childminding homes, and supervised childminders in both Communities.
Today, the minding services not only aim at providing childminding solutions for employed parents, but also and above all at meeting the needs of the child and ensuring its socialization.
The minding services are also considered to be places where the issues of ill-treatment can be channelled.
Non-subsidized minding services The independent nursery schools and also the infant homes operating in the daytime are the subject of a supervision and an educational action of 'O.N.E.' and 'Kind en Gezin'.
Holiday centres Minding services in case of crisis The nursery is specially organized for minding and boarding children under three years of age during a restricted term.
The recognized minding centres board children in the age range 2-12 for a short period.
The homes for single mothers are intended to ensure accommodation, reception and guidance for mothers-to-be or mothers with a child or children under six and to reintegrate them into society.
Ill-treated children The official recognition of multidisciplinary teams specialized in tracing and treating children who were the victim of ill-treatment, deprivation or serious negligence was established by a Decree of the Cabinet of the French Community.
The teams are 13 in number, 3 of which are specialized in antenatal prevention and constantly work in co-operation with all the persons who contribute to the field work and who are trained by them.
For the Flemish Community a decree of the Flemish Government of 8 July 1987 lays down the conditions of recognition and subvention of the Centres for Assistance to ill-treated children. There are 6 centres which are

recognized and subsidized by 'Kind en Gezin'. In 1991 the recording of the reported cases and of the diagnoses was introduced.

The French Community recognizes and subsidizes 63 centres for assistance and information with respect to sexuality, marriage and family.
The Flemish Community recognizes and subsidizes 58 centres for life and family issues.
They are designed to provide people with guidance, assistance and support in their relational, emotional and sexual lives as essential components of the personal existence of everyone, the couple, the family and the social relations.
The French Community and the Flemish Community specified their assignments and made provision for the grant of subsidies.
These assignments, which are five in number, comprise, in particular, the obligation of guidance in the matter of birth control and of supplying appropriate contraceptives to the requestors; the reception and assistance of women in trouble and the education of adult and young people in the realm of emotional and relational life and in that of responsible parenthood.
The primary prevention as to both failure of contraception and psycho-emotional problems, is one of the stakes in the activities of these centres, as well as the prevention of the sexually transmittable diseases (AIDS etc.).

The Communities lay down the working and subvention standards of the services. On the basis of these standards, the organizing powers of the different services are allowed to submit their requests for the approval of the Communities and to ask them for the subvention of their activities. These organizing powers can be either public authorities (provinces, municipalities, ...) or private organizations (non-profit associations).

2.4. Other activities relating to population
As part of their assignments of 'reception and integration of the immigrants', both Communities labour for:

- promoting the study of the French or the Dutch language among the adults and among the children through the medium of the school;
- supporting the teaching of illiterate persons to read and write, even in their native language if necessary;
- supporting both the 'homework assistance' to children and the related extracurricular activities;
- supporting or promoting the training in the basic knowledge of the institutions, in public-spiritedness, and of social and cultural workers;

- providing facilities for reception, intercultural meeting and exchange, and administrative, social and juridical information;
- favouring a better understanding of the cultures involved;
- supporting intercultural actions;
- helping with the publication of teaching aids, on the one hand, and of periodicals contributing to a better knowledge of the cultures emerging from immigration, on the other.

The welfare of the population in general and of the different target groups in particular, is ensured by various legislations and the budgets allocated to them.
Each person residing on the territory is thus entitled to social assistance; a guaranteed minimum income is provided for the over-eighteens as well as for the elderly.
The disabled persons (children and adults) receive an early support of institutions specialized in education and rehabilitation, guidance and assistance to everyday life, the care of day centres and various services, including the help in finding employment.
The families and the elderly can appeal to services for assistance and home care.
Itinerant facilities for care, inclusive of mental health care, are provided for.
Many and various social services for reception, advice and guidance are spread all over the territory.
Special centres are commissioned to lodge, support and to reintegrate the most marginalized adults.
A collective accommodation, subjected to a rigid system of rules, and day centres are provided for elderly people who are unable to live in their own homes, etc.
The guiding principles behind these initiatives are human dignity and the indispensable personal autonomy.

2.5. Importance and pertinence of the World Population Plan of Action (WPPA) and other means of action

The Bucharest World Population Plan of Action and the Recommendations of Mexico were especially conceived to treat population problems of the developing countries. Nevertheless, they constitute Charters which are also of major importance to the developed countries, not only for the evolution of their own populations, but also with respect to the development aid they can give to developing countries.

Although Belgium is not yet considering to pursue an explicit and integrated population policy, many policy measures in various fields of social life are directly or indirectly of great importance for the demographic questions.
On the whole, the Belgian politicians hold the belief that an appropriate social security policy and a family policy are the principal tools of a well-balanced demographic development.

In general, the policies on welfare, the family, health, education, emancipation, environment, immigration, data collection, research and development aid are either an established fact or a continuous process which are largely in accordance with the Bucharest World Population Plan of Action (WPPA), the Recommendations of Mexico, and the Recommendations of the European Population Conference.
However, progress can still be made in various sectors on the basis of the Recommendations of the World Population Plan of Action, the Recommendations of Mexico, and more specifically the Recommendations of the last European Population Conference. These documents comprise principles, objectives and recommendations on policies to be pursued which can incite the nations and the governments to evolve with time and adjust themselves to changed circumstances.

3 | International co-operation on population

3.1. Policies and priorities concerning population assistance supplied to other countries

In the past, population assistance was characterized by a certain caution. This was attributable not only to the vast and delicate nature of the problem but also to the sensitivity of the recipients in this field.
In the matter of population policy, the Belgian contribution thus essentially resulted from the use of indirect ways at the level of both implementation and sectorial strategies of intervention.
At the level of thematic reflection and scientific training, it was deemed more judicious to tackle the population problem through an integrated approach in a practical and operational perspective.
The Belgian co-operation thus financed operational research aiming at a better definition of the factors susceptible of optimalizing the impact of the projects.
As regards the interventions in the field, they were centred on a coherent approach of primary health care indispensable to the achievement of greater welfare of the family in general, including all aspects of a family planning

programme or births wanted, as well as prevention of endemic and sexually transmittable diseases.

3.2. Nature and characteristics of population assistance and trends in population assistance supplied to other countries

The first way used for channelling the Belgian population assistance was, in view of the foregoing, multilateral co-operation. Thus, since many years, UNFPA has received and still receives the support of Belgium for a 'contribution to the resources', completed by additional aids for specific projects.

This assistance through multilateral co-operation also comprises a continuous support of training and scientific research on the subject, by assisting in particular the International Union for the Scientific Study of Population (IUSSP) and the International Centre for Training and Research on Population and Development (CIDEP). The latter, in association with the United Nations, organizes and manages a programme of post-university training of 11 months on integration of population and development intended for French-speaking senior officials of the countries of the South. It may further be observed that the additional aid for specific projects has allowed to finance projects on, inter alia, census of the populations in Bangladesh and Ruanda, purchase of contraceptives — also for Bangladesh —, and more recently, an aid to the Union of Vietnamese Women in their recruiting and training of couples in charge of diffusing, especially in rural areas, exact and appropriate information on recognized family planning methods.

A procedure for determining the percentages of the population component relating to each project is in the process of being worked out.

As regards bilateral co-operation, the choice of the intervention strategy turned resolutely towards the integrated approach. Practically all Belgian interventions in the matter of population were included in the programmes of primary health services in general or programmes of maternal and infant health in particular.

3.3. Experiences in international co-operation

As was stated above, the Belgian co-operation in the matter of population was initially directed through multilateral channels, and, more specifically, by the agency of the United Nations Fund for Population Activities (UNFPA). Accordingly, its experience within the framework of this contribution is little, apart from the fact that the problems are complex and that every project in this area, because of its scope and the variety of the actions to be taken, requires more than any other a thorough identification of the characteristics and needs of the population in view, a precise definition

in the short, medium and long term of the purposes in order to decide conscientiously on the tasks and services or even the equipment to be furnished. What is more, any success of a project of the kind seems to be totally conditioned by an acceptance and after that by active participation of the community concerned.

Consequently, it is often difficult to conceive a short-term objective because time is needed for persuasion, then for acceptance, and finally for action. Moreover, it always concerns a target group which is particularly sensitive to the economic, social and political evolution. In other words, experience often shows that the projects on population and, accordingly, the actions considered call for a flexibility in relation to this evolution. That is the reason why projects of population censuses rapidly lapse if all qualitative data were not systematically taken into account or in the case of significant political disruptions. Thus, there are public health projects of which the purposes have completely to be modified owing to the proliferation of AIDS, particularly in the matter of women education, relations between sexes, sensitization of young people and responsibilization of men.

The actions of the Belgian co-operation at bilateral level were specially focused on the development of primary health care. Once more our experience shows that such a service can only reach a sufficient quality level if the activities are integrated in structures of basic health which are close to the population needs and considered to be its property. In this context, the concept of the medical district is probably one of the prerequisites for the success of health programmes. This essential tool which in this case consists of a first level of health centres, or even of a zonal hospital, provides for the necessary link between the target population and the health programmes. This approach must certainly be extended to the entire population issue.

3.4. Perception of the nature of the problems in international co-operation

The implementation of population programmes is characterized by a great complexity. This is attributable to the fact that demographic problems arise at both micro and macrolevel.

At macrolevel the government has decided to implement policies which are intended to maintain or to restore the balance between population growth, environment and socio-economic development. These macropolicies in the matter of population should be inserted into a microlevel strategy which is structured on the needs and aspirations of the individuals, especially of women. However, individuals do not choose to procreate according to the

demographic context, but are guided by considerations of economic survival and cultural beliefs. In order that individuals make the choice which is in line with the objectives of the population policies, it is necessary to convince them of the fact that birth control is in their own interest. This implies that the policies in the matter of population ought to provide individuals with the prospect of an improvement in their living conditions, i.e. a better health, an easier access to education and to employments ensuring satisfactory incomes. This not only requires programmes for information, communication and education, but also socio-economic policies which contribute to improved quality of life.

An integrated approach to the population problems is thus particularly advisable since the participation of the population in the national, regional and local institutions, whether public or private, seems indispensable.

3.5. Future policies and priorities on population assistance to other countries

Within the framework of its policy on development co-operation, Belgium has recently given great priority to the population issue. At the European level, Belgium committed itself to play an active role in the co-ordination of the policies of the member countries of the Community and to co-ordinate operationally the projects already planned and existing in this field. The implementation of population programmes in a certain number of developing countries has also been considered.

At national level, the multilateral contribution to the United Nations Fund for Population Activities has increased from 20 million Belgian francs in 1983 to 75 million Belgian francs in 1993.

At bilateral level, Belgium decided to enlarge its effort to back up programmes which allow for the existing interrelation between environment, development and population. Belgium will put this kind of programmes more systematically on the agenda of the joint committees that it organizes with the developing countries. The starting point of these programmes should be the individual right of women to determine the planning of their families. The right of family planning is one of the requirements of the autonomy of women in other areas. This also implies the right to participate, on an equal footing, in the social, economic, cultural and political lives of their countries. The population programmes also ought to be one of the facets of the struggle against poverty.

It follows that absolute priority must be given to projects which link the population policies to health care, education, employment and housing. Among the most important factors for the success of the programmes figure the quality of the family planning services and the organization of activities

for information, education and communication. The programmes which are centred on adolescents (boys and girls) are entirely necessary and constitute an aspect to which Belgium will pay particular attention. Moreover, this country will also give absolute priority to projects which encourage men to behave more responsibly with regard to sexual intercourse and reproduction.

4 | Recapitulation and conclusion

The demographic dynamics of Belgium, of its communities and its regions, is typical of a northern country with an old demographic transition: high life expectancy at birth, fertility inferior to the gross reproduction rate and marked ageing of the age structure; to this must be added some 10% of aliens in its population. For the future one expects a relative stability of fertility which will be slightly below the replacement level of the generations and an increase in the number of the elderly, especially in that of the very elderly.

Population change has never constituted to be an important national issue in Belgian affairs; there have been some concerns about depopulation linked to low fertility in the beginning of the century and the ageing of the population observed since the sixties is at times referred to as a serious problem. Consequently, the country never pursued a demographic policy as such. Demographic preoccupations were taken into account, albeit not always intentionally, in the sectoral policies on health, the family, the elderly, employment or the integration of the aliens.

It is probable that the Conferences of Bucharest (in 1974) and Mexico (in 1984) have aroused, among policy makers, a greater consciousness of the impact of the demographic variables on the social life of both developing and developed countries. Generally however, the measures taken are either adaptative in relation to the demographic position, or sectoral in order to accomplish the social objects and, if the case arises, able to produce an acceptable demographic effect.

Belgium, its Communities and Regions, want to remain a child-friendly country, enabling parents to achieve their desired number of children in the best possible conditions, more specifically by creating a fairer division of tasks between parents. In this perspective, many measures were taken, such as the support to sexual, conjugal and family guidance, contraception guidance, partial depenalization of abortion, the benefits and services relating to parenthood, and the measures for mother and child welfare. In the matter

of health and mortality, they pursue policies intended to the protection of all citizens thanks to especially the compulsory sickness and disablement insurance, and to the legislations on industrial accidents and occupational diseases. Moreover, mothers and young children benefit by special protection.

Although the stopping of clandestine immigration — or at least an appreciable reduction of it — is being pursued with various measures, of which many have been taken at the European level, it is nevertheless a fact that a better integration of the legally residing aliens has become an important objective at all levels of decision-making, also at the community level.

Also progressively, the elderly and very elderly do not only increase in number but also in social importance and, in addition to measures which meet their needs of health, assistance, and guidance, a policy intended to ensure their having a more significant place in society, is taking shape.

As regards co-operation, Belgium has always been very active in the area of health, especially in the area of primary health care, in which family planning has always been included. However, till lately, it was cautious about supporting activities of demographic policy. This attitude has considerably changed. Besides reinforcing its financial support to UNFPA, this country has decided in favour of a greater support to population programmes which allow for the interactions with development and environment, show respect for the individual right of procreation, improve the status of the women and struggle against poverty.

As such, Belgium, its Communities and its Regions, believe to sustain the World Plan of Action, as originally developed in Bucharest and reaffirmed in Mexico, but by taking into account their demographic, cultural, social and political specificities, as well as their membership of the European Union. They also reckon on participating actively in the Cairo Conference work.

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Keywords: Population; the Netherlands.

1 | Introduction

The government of the Netherlands considers population a major issue in the process of sustainable development and has actively participated in the world population conferences in Bucharest (1974) and Mexico (1984), and in European population conferences, such as in Geneva (1993). The World Population Plan of Action (WPPA), as discussed and revised at the various conferences, and related documents such as the Amsterdam Declaration (1989) adopted at the International Forum on Population in the 21st Century as well as the International Development Strategy for the Fourth United Nations Development Decade, have consistently served as a basis for Dutch policies.

The general aims of the WPPA are still valid as a basis for population-related policy action by the Netherlands as an integral part of wider social, cultural, economic and environmental development strategies.

This report describes current and future demographic trends and population related policies in the Netherlands, and indicates priorities for future action.

H. van den Brekel and F. Deven (eds.), Population and Family in the Low Countries 1994, 257-292.

2 | The demographic context: trends and perspectives

The Netherlands is one of the most densely populated countries in the world, with a current density of 446 inhabitants per square kilometre of land area. On 1 January 1993, the number of inhabitants was 15.2 million as compared to 12.9 million in 1970. In the 1970s, population growth numbered 1.1 million, whereas in the 1980s the population of the Netherlands grew by 0.8 million. Annual population growth rates decreased from around 1% in the early 1970s to 0.7% in the early 1990s. The decline in population growth was mainly caused by a sharp drop in fertility. Since the early 1970s, the Netherlands records below-replacement fertility levels; the Total Fertility Rate declined from 2.58 (1970) to a current 1.59. The share of net migration in total population growth doubled between 1970 and the early 1990s. Currently, some 40% of this growth is caused by international migration. Even though population growth has declined, it still tends to be larger than in most other European countries. In the late 1980s and early 1990s, the population growth of the Netherlands ranked fifth in Europe (among the countries with over 1 million inhabitants). One explanation for the relatively strong growth in the Netherlands is the age structure: there are relatively many women in the childbearing ages. Furthermore, mortality is low, whereas immigration is relatively high.
According to the latest Netherlands Population Forecasts, published by the Netherlands Central Bureau of Statistics (NCBS) in 1992, the population is expected to continue to grow for some 40 years, mainly due to continued immigration, although the rate of growth will further decline (*Figure 1*). Maximum population size will be reached around 2030 with an estimated 17.3 million inhabitants (*Figure 2*).

2.1. Age structure

Compared with other developed countries, the Dutch population is still rather young due to the fact that the fertility decline in the Netherlands started somewhat later than in other Western European countries. Nevertheless, the population of the Netherlands is ageing, and the pace of this process will increase in the decades ahead.
The number of young children aged 0-9 years declined strongly in the 1970s and early 1980s. In the early 1980s, the age group 10-19 was the largest, but its size dropped sharply during the 1980s. In the past decade, this age group decreased from 2.47 million (17.5%) in 1980 to 2.01 million (13.4%) in 1990. In the late 1980s, the age group 20-29 years was the largest, followed by persons in their thirties. In the coming two decades, the number

Figure 1. Percentage population growth

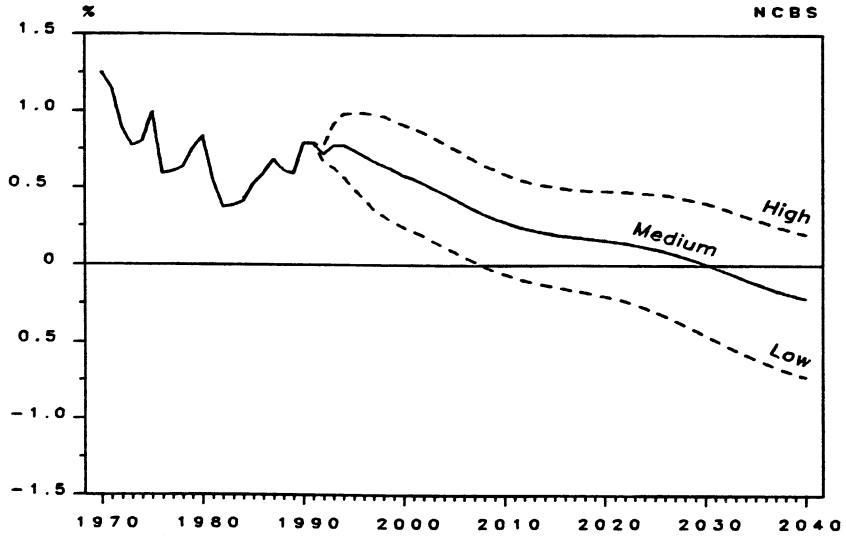
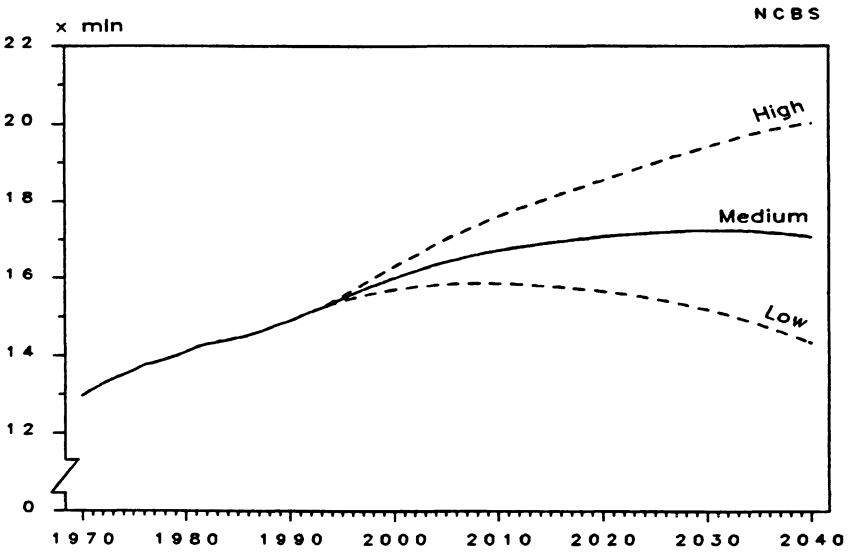


Figure 2. Population on 1 January



of people in their forties and fifties will increase strongly. The ageing of the population is also demonstrated by an increase in the over 65 year age group from 1.6 million (11.5%) in 1980 to 1.9 million (12.8%) in 1990. A particularly strong increase occurred in the number and share of the very old (80+) from 312,000 in 1980 to 428,000 in 1990: an increase of 37.2%. Presently 3% of the population is over 80, a share which will increase to approximately 7% in 2050 (*Figure 3*).
The main cause of the ageing of the population is the development in the number of births in the past. The increase in life expectancy has played only a minor role. Since 1950 the number of persons aged 50 years or over has doubled. Only 8% of this increase can be attributed to the increase in life expectancy.
The percentage of the population aged 65 or over in the Netherlands (13% in 1990) is lower than, for example in the Nordic countries (17 to 19%) or the neighbouring countries (15%). The share for the Netherlands is similar to that in countries such as Spain and Portugal. A strong increase in the number of persons aged 65 or over will occur after 2010. The share of people aged 65 or over will reach its peak around 2040: at that time one quarter of the population will be older than 65.

2.2. Fertility

After a sharp decline in the 1970s, the number of births started to increase again in the mid 1980s. There are two main reasons for this rise. First, the number of women of childbearing ages increased as a consequence of the baby boom of the 1950s and early 1960s. Secondly, changes in the age at which women have their children affected changes in total births. The baby bust in the 1970s was caused to an important extent by a delay in childbearing. The mean age of the mother at the birth of the first child increased from 25 years in 1970 to 28.0 years in 1992 (*Figure 4*). This is higher than in most other European countries. The strong delay of childbearing was facilitated by the wide social acceptance and use of effective contraceptive means.
In spite of the recent increase in total births, the ultimate average number of children per woman continues to decline. Women born around 1930 had 2.6 children on average. Women born shortly after the Second World War had just under 2 children, whereas women born in 1970 are expected to have 1.8 children (*Figure 5*).
There are two stages in the decline of average family size. At first the number of large families decreased. About half of the women born around 1930 had at least three children, as compared to only one quarter of the

Figure 3. Population by age group on 1 January

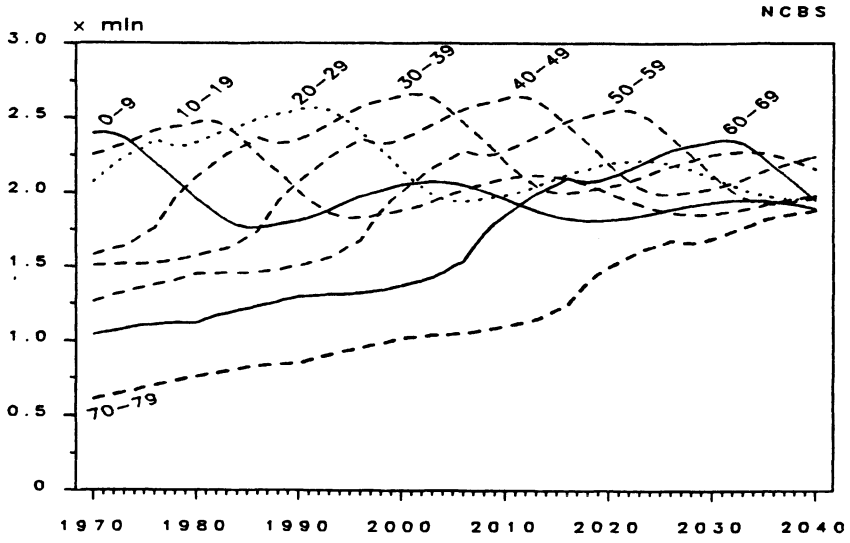


Figure 4. Average age of the mother at birth of the first child

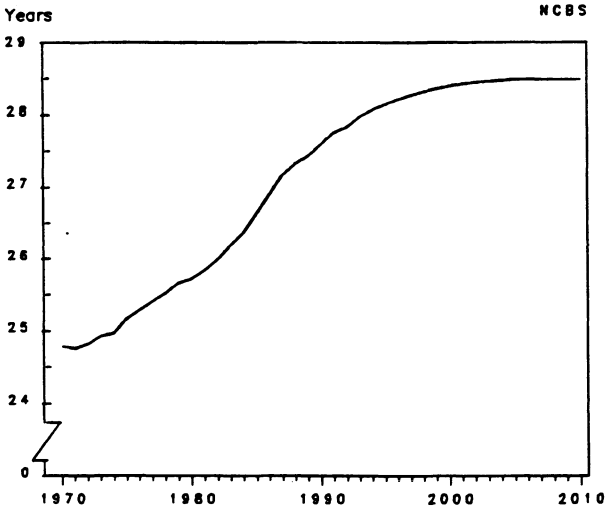
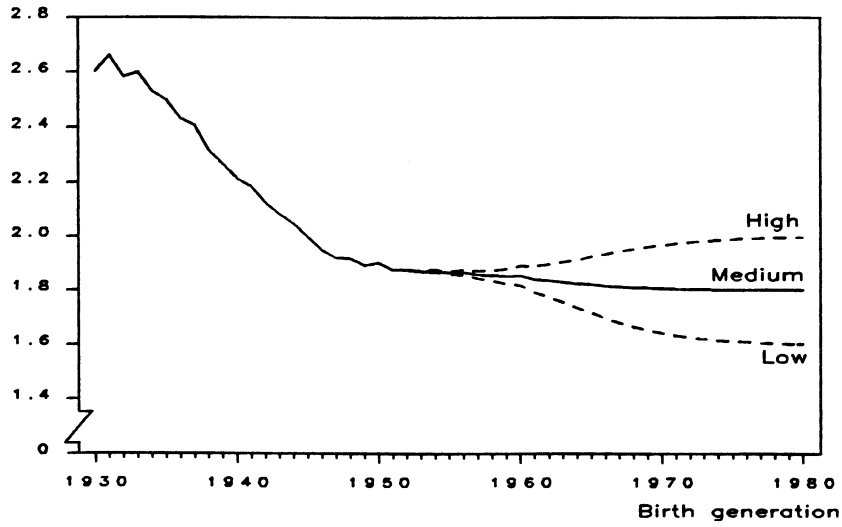


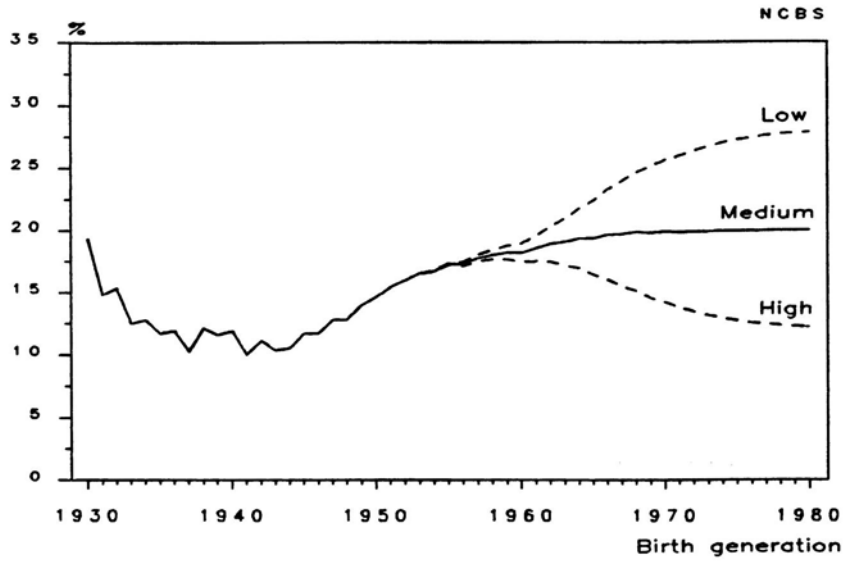
Figure 5. Number of children per woman



women born shortly after the Second World War. Currently, the drop in the number of large families has come to an end. The more recent decline in average family size is caused by an increase in the number of women who remain childless. Only 10% of the women born during the Second World War remained childless, whereas it is expected that 20% of women born in the 1970s will not have any children (*Figure 6*). The average number of children born to women with children hardly changes.

The fertility decline, the delay in childbearing, as well as the rise of childlessness are related to the changing position of women in the family which is connected with societal trends such as secularization, emancipation, and individualization. Particularly the rise in number of the years spent in school and the resulting increase of the level of educational attainment as well as the increase of labour force participation of women have played an important role. In the 1950s and 1960s labour force participation of women was very low. In 1960, only 20% of women aged 25-39 worked outside the home. In the 1980s, the percentage had increased to 50. Although an increasing number of women try to combine work and raising children, the majority of working women still quit their job after the birth of the first child. According to the latest population forecasts the total number of births will continue to grow until 1998 due to the catching up of delayed births.

Figure 6. Percentage childless women



Around the turn of the century a decline of total births is expected due to the decrease of the number of women of the childbearing ages.

2.3. Mortality

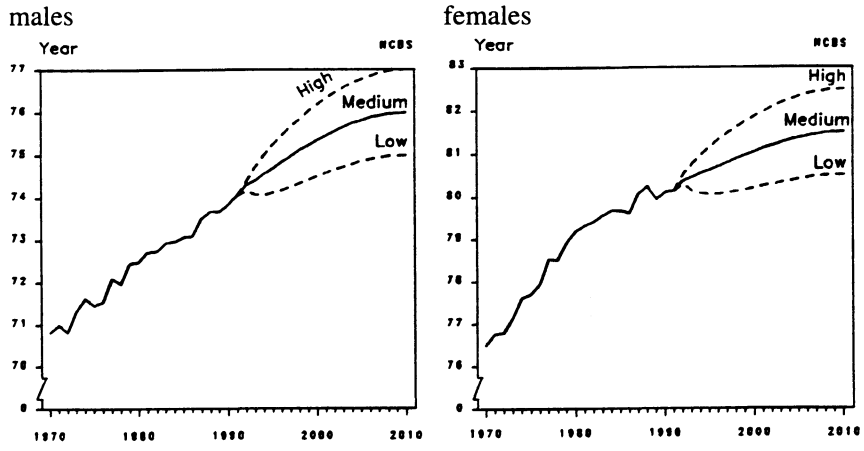
Life expectancy at birth continues to increase for both men and women, although the improvement for men exceeds that for women (*Figure 7*). Nevertheless, women still live longer than men. In 1992, the average life expectancy of men was 74.3 years and that of women 80.4 years. Between 1950 and 1980 the improvement in life expectancy of women exceeded that of men. In 1950 the difference was about 2 years, whereas in the 1980s the difference was some 6.5 years. Since the late 1980s, the difference has declined. Male life expectancy continued to increase during the 1980s to the same extent as in the 1970s, but female life expectancy, after having surpassed 80 in the mid 1980s, did not rise much further.

Although women live longer than men on average, they are not more healthy. For both men and women, the healthy life expectancy is about 60 years.

The main cause of the increasing life expectancy in the past decades was the strong decrease in mortality rates at very young ages. In the 1980s, the decline in mortality risks at the middle ages became more important.

For the next decades, a further increase in life expectancy is expected. However, the rate of increase is expected to decline. The reduction of the

Figure 7. Life expectancy at birth



main current causes of death (cardiovascular diseases and cancer) mainly effects the older age groups. Hence, any improvement in life expectancy will be limited.

2.4. International migration

International migration has shown strong fluctuations. Net migration in 1980, for example, was about 50 thousand; three years later it dropped to around zero, and in the late 1980s it was again about 50 thousand.

Apart from the size of the migration flows, the type of migration has changed as well. In the 1960s and early 1970s, labour migration from the mediterranean countries, particularly Turkey and Morocco played a prominent part. Because of the oil crisis (1973) and the rise of unemployment in the Netherlands, labour migration declined. However, in the second half of the 1970s, net migration continued to grow, partly due to the rise in family reunification. Moreover, the independence of Surinam in 1975 resulted in immigration waves around 1975 and 1980. In the 1980s, family formation became an important source of migration. If second generation migrants marry a partner from the country of origin, the latter is allowed to immigrate under certain conditions. Furthermore, in the 1980s, the number of refugees and asylum seekers increased strongly. Until 1980, the annual number of

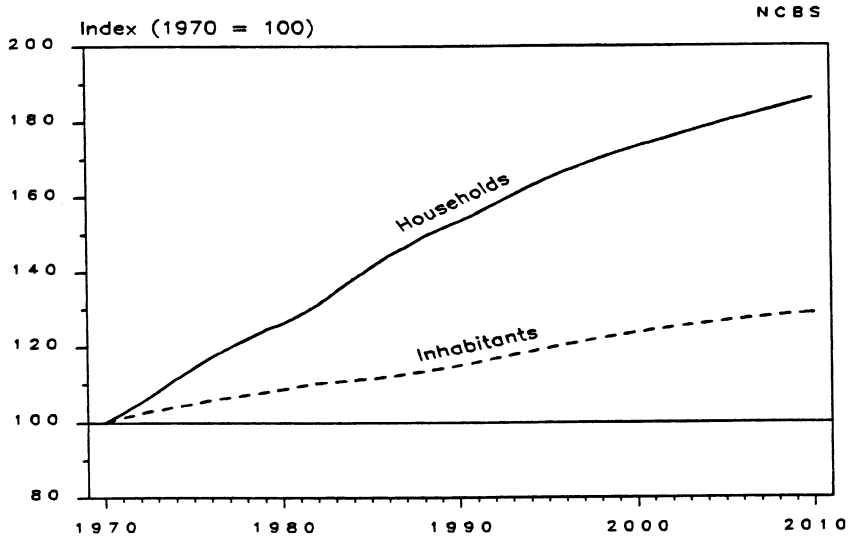
requests for asylum was under one thousand. In 1993 the number of requests for asylum is expected to reach approximately 38,000.
Besides temporary waves, there are also more structural migration flows. There is a long history of immigration from neighbouring countries, partly due to labour migration and partly due to marriage migration.
For the coming years immigration is expected to remain high and will possibly increase. Labour migration is mainly restricted to citizens of the EC countries. Family reunification is expected to further decrease. In the short run, family formation migration will increase, but in the longer run this type of migration is also expected to decrease, as the second generation will increasingly tend to choose a partner who already lives in the Netherlands. On the other hand many Dutch citizens, amongst others from Surinamese origin, choose a foreign partner. In the early 1990s, emigration (including unregistered emigration) has risen. This increase is expected to continue, as many immigrants (particularly the majority of the asylum seekers) are not allowed to remain in the Netherlands legally, although part of them will do so illegally. Many immigrants from EC countries tend to remain only temporarily.
In 1993, 9% of the population of the Netherlands was born abroad. In recent years, the number of foreign-born persons has increased by 4% on average, whereas the growth rate of the total population has been only 0.4%. The single largest groups were born in the former colonies Indonesia and Surinam; other groups came from Turkey and Morocco.

2.5. Households

While the number of households is increasing, the average household size is declining. In the early 1970s, the average household size was 3.56, whereas in 1992 average households numbered 2.44; a further decline to 2.29 is projected for 2010. Until 2010, the rate of increase in the number of households is expected to be twice that of population growth (*Figure 8*).

The main cause is the growth of the number of one-person households. In 1970, 17% of the households consisted of one person, whereas at present this is about 30%. In the coming years, the number of one-person households is expected to continue to rise. According to the NCBS Household Forecasts, in 2010, 36% of households will consist of one person.
The increase in the number of one-person households is partly caused by changes in behaviour. For young people living alone, this is often a temporary stage before entering married or unmarried cohabitation. Another part of the increase in the number of people living alone is related to the

Figure 8. Number of inhabitants and households



ageing of the population. The number of widows is increasing strongly. In 1990, about 250 thousand women aged 75 years or over were living alone. In 2010, this will be 350 thousand. Whereas the rise in the number of one-person households among young people can be considered as voluntary, the rise among the elderly, mainly caused by widowhood, certainly is not.

In the 1970s and early 1980s, the annual number of marriages decreased sharply. In the second half of the 1980s, the absolute number of marriages increased again, although the first-marriage rate remained relatively stable. After a decline in the 1970s, the mean age of women at first marriage increased again in the 1980s; the current age is 26.6 (1992). This development is related to the rise in unmarried cohabitation. For most couples unmarried cohabitation is a temporary stage before getting married rather than a permanent alternative to marriage. Hence the main effect of the growing popularity of unmarried cohabitation has been the postponement of marriage. According to the latest forecasts, about three quarters of the generation born in the 1970s will marry.

3 | The population policy and programme framework

The Netherlands does not have an explicit population policy, i.e. a balanced set of policy measures aimed at direct intervention in demographic processes. Nevertheless, there is a genuine awareness that population trends exert a considerable influence on society, and touch upon a wide variety of policy issues, such as social security, the labour force, housing, transportation, the environment, education, health care and care for the elderly. Also, it is generally acknowledged that policy measures in these areas may, individually or jointly, have a significant demographic impact by influencing the social conditions and contexts in which individual decisions are made. Although direct intervention in demographic processes is refrained from in Dutch policy, the indirect demographic effects of various population-related policies are recognized. Noting the intricate interrelationships between population and socioeconomic development, and taking into account the government's stand that the population of the Netherlands should preferably stabilize as expressed in 1988 (TK 15552, 13, 1987-1988) and re-iterated at the European Population Conference (Geneva, 1993), Dutch policy aims at carefully monitoring population trends and population-related policies, as well as the way in which population issues are perceived by the population.
For this reason, an appropriate scientific infrastructure for analysing determinants, trends, and consequences of demographic trends has been created, as well as a permanent dialogue between science and policy.

3.1. National perceptions of population issues

Due to substantive changes in the growth and structure of the population, the national perception of population issues is changing over time.
Both in the Netherlands and abroad, the 1960s and early 1970s, witnessed an exploding population growth and a subsequent increasing concern for issues like overpopulation and crowding. Especially in a densely populated country like the Netherlands, this stimulated public concern for population issues and their negative impact on the environment and the quality of life.
The sharp and rather unexpected fertility decline, initiated at the end of the 1960s was the predominant population issue of the 1970s. The availability and accessibility of safe and reliable contraception was among the main policy objectives, where Dutch policy endorsed the commonly accepted view that individuals and couples should be able to decide freely and responsibly on the number and spacing of their children. Population Policy Acceptance surveys, taken by the NIDI on a regular basis since the early 1980s, show a continuing concern among the majority of the population for overpopulation and a preference for a smaller population size. Since the late 1960s, the

interrelationships between family formation and female labour force participation has been a rather constant population issue. Against the backdrop of below-replacement fertility levels and still relatively low female labour force participation rates, the combination of parental roles and social participation, notably on the labour market, received increasing attention in Dutch policy, in the general framework of equal opportunities policy. Viewed from a gender perspective more emphasis was put on the solidarity between the genders and the sharing of responsibilities by men and women, which implies a more active participation of men in parental responsibilities. Individual attitudes are generally consistent with these policy objectives and support a further extension. In this respect, parents are more in favour of measures which aim at improving financial assistance to families with children (child allowances, tax facilities), while the (still) childless prefer the extension of leave and work arrangements (child care facilities, flexible working hours etc.). Notwithstanding these outcomes, survey data also indicate a rather weak solidarity between people with and without children as regards policies favouring parents.

In the wake of the ongoing changes in the age structure of the population, the medium and long-term consequences of population ageing dominated the social 'agenda' of the 1980s. The sustainability of the social security system, notably with respect to old age pensions, as well as the care for the elderly and the very old, became emerging population issues. One of the main social challenges here is the strengthening of the solidarity between the generations, both at the macro level of society (pensions, care facilities) and at the micro-level of the family (emotional and instrumental support for the elderly).

Another dimension of the changing structure of the population which was important in the 1980s concerned the consequences of the changing household composition of the population. Triggered by changing fertility, nuptiality, divorce, mortality patterns, as well as by the ongoing migration influx, a more diversified household structure emerged, with increasing numbers of people living alone (especially among the old), more single parent families and increased unmarried cohabitation. Generally speaking a shift from a family-oriented society to a more individualized society became apparent in the 1980s, a shift which not only expresses demographic but also social change.

International migration issues have played an important part since the 1960s, when immigration to the Netherlands took on a more substantive dimension. Initially temporary in nature (labour migration), migration became a more

permanent characteristic of Dutch society, with subsequent calls for accommodation policies. Stimulated both by fundamental intra-European political and economic changes and ongoing migration pressure from outside Europe (South-North Migration), international migration issues and the position of migrant populations, acquired a renewed urgency in the 1990s.

Against the background of current and expected demographic trends, their determinants and consequences as well as the perception of population issues, a variety of population-related policies was developed. The following sections describe these policies and other instruments which have an impact on population trends in the Netherlands.

3.2. Policies related to the health status of the population

The state of health of the Dutch population is improving with positive developments regarding major causes of death, such as cardiovascular diseases, cancer and accidents, which together account for 72% of all deaths, among young adults and middle-aged groups. These trends result in increasing life expectancy at birth.

Health policies witnessed a shift from mortality to morbidity issues. However, attention is still being paid to the mortality risks of specific risk groups, such as younger children, ethnic minorities, and people in lower socioeconomic strata. With respect to morbidity, attention has shifted to the chronically ill, especially the elderly and the very old. Health policy is aimed at improving the quality of life of these groups. Current and future trends in public health were monitored and reviewed in a recent study on Public Health Status and Forecasts (1993).

In *A Strategy for Health* (1992), Dutch health policies have been summarized in terms of five priorities:

- strengthening policies aimed at maintaining and improving the quality of life of the chronically ill,
- strengthening policies on absence from work due to illness and inability to work,
- strengthening policies to reduce differences in health for categories of the population who have not benefited to the same extent from the improvements in the general state of health. Particular attention is paid to immigrants, the homeless, and the lower social and economic strata,
- continuation of policies to reduce avoidable health problems and premature mortality, and

- more emphasis on psychological problems and reinforcing preventive measures in relation to such problems.

The main policy concerns with respect to AIDS are research, the prevention of HIV-contamination, maintaining the quality of life and the prevention of discrimination and stigmatization of AIDS patients and HIV-infected people. At present the Netherlands has some 2.500 AIDS patients (1992) which is relatively low in a European context, but this number is expected to increase significantly in the near future.

Euthanasia is to remain a criminal offence in the Netherlands as laid down in the Dutch Criminal Code. Medical actions which accelerate the termination of life must be reported to the public prosecutor, who will decide on a case-by-case basis whether prosecution should follow.
Since November 1990, medical doctors have been reporting cases of euthanasia and assistance to commit suicide to the local coroner and the public prosecutor. This method of reporting, which is to be incorporated in the Act relating to the disposal of the dead, has thrown light on the number of cases. As familiarity with the reporting procedure grew, the number of reports increased from 590 cases in 1991 to over 1300 in 1992.

The Netherlands is currently modernizing and restructuring its health system. The purpose of this is to ensure that each citizen will have sufficient quality care available. The political debate is currently about how, under what conditions, and at what rate the modernization of the care sector will take place in the coming years. Elements included in this are the promotion of efficiency, cost control, promoting solidarity between citizens, and mutual responsibility among all those involved.
Collective prevention is one of the aspects of public health which requires continuous government involvement. The responsibility for this policy area lies mainly with local governments, also because of efficiency reasons. Further, local governments should promote the correspondence between collective prevention and curative medicine. For this purpose, local governments ensure the continuation of municipal health services, which are the most important functional agencies.

3.3. Policies related to international migration and migrants
International migration occurs for a wide variety of reasons. People may move to other countries, either temporarily or permanently, to improve their living conditions, to gain experience, to secure their future and benefit from better opportunities, to flee from unbearable oppression or even prosecution,

to exercise basic human rights or escape environmental degradation. The strong increase in information, communication, and transport facilities has further stimulated international migration. In the course of history, many countries benefitted economically and culturally from migrants who settled there. In itself, voluntary migration should be regarded positively, although its consequences for both sending and receiving countries may be negative as well. In the sending countries, negative effects may include the loss of productive capacity and brain drain, while in the receiving countries immigration may pose an extra strain on society, for example, with respect to housing and the labour market, health care, and the educational infrastructure. Ethnic tensions and even xenophobia may be incited in the receiving countries as well.

The Netherlands never deliberately attracted permanent migrants. On the contrary, population pressure prompted an emigration policy in the 1950s. As a consequence, comprehensive immigration policies to stimulate and regulate permanent immigration for economic and demographic purposes, as executed by traditional migration receiving countries, were not developed in the Netherlands. However, in the 1960s and early 1970s policies to recruit temporary labour migrants from the Mediterranean basin existed. Also today there is no need for the Netherlands to stimulate immigration. But contrary to past policy objectives, immigration to the Netherlands acquired a more permanent nature. Consequently, the Netherlands has become a de facto immigration country, largely due to the fact that many temporary migrants stayed on and are reunited with their families or engage in family formation by attracting marriage partners from their country of origin.
The government has recognized that immigration to the Netherlands has acquired a rather permanent nature, which calls for public concern regarding the capacity to receive and integrate migrants and to meet their expectations both with respect to material changes (from poverty to wealth) and emotional changes (from fear to hope). In the coming decades, large and irregular migration flows have to be dealt with, a phenomenon which should be approached pragmatically. Recently, the strong increase in the number of requests for asylum gives reason for concern.

The policies in the Netherlands regarding international migration and migrants are based on the following principles:

- international migration is a permanent phenomenon in modern society;
- host countries may exercise their rights to control and govern the flow of immigrants by implementing admission policies;

- policy is in accordance with the internationally accepted principles for durable solutions:
  - voluntary repatriation
  - reception in the region
  - resettlement elsewhere if no other solution is on hand;
- international migration calls for international collaboration both with regard to the prevention and the governing of migration flows, which should include a constructive dialogue between sending and receiving countries and international agencies;
- international migration calls for integration policies based on the principle of equal treatment for all legally admitted migrants, irrespective of their origins.

Dutch policy objectives to govern migration include:

- a continuing policy of restricted admission, with responsible and rapid procedures for assessing applications for temporary and permanent residence. A policy of selective admission, based on the demographic interests of the Netherlands, is not being considered;
- a humane and effective policy of deportation and/or repatriation, also by involving the International Organization of Migration return agency, for foreign nationals who are not permitted to stay; this also requires the full cooperation of sending countries in taking back deportees;
- the integration of policies on legally admitted foreign nationals, ensuring that those in similar positions are treated equally and enjoy the same legal status;
- measures such as linking residence status to access to public provisions and clamping down on the employment of illegal aliens can help to make the receiving country less attractive to illegal immigrants.
- controlling the ongoing undesired migration flows through implementing relief services in the region of origin;
- the protection of people in need (refugees and displaced persons) who are unable to find appropriate refuge in their own immediate vicinity; recent developments in Europe have given cause for the Dutch government to create several special facilities for displaced persons;
- contributing to the resettling of refugees who cannot find permanent protection from "refoulement" in a third country;

In addition a long-term policy objective is to address the root causes of forced migration flows by supporting policies of sustainable development in both the countries of origin and the host countries. This includes technical and

financial support for programmes aimed at structural poverty alleviation, promoting respect for human rights, and environmental protection and human resources development, in which health and education play a crucial role. The government of the Netherlands also aims to support population programmes whose objectives are compatible with this broader policy of sustainable development.

With respect to the responsibility for dealing with asylum requests, the Supplementary Agreement to the Schengen Treaty (between the Benelux countries, Germany, France, and Spain, including Italy, Greece, and Portugal at a later date) passed on 1 December 1993 is referred to, as well as the so-called 'Dublin Agreement' of the member states of the European Community, that has not yet been enforced.
The main issue remains that international migration can only be controlled by international cooperation and agreements.

An amended version of the Aliens Act is expected to enter into force in two stages on 1 January and on 1 March 1994 after receiving parliamentary approval.
One of the reasons for amending the Act was to accelerate and streamline the admission procedure in order to cope better with the increased inflow of immigrants whilst continuing to take all due care. As far as persons seeking political asylum are concerned the relevant provisions of the Schengen implementation Agreement have been incorporated, such as the possibility of returning asylum seekers to the "Schengen country" responsible for dealing with the application for asylum and the responsibility of the carrier for aliens who arrive without any papers.

Applications for asylum which are clearly ill-founded will in future be filtered out at a very early stage; this procedure will be speeded up and the persons concerned will in principle leave the Netherlands very soon after their applications have been rejected. This will reduce the burden on the facilities available for the reception of asylum seekers.
In addition, jurisdiction in immigration matters will be concentrated in one body, namely the aliens section of The Hague District Court (plus 4 annexes). This will ensure that appeals are handled more efficiently, for instance because the court can consider the substantial question of admission and the question of deportation at the same time.
Finally, the amended Act will provide a legal basis for the practice of granting exceptional leave to remain for humanitarian reasons and the reception of displaced persons in the form of a provisional residence permit.

Such a permit is intended to provide temporary protection in the Netherlands for displaced persons and persons with exceptional leave to remain whilst also enabling them to integrate gradually into Dutch society. Should the situation in their country of origin improve within three years, their status will be withdrawn and they will be expected to leave the Netherlands.

The capacity in the Netherlands to absorb and integrate migrants is completely taken up by those admitted on humanitarian grounds for marriage or family reunification, and by those admitted because of international agreements. The impact of this migration is one of the reasons why the Dutch government has recently formulated stricter policy measures relating to immigration for family reunification and family formation. These are, for instance, measures on the waiting/qualifying period and requirements concerning (financial) resources. It is evident that in spite of the influence of migration on population growth, immigration cannot be viewed or used as an instrument to combat the negative aspects of current population ageing trends.

Integration

In 1980, the Dutch government formally recognised that immigrants already legally admitted to the Netherlands — migrant workers and their families, people from present and former Dutch overseas territories and refugees — were likely to remain and would not return to their countries of origin. On this ground, it pursues an active integration policy for those immigrants who are legally admitted and who settle on a permanent basis. This policy is based on the principles of a pluralistic society and rests on the conviction that the prospects of Dutch society are changing as a result of the admission of relatively large groups from outside Western Europe. The government considers that the ethnic minority groups living in the country form an integral part of Dutch society. This not only implies that the indigenous Dutch population has to accept the presence of these groups, but that the newcomers have to be aware of their new responsibilities, rights, and obligations.

With respect to integration, the government's objective is to create conditions for a harmonious society to which all sections of the population contribute and where each member of society has the right to develop as an individual. Policy is therefore directed, on the one hand, towards mutual acceptance and the prevention and combating of discrimination and racism, and, on the other hand, at the introduction of ethnic minority groups into society, with the emphasis on improving their social and economic position. Policy is based on these two approaches:

- The government aims to eliminate all forms of discrimination in the Netherlands. In this respect legislation has recently been tightened up, and measures were introduced to provide victims of discrimination with better legal aid. Mutual understanding about the cultural backgrounds of different population groups is fostered, using targeted public information campaigns. By law, teaching in Dutch schools has to be multicultural. The value of suffrage is recognised, and non-Dutch residents are allowed to vote in local government elections. Municipal councils are striving to encourage social regeneration in the economically and socially deprived inner cities where concentrations of migrants have settled.
- Language skills are deemed to be important, and consequently a network of teaching facilities has been created which gives special attention to recently arrived immigrants. The Dutch government is concerned to improve access of migrants to the labour market, and to this end vocational training and temporary positive action programmes were developed. Members of ethnic minorities are also actively encouraged to join the police and civil service. Finally, the rules on naturalisation have been relaxed, and the Dutch government no longer opposes dual nationality.

3.4. Policies related to fertility and the family

The government of the Netherlands fully endorses the principle that all individuals and couples should be able to decide freely and responsibly on the number and spacing of their children. Consequently, policies are aimed at enabling individuals and couples to exercise this right and to promote a more child-friendly environment in all spheres of society. Noting that ever-increasing numbers of parents desire to achieve fulfilment in both professional life and parental roles, a more rigorous set of policies aimed at providing both women and men with better opportunities to combine these roles and responsibilities was introduced in the early 1990s within the broader framework of equal opportunities policy. These so-called facilitating policies will be continued and include the extension of paid maternity leave from 12 to 16 weeks, the introduction, in 1991, of unpaid parental leave, and the extension of child care facilities, including after-school facilities.

Since 1990, the government has been stimulating the expansion of child care facilities in the Netherlands through a Child Care Incentive Scheme, to last for four years. The budget for this scheme increased from 145 million guilders in 1990 to 260 million in 1993. The reason for implementing this scheme was the low share of working women and the high percentage of women leaving the labour force at the birth of their first child. In 1991, there

were 39,000 child care places (including after-school facilities), which were used by 80.000 children (some 4.3% of 0-4 year old children and 1.3% of 5-12 year old, respectively).

The goals of the Child Care Incentive Scheme are:

- to create more opportunities for women to combine a job and raising children;
- to extend the organized child care services in the Netherlands by 49,000 places;
- to create approximately 10,000 additional jobs in the area of child care services.

At the end of 1992, a first evaluation on the results of this child care policy was published, which showed that child care in the Netherlands has increased in all respects since 1990. The capacity has doubled within two years, the number of municipalities with child care services has risen from 200 to more than 500, and the number of facilities from 900 to 1,500. At the same time, there has been considerable growth in the number of child care places which are rented to both public and private employers to be used by their employees. On the basis of this evaluation, the government decided to further stimulate child care through public funding for a few more years. The main goals in the new policy on child care are:

- a change in the relation between the number of government subsidized child care places and the number of places provided through employers. The current 2:1 ratio will be reversed in the coming years, which will allow an increase of about 10,000 to 13,000 places;
- an improvement in the link between demand and supply of child care places provided through employers;
- a clear distribution of responsibilities between the various parties involved: national government, local government, employers, and employees;
- an increase in the financial contributions by parents.

Many of these issues will be made more concrete in a new Incentive Scheme and in the new Welfare Law.

Another aspect of the facilitating policies concerns parental leave. All parents who have been working for an employer for a minimum of one year have the right, since 1 January 1991, to take unpaid, part-time parental leave for a period of six months, as long as their child is not yet four years of age.

Employers and trade unions may negotiate specific (paid) arrangements within the framework of the law. Part-time employment both in the private and the government sector, also plays an important role (to date, mainly for women) in the combination of paid work and parenthood. For this reason, the government stimulates part-time employment; also the legal status of part-time employees has been improved.

Equal opportunities policy is predominantly aimed at women. In the Netherlands, in households where both partners work, women still do more of the housework than men. Due to the further rise in female labour force participation a redistribution of paid and unpaid work is deemed desirable. The government's role in this mainly consists of removing obstacles, creating conditions, and directly promoting such a redistribution. If unpaid and paid work are to be successfully redistributed, it is crucial that men also take part in these schemes. As yet, insufficient progress has been made in the field of men participating in unpaid work or taking on greater responsibility for child care and household activities. Government policy will promote this redistribution of unpaid employment in the framework of equal opportunities policy.
The responsibility for the content and the realization of more flexibility in the labour organization, working hours, and working conditions is initially the domain of employers and trade unions.

In addition to the policies mentioned above, the government wants to prevent that measures which are introduced in the framework of socioeconomic and fiscal policy negatively affect the perceived value of children or increase the costs of children; child allowance schemes exist and will be continued. Although the financial and fiscal climate in the Netherlands is gradually becoming more oriented towards double income families, it still favours single-earner families with children. Generally speaking, the shift in Dutch society towards individualization is also reflected in social security schemes and fiscal policy. Much attention has been paid in recent years to ensuring that men and women are treated equally and as individuals on issues related to incomes and benefits, and this approach has been incorporated in reformed social security legislation.

While the Netherlands is still lagging behind some other European countries with respect to facilitating policies, Dutch society has become more child-friendly in the past years.

3.5. Policies related to contraception and abortion

Population-related policies in this domain include the provision of easily accessible family planning facilities, as well as public information campaigns aimed at promoting awareness of the various forms of contraception. Contraceptive use is widely accepted throughout Dutch society. Contraceptive methods available in the Netherlands include the pill, IUD, condoms, diaphragm, hormonal injections, hormone-releasing subcutaneous implants, as well as male and female sterilization. No age limits nor limits with respect to the number of children are imposed for using contraception, nor is the consent of parents or spouse required. Condoms are freely available without a prescription. Several contraceptive methods (e.g. pill, IUD, sterilization) are either partly subsidized or fully covered by medical insurance schemes, and the same applies to measures concerning the treatment of infertility. Education and information on contraception, as well as counselling and quality family planning services are provided and supported by educational and medical institutions. Private family planning associations, partly state-subsidized, also play a substantial role in this respect, for example, in providing medical advice and counselling on birth control and sexuality, Sexually Transmitted Diseases, and sexual harassment. People under 18 are entitled to reduced rates for the use of these facilities which are easily available throughout the country. Services provided also include family planning information and training programmes for general practitioners. The teenage pregnancy rate in the Netherlands is among the lowest recorded in the world. Public information campaigns on safe sex are primarily aimed at preventing sexually transmitted diseases, including AIDS. Policies and provisions regarding contraception are also fostered to reduce the number of induced abortions.

Induced abortion is not considered as a means of family planning, but as a last resort in case of failing contraception. Facilities for legal abortion are solely provided to protect the health and wellbeing of women. Under the Termination of Pregnancy Act (1981), legal abortion is available in the Netherlands in case of 'distress', both physical and social. Parental consent is required for women under 18, but in compliance with general medical practice, exceptions to this rule are possible. The costs of abortion are generally covered by medical insurance schemes. The performance of abortion by untrained physicians or by trained physicians operating outside licensed clinics or hospitals is punishable under law. Since 1985, there is a legal obligation to register abortions.

Current abortion rates for the Netherlands are among the lowest in the world as well; the 1991 abortion rate was 5.6 per 1000 women 15-44 years of age.

In 1991, 30,306 induced abortions were performed in the Netherlands, mainly on Dutch residents, but also on women from neighbouring countries like Germany and Belgium. The decline in the number of abortion patients from abroad may largely be explained by the increasing availability of abortion facilities in their countries of residence. From 1984 to 1990, the number of abortions performed on Dutch residents was relatively stable at about 18,000. In 1991, this figure increased to 19,568, probably due to a decline in the use of the pill, and an increase in prenatal diagnostics. Women from ethnic minorities are heavily overrepresented among abortion patients: in 1990, almost 40% of abortions among Dutch residents was attributed to migrant women. Most abortion patients practised contraception preceding their unwanted pregnancy; in 1990, only 25.8% did not use any means of contraception.

3.6. Policies related to ageing and the elderly

The ageing of the population of the Netherlands will continue and step up in the coming decades, with increasing numbers of elderly and especially the very old. Policies related to ageing and the elderly cover various policy domains, since the ageing process affects a wide variety of social issues, including the growing demand for social security and (health) care provisions, the changing proportions of active and inactive people in the labour force, and the wellbeing of the elderly.

The main goal of Dutch elderly policies is the integration of the elderly into society. This implies that the elderly should be able to participate fully and independently in society, according to their specific possibilities and desires. The prerequisites for this kind of participation include suitable income, housing, and good health. It is recognized that the elderly are certainly not a homogeneous group. There are many differences among the elderly with respect to their possibilities and desires, which will be taken into account as much as possible.

An important distinction among the elderly is age. Generally speaking, elderly persons to about 75 years of age in the Netherlands do not encounter many problems. From approximately age 75, there is usually a decline in bodily functions and physical abilities, causing an increasing demand for care.

The possibility to participate in society is mainly determined by the nature and extent of requiring care, the availability of informal and formal help, the financial situation, and housing. Some of the elderly will be able to find satisfactory solutions themselves, even in the case of a rising demand for care. Others, however, will be less able to do so. Policy on the elderly is

mainly aimed at the more vulnerable group of elderly, including the elderly from ethnic groups.

Some characteristics of the group of more vulnerable elderly are (usually a combination of) requiring care due to handicaps, a low income, and few social contacts. A large proportion of this group consists of single, often very old females. The resources of the government are mainly in the area of (health) care, income, and housing. In addition, the government is involved in preventing age discrimination, a reevaluation of old age, and the stimulation of social network formation. The importance of a cohesive policy on the elderly at the local level is recognized as well, for which additional financial resources have become available since 1991. Main areas of attention include facilities for the handicapped, extra transport and adapted means of transport, and education. The promotion of the independence of the elderly plays a key role here.

Ageing and the labour force
The ageing process also effects the labour force. With respect to the potential labour supply, the main trends in the past decade included:

- diminishing numbers of young people (15-24 age group) with constant employment rates;
- growing numbers of older people (50-64 age group) with decreasing employment rates, and
- constant employment rates for men and increasing employment rates for women.

For the immediate future, constant but low shares of the young with constant employment rates are expected and a further growth in the share of the elderly with growing employment and further increases of female labour force participation.
In 1991, 64% of young males and 62% of young females (in the 15-24 year age group) participated in the labour force. Of the male and female adult population (25-49), 96 and 64% respectively belonged to the labour force, while among the 50-64 year age group, this was only 62 and 26% respectively. Between 1960 and 1990, the mean age of the potential labour supply (all persons in the 15-64 year age group) was almost constant, varying between 36.9 and 37.6 years. Between 1990 and 2000, this age will rise to 39.2 years, but after the turn of the century a stabilization may occur.

A central issue in ageing policies concerns the fostering of labour force participation of the elderly.
Reducing avoidable outflow from the labour force by combatting unemployment and disability and by making early retirement schemes financially less attractive and also by improving labour market conditions and human resources policy, should stimulate the continued participation of the elderly on the labour market.

The social security system should be modified gradually to suit new circumstances, by introducing measures such as more flexible pension schemes. In the long term it will be necessary to maintain solidarity between the generations while at the same time the elderly should be enabled to take greater responsibility for old age provisions themselves.

A recent study from the Advisory Council on Government Policy (WRR) suggested that by the year 2015 the willingness of working people to fund collective pension schemes would be under strain, and society must make the necessary adjustments to accommodate this potential gap between resources and demands. The Dutch government endorses the view that future developments in the labour market will necessitate to continue the fostering of labour force participation, especially among women and older people, also to meet the increase in social security costs arising from demographic trends. A particular issue is the need for additional resources to solve labour supply shortages in the care sector. While the number of elderly in need of care is growing, the labour supply in this sector is dwindling, partly due to less favourable working conditions.

Increased labour force participation of the elderly force will require changes in attitudes of employers and older employees alike. Government, employers' organisations and unions will have to agree on structural changes in the regulation of the labour market. Flexibility will be the key. Ways of achieving this include age-oriented human resources management, recurrent education, and greater job mobility. The government is opposed to unjustified discrimination on the basis of age.

3.7. Policies related to population and environmental issues
In 1983, the government expressed as its view that population density must be considered as one of the determinants of environmental pressure. Consequently demographic indicators were included in the preparatory studies for the National Environmental Policy Plan (NMP). The interrelations between environmental pressure, population, production and consumption

patterns, and economic development should however be more thoroughly incorporated in the development of governmental policies. The implementation of Agenda 21, which was adopted by the UNCED, is also important in this respect.

The impact of demographic trends on the environment should be seen in relation to other circumstances. The Netherlands, for instance, has the highest car use (kilometres driven per capita) in the European Community, and tops world statistics for applications of artificial fertiliser and density of livestock farming. The Netherlands also happens to straddle the mouths of three of Europe's largest rivers, which are strongly polluted, by the bordering countries, and has one of the world's densest concentrations of chemical industries at the mouth of the river Rhine.

A closer look at the relationships between environment and population in the Netherlands shows that demographic developments have had far-reaching consequences for the environment in several ways. For example, a shift in land use took place in the period 1970-1985. Due to population growth, the amount of built-up areas rose at the expense of areas for forests, nature, and agriculture. Moreover, the area for traffic and recreation increased considerably, reflecting the more intensified mobility and activity patterns of people (*Table 1*).

Table 1. Land use in the Netherlands in 1970 and 1985, per cent or total amount of land

Sector	1970	1985
Built up area	6.6	8.4
Traffic	1.8	3.6
Recreation	0.4	2.1
Agriculture	69.7	64.2
Forest/nature	13.6	12.1
Water	7.8	9.1
Other	0.2	0.4
Total (in km^2)	36,620	37,330

Source: NCBS, Environmental Statistics, 1992.

Due to high population density and related urbanization, a strong competition for space exists between the various social functions (industry, services, agriculture, nature, leisure), especially in the Randstad, the most urbanized Western part of the country where population density reaches 1000 inhabitants/km^2.
Commuter traffic causes congestion and has adverse environmental effects such as noise and air pollution.

The aim of Dutch environmental policy, as set out in the NMP, is to maintain the capacity of the environment to support sustainable development. The policy works on the principle that environmental problems should be solved within a single generation. The concept of sustainable development is based on three principles: the closing of production and waste cycles, the conservation of energy, and a preference for quality over quantity.

The NMP advocates an integrated approach to eight major environmental issues: climate change, acidification, eutrophication, diffuse pollution, waste disposal, nuisance and inconvenience, parching of land and squandering of resources. Long-term environmental objectives to be achieved by government and various target groups are defined for each of these issues. They are based on projections of desired future environmental quality. For most of the issues, the NMP also sets interim targets for the year 2000 or 2010.

The NMP also adopts the premise that every citizen should be aware of his responsibilities to the environment and is expected to act accordingly. The government, target groups and citizens all have a duty to reduce environmental degradation. An important population-related feature of Dutch environmental policy is the promotion of sustainable patterns of consumption. This is achieved by making people aware of the environmental consequences of how they buy, use and dispose of consumer goods. Because consumers are not a uniform group, it is difficult to draft environmental agreements and legislation for them. The Dutch approach is to use three other kinds of mechanism instead. Public education campaigns are used to raise and mould public awareness about the environmental consequences of consumer behaviour. Financial instruments — such as including environmental costs in the purchase price — are used to encourage environmentally friendly behaviour on the part of the consumer. And finally, consumers are given practical opportunities to act responsibly, through schemes like 'bottle banks' for separate waste collection, and environmental information on product packaging. The government places great store by carefully planned urban development which uses scarce land resources wisely. Town planning should

therefore follow the tenets of sustainable development. The Fourth Policy Document on Town and Country Planning, approved by parliament in 1993, adopted the principles of spatial quality and sustainable development. Reducing the distances people commute to work by optimal planning of housing and working areas is a major part of this policy. The preservation and where possible extension of nature reserves are also important objectives.

Achieving these policy objectives is not easy. A recent study (Nationale milieuverkenningen 1993-2015) concluded that the environmental impact per unit GNP, as well as per capita, decreased for most of the environmental problems. However, continuous population growth, production, and consumption are causing a tendency towards increasing emissions and waste generation, if technological and organisational improvements are not realised on a permanent basis. Until now, emissions and waste could be reduced at relatively low costs. With continued population and economic growth this will change and higher costs will be necessary to reach the goals in 2000, as set out in the environmental policy.

The interactions between demographic developments, notably the increase in the number of households, and a considerable change in consumption patterns have caused an even stronger negative impact on the environment. Consumption has both increased and changed greatly due to improved living standards and technological developments. Consumer durables are replaced more frequently; there has also been a sharp increase in the amount of space required per person. Energy consumption per capita has risen even more than would appear from the increase in consumption per household because there are fewer persons per household on average. Although electricity consumption per appliance has generally decreased, the number and use of these appliances has increased. Leisure activities also consume more energy (e.g. audio-visual appliances, travelling, notably by air, etc.). Water consumption is increasing each year.

International aspects

The Dutch economy is very dependent on other countries, both as a source of raw materials and as a source of income from exports, and the implications of this far exceed the fact that, in dealing with environmental problems, the Netherlands has only limited room to manoeuvre. It also

implies that Dutch society can only sustain its current level by using the 'ecoscope'[1], or environmental carrying capacity of other countries.
The industrialised countries, including the Netherlands, are largely responsible for the degradation of the world environment. Changes in patterns of production and consumption are needed in order to redress excessive use of the global ecoscope and strike a more even balance in the future between use of the ecoscope and the size of the population. The industrialised countries are in a much better position to carry through such a structural change in policy because they enjoy a higher standard of living and have the necessary financial resources. The Netherlands therefore will continue to use international fora, and the OECD especially, to argue the case for sustainable patterns of production and consumption.

4 | International cooperation in population

4.1. National policies and priorities in international population assistance
The policy document, 'A World in Dispute', the Dutch version of which was published in September 1993, pays specific attention to the population issue as one side of a population-environment-development triangle. The main reasons for supporting the efforts of developing countries are the following: the desirability of curbing population growth and the necessity to meet individual needs for birth control. This builds upon the ideas set out in the 1990 policy document 'A World of Difference, A new framework for development cooperation in the 1990s', which advocates an active population policy and family planning activities in developing countries. The sections on population in both documents elaborate upon the 1988 policy memorandum on the population issue and development policy in the framework of the Dutch aid effort. This report, which became one of the pillars of Dutch policy on population and development cooperation, called for greater emphasis on population policy in bilateral cooperation. The original idea that a low-key approach should be adopted with regard to family planning at the bilateral level, a viewpoint which had prevailed since the 1970s, was finally abandoned at the end of 1992. This was confirmed in 'A World in Dispute', which states that more attention is now being paid in Dutch development policy to bilateral cooperation in the field of family planning than was previously the case. This is not to say that aid flows will now be diverted

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1 Ecoscope: an indicator of the amount of pollution and damage the earth environment can take without losing its ability to recover.

from multilateral to bilateral activities. The Netherlands will continue to make extensive use of multilateral aid channels in the future, in addition to bilateral and multi-bi cooperation and national and international NGOs.

The following principles apply to population policy:

- The Netherlands is prepared, upon request, to provide technical and/or financial assistance in the formulation and/or implementation of policies to those developing countries which have an active population policy of their own.
- Population activities should be integrated wherever possible in broader, general development programmes or implemented in conjunction with them.
- Population policy covers a broad area and encompasses, among others, the following elements: institutional development and cooperation, capacity building and training, demographic research, data collection and analysis, and reproductive health care, including the formulation and implementation of family planning programmes which may include supplying contraceptives and conducting research into birth control methods, Information, Education and Communication (IEC) programmes, monitoring and evaluation.
- Activities in the field of population should help to improve the position of women. The Netherlands' aim in this respect is to maximise cooperation and coordination between donor institutions and local and regional NGOs. Scope should also be created for the participation of women in the formulation and implementation of policy at all levels.
- When formulating and implementing population policy, respect should be shown for local customs, while taking into account universal human rights.
- The Netherlands places family planning activities in the broader framework of reproductive health care. This principle, and the reproductive rights of individuals, especially women, lies at the heart of Dutch policy. Reproductive health care is understood to mean health care which aims to eliminate the causes of maternal morbidity and mortality as a result of pregnancy, delivery and abortion, promote breastfeeding, treat infertility, prevent and treat Sexually Transmitted Diseases and AIDS and discourage harmful traditional practices such as genital mutilation, child marriages and dietary taboos.
- Reproductive health care, including family planning, should preferably be anchored in the broader context of primary health care services.
- The use of family planning methods should be entirely voluntary and based on informed choice. Coercion of any kind is unacceptable. Incen-

tives and penalties are also frowned upon. In some cases it may be useful to introduce compensation schemes and/or refund expenses.
- The needs of people in developing countries, especially women, should form the starting point for all reproductive health and family planning activities.
- Reproductive health care should be accessible to all, regardless of age, sex, ethnic origin or marital status.

4.2. The nature and character of population assistance/trends in international population assistance

The Netherlands has concentrated to date on supporting population programmes through multilateral channels. This path was chosen because it was a way of contributing in a politically neutral manner to activities in what was previously — and often still is — a highly sensitive area. By making use of multilateral channels the Dutch government was able to support national population programmes without creating the impression of wanting to impose its own policies, something which would be politically undesirable at both the national and international level.

Accordingly, the Netherlands has been a major donor to the United Nations Population Fund (UNFPA) ever since it was established. Apart from a general contribution, which has risen substantially over the years (1982: NLG 34.5 million, 1993: NLG 58 million), putting the Netherlands in second place in the league table of donors, the Netherlands has, since the 1980s, supported country-specific activities by UNFPA via the multi-bi system. The 1991 policy document on multilateral development cooperation evaluated Dutch cooperation with UNFPA and other organisations. The general trend was positive. Dutch policy is broadly consistent with that of UNFPA, especially in the matter of gender.

Support has also been channelled through international organisations such as the World Health Organisation (notably the Special Programme of Research, Development and Research Training in Human Reproduction) and NGOs such as the International Planned Parenthood Federation, the Population Council and the International Union for the Scientific Study of Population. Finally, the Netherlands gives institutional support to women's organisations and networks which conduct research and lobby for increased political, institutional and financial commitment to women's concerns and priorities in the field of population and development.

4.3. Experiences in international cooperation

Although the Dutch aid effort in the field of population has to date been predominantly multilateral in nature, the Netherlands has also had some experience with bilateral and multi-bi cooperation in this field in Asia, from which lessons may be drawn for the future.

The Dutch government supported the Indonesian Family Planning Programme in the framework of bilateral development cooperation for almost ten years. Aid focused on family planning for a number of reasons, one important reason being that technical support in reinforcing population expertise in a more general sense was already being provided by other donor countries. The second reason was that the Netherlands could start cooperation in the field of the supply of contraceptives, for which the Netherlands had a high quality product to offer. In the early 1980s the National Family Planning Coordinating Board of Indonesia became a counterpart organisation and cooperation with this organisation became the focal point for the Dutch aid effort in this field.

Aid activities were gradually extended and intensified, developing in step with the Indonesian family planning programme. Whereas support was limited in the beginning to supplying contraceptives, the following activities were gradually developed: technical and financial support for the local manufacturing of contraceptives, support for a programme of income-generating activities by women's groups including the training of family planning personnel, and support for the International Training Programme, which was part of the Indonesian Family Planning Programme.

One conclusion that can be drawn from our bilateral activities in Indonesia, is that the nature of cooperation and the form that support takes are strongly influenced by the quality of the recipient country's own programme. In this case, no help was needed in building up a family planning programme. If a developing country has a good-quality programme but lacks the necessary resources, it is financial support that is needed most. Technical assistance can make a valuable contribution to innovative activities and help to raise the standard of the programme. A continuous policy dialogue between donor and recipient provides an opportunity for reconciling policy priorities and reaching a joint decision on where projects should be located. A dialogue of this kind is also important from the point of view of integrating aid activities by the donor country in the field of family planning and population with its activities in other areas.

Another lesson which has been learnt is the importance of donor coordination. However difficult this may sometimes be, it is of the utmost importance for all parties that the activities of the various donors are coordinated and that they learn from each other's experience. The best solution is for the developing country itself to take the initiative and guide the whole process.

One example of a mechanism for facilitating a coordinated policy dialogue between the government of the recipient country and the donors is the donor consortium set up by the World Bank in Bangladesh to support the Bangladeshi government's policy on family planning and reproductive health care. The Netherlands has been a member of this consortium since 1986. Over the years, what began as a vertical family planning programme with the single aim of controlling population growth has grown into a programme in which family planning, mother and child care and preventive and curative primary health care all complement each other.

4.4. Unresolved issues in international cooperation

In the opinion of the Netherlands there are two matters which have not as yet been satisfactorily analyzed and which deserve further attention, namely the relationship between population issues and environmental degradation, and the treatment of the subject of migration.

At the UNCED conference a tentative attempt was made to place the relationship between population and sustainable development on the agenda for discussion. The relationship between population pressure, production and consumption patterns and environmental degradation is not at all clear-cut and very complex. The population factor will always have to be taken circumspectly into account in the formulation of policy on sustainable development. It is crucial that the share of the ecoscope taken up by the industrialised world be added to the equation. Sustainable development is a matter for both North and South. Further action needs to be taken in this sphere and the Dutch government intends actively to promote this.

The second topic is that of migration. This is by no means a recent phenomenon. People have always moved about between as well as within the North and the South, and it is something which should be approached in a matter-of-fact way. The growth in the number of migrants in recent years is linked *inter alia* with the high rate of population growth in developing countries, the number of conflict situations around the world and the situation on the labour market. From a long-term point of view, the flows

of migrants will only stabilise and possibly shrink in size if the economic outlook and the political situation in the countries of origin improve sufficiently. Any attempt to stem the tide of migrants should therefore be geared to tackling the root causes. International cooperation in various forms, including support of population programmes, can play a part in tackling these problems at their source. An open debate on migration, based on a better knowledge of the problems involved, is essential for both the countries which the migrants leave behind and those in which they settle.

4.5. Future policies and priorities for international population assistance
In the light of the policy intention of improving family planning and reproductive health care services, a policy document on this subject was published in the autumn of 1993. Family planning policy, which is rooted in the general social development policy of the recipient country, should give priority to the reproductive rights of women especially, respect human rights and aim to alleviate poverty. A major effort is required in order to satisfy the as yet unmet need for safe and effective contraceptives and to improve and extend family planning and reproductive health care services.

Dutch policy will continue to focus on promoting reproductive health and reproductive rights, with special emphasis on the position of women. Efforts will also be made to involve men in reproductive health programmes. In this respect, research initiatives on the development of male methods and of women-friendly contraceptives, which have the additional benefit of protection against STDs/AIDS, should be enhanced. An integrated approach, providing a broad package of reproductive health services as part of primary health care, is preferred. This permits better streamlining of care and ensures efficient use of the available infrastructure and personnel. A decentralised structure is seen as preferable, with services organised at provincial or district level as this increases the scope for participation by the local population (men and women) in the formulation and implementation of programmes to suit their needs.

With regard to the target groups at which family planning and reproductive health care programmes are aimed, the Netherlands will continue to put the autonomy of women first; here reference is to be made to the Convention on the Elimination of all Forms of Discrimination against Women as an important human rights instrument. In view of the alarming rise in the number of teenage pregnancies worldwide, the Netherlands is emphatic that reproductive care should reach adolescents as well. Single men and women also have a right to information about family planning methods and access

to contraceptives. The involvement of men in family planning programmes is important in terms of both responsible parenthood and responsible sexual behaviour. The Netherlands intends to pay extra attention to the reproductive rights and needs of vulnerable groups in society.

5 | Summary and conclusions

Population growth is declining in the Netherlands due to sustained below-replacement fertility, which is partly counter balanced by decreasing mortality and, more significantly, by continued immigration. Nevertheless the population of the Netherlands will continue to increase for a considerable time to come, partly also a consequence of the still relatively young age structure of the population. Though still relatively young, the population of the Netherlands is ageing, a trend that will gain importance in the coming decades. The number of households is increasing at a higher pace than population growth, while the average household size is shrinking.

The Netherlands does not have an explicit population policy, aimed at direct intervention in demographic processes, but genuine awareness that population trends exert a considerable influence on society and touch upon a wide variety of policy issues, exists. Also the indirect demographic effects of various population related policies are recognized. A careful monitoring of population trends and related policies is aimed at.

The general aims and thrust of the World Population Plan of Action (WPPA) are still valid as a basis for population-related activities, but in view of current and future demographic trends, future activities should place more emphasis on international migration issues and the position of ethnic minorities and migrant populations, including the root causes of migration and the regulation of migration flows.

Also the intricate interrelations between population, production and consumption patterns, environmental pressure and economic development deserve more attention.
As regards fertility a shift in focus from target oriented policies to policies which set out to enhance the free and informed choice of individuals and couples ('child by choice') should be stressed.

The integration of family planning programmes in basic health care and reproductive health policies underscores this shift, as does the conviction that

family planning activities should respect local cultural norms and values, while at the same time safeguarding universal human rights.

In keeping with the gender perspective, more emphasis should be placed on the solidarity between the genders, and the subsequent sharing of responsibilities with respect to earning an caring by men and women, which implies a more active participation of men in parental responsibilities.

As regards the ageing of population, the strengthening of the solidarity between the generations, both at the macro level of society and at the micro level of the family, should be stressed. Fostering the independence and social participation of the elderly, taking into account the valuable contribution elderly people make to society, is consistent with the increasing possibilities for a growing share of the elderly to safeguard their position due to ameliorating socioeconomic and health conditions ('elderly for elderly').

With reference to international cooperation a further strengthening of international solidarity in view of growing interdependencies and shared responsibilities, will have to be aimed at, based on mutual respect.

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