Timing children at a later age: motivational, behavioural, and socio-structural differentials in the individual decision making process of older mothers

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2 The demographic and societal context of individual fertility decisions

2.1 Introduction

In this chapter, we describe the demographic and societal context in which individual Dutch women make their fertility decisions. This context is not a direct research topic in itself, but indirectly it exerts an important influence on the individual level decision making concepts that are at the focal point of this study.

The first section deals with the demographic context, or more precisely with the developments over time and the regional differences of fertility age distribution in the Netherlands. The second section of this chapter deals with the societal context, which constitutes the normative decision making climate in which individuals have to make their own decisions. We show that there are a number of topics in the field of socio-economics, culture, and technology that contribute to this societal decision making climate.

2.2 Features of the age distribution of fertility

Several indicators on the aggregate level are available to describe the age distribution of fertility. These indicators all have their advantages and disadvantages. Here, two aggregated period measures are used: the mean age of the mother at childbirth and the age specific fertility rates. For an indicator of the timing of the first child of post-war cohorts, the proportion of childless women by age has been used.

The mean age at childbirth and age specific fertility rates are influenced by the level of the total fertility rate. A high total fertility rate means that, in the absence of any decrease in childlessness, more births of higher birth orders occur. Women of higher parity are somewhat older, because having children takes time. We therefore consider briefly the changes in the total fertility rate over time before turning to mean age at childbirth, age specific fertility rates, or cohort childlessness by age.

Fertility in the Netherlands in the current period is low. Significant changes have occurred since the post-war period in the general demographic trends of family formation and in fertility in particular (Van de Kaa 1980). Following a slight rise in the total fertility rate after the war, reflecting increased family life values, a rapid decline occurred. The total fertility rate dropped from about 3.0 to about half that level. After 1983, when the rate reached its all-time low of 1.47, the fertility rate increased slightly, resulting in a fairly stable level of about 1.6 since 1990 (Statistics Netherlands 2000a).

Fluctuations of the period total fertility rate can be explained by the interaction of many complex societal and individual processes. A decrease in the rate can be explained by a
decrease in the number of children in a family, but it can also be influenced by period fluctuations in women’s age at childbirth (postponement). In order to gain insight into changes in the distribution of the occurrences of births during women’s reproductive lives, it is more appropriate to look at mean age at childbirth and at age specific fertility rates than at the total fertility rate.

2.2.1 Mean age of the mother at childbirth of first and higher birthorder children

The mean age\(^1\) of mothers at childbirth is an aggregated parameter of the fertility age distribution, which at the same time provides insight into the timing of fertility on the individual level. A woman’s age at childbirth is an important feature of her fertility life course.

Figure 2.1 Mean age of mother at childbirth by birth order, the Netherlands, 1950-1999

In figure 2.1, the mean age at which women have children in the Netherlands is presented, for all birth orders taken together as well as for birth orders one, two, and three separately. Concern is often expressed about the scale and the rate of the recent increase in this

\(^1\) The mean age at childbirth used in this chapter is based on the age specific fertility rates of one-year age groups. Therefore, the mean is not influenced by the age composition of the female population present.
fertility indicator (Beets 1992). Nevertheless, depending on the choice of the width of the time span studied, the conclusions about scale and rate of increase must be quite different. The mean age at childbirth of all children has shown a spectacular increase since 1975. When, however, the trend in the mean age at childbirth is observed from 1950, it is evident that the recent rise was preceded by a considerable fall. From 1950 to 1975, the mean age at childbirth of all children fell from 31.0 to 27.4, which was followed by a rise to 30.6 in 1999 (Bosveld 1996; Statistics Netherlands 1999, 2000a). The 1999 level has not reached that of the immediate post-war period, which leads us to conclude that the current mean age is high indeed, but not particularly unusual for the Netherlands. However, the conclusion drawn from these results ought not to be that the underlying mechanisms causing the high mean age are the same as in the 1950s. There is an important difference in the birth order composition of the two periods, and the total fertility rate between the two periods differs considerably as well. In the previous section, it was mentioned that the fertility rate in the post-war period was about 3.0, while at present it fluctuates around 1.6. Thus, mean age at childbirth in the post-war period was influenced to a much greater extent than it is today by the ages of mothers of children of higher birth orders.

For birth orders 1 to 3, the current mean age of a mother at the birth of her child is higher than it has ever previously been, which supports the idea that the high overall mean age at childbirth in the immediate post-war years was caused by a parity composition effect. In that period there were relatively more births of higher birth orders, whereas the recent high mean age at childbirth is predominantly caused by the later timing of births of lower birth orders.

The mean age at birth of the first child was at an all-time low in 1971, from which point it started to increase. The mean age at second birth started to increase from its low point in 1974; the mean age at birth of the third child began to rise in 1979. These data suggest that the postponement of the birth of first children caused the later delays of second and third children. The average lengths of the second and third birth intervals have, at 2.9 and 3.5 years (Statistics Netherlands 2000a), been very stable. The time lags between the years in which the birth-order-specific mean ages at childbirth started to increase are somewhat greater than these 'standard' birth intervals, 3 and 5 years respectively. It would seem that, apart from the indirect effect of the postponement of first children on the delay of second and third children, there may also have been an independent effect of the postponement of second and third children.

2.2.2 Age specific fertility rates

The age distribution of fertility can be described in a more detailed way by using sets of age specific fertility rates. However, the total fertility rate influences the age specific fertility rates. A high total fertility rate correlates with high (and sometimes rising) rates among older age groups, because it is from them that the higher birth orders will be born.
Since the previously mentioned changes in the total fertility rate ceased in 1975, and the Netherlands has had a fairly constant level of fertility since that time, we have considered the changes in the age specific fertility rates from 1975 till 1999. For this period, the changes in the age distribution of fertility can be contributed to a great extent to cohort timing differences, because large differences in the birth order composition are not plausible.

Figure 2.2 Time series of age-specific fertility rates, the Netherlands, 1975-1999

The distribution of the age specific fertility rates in the period 1975-1999 in the Netherlands reveals a dramatic shift towards the older age groups (figure 2.2). Age groups 15-19 and 40+ have low fertility levels and, although during the 1975-1999 period there was some fluctuation, it was not spectacular. The most important decline in teenage pregnancies had already occurred before 1975, but its level has never been really high (age specific rate of 22.6 in 1970). The rates for age group 40+ remain at a low level. The rise that was expected as a result of improved medical fertility techniques has not been great. The fecund period in a woman’s life is generally assumed to lie between her fifteenth and fiftieth years of age. Women do not use this age range to the full extent. Fertility in the Netherlands, as elsewhere, is concentrated in the age range 20-34.
The rates for the 20-24 year olds dropped from 97.9 in 1975 to 34.6 in 1999. The rates for women aged 25-29 dropped too, although not to the same extent (from 137.6 to 101.6). The two other age groups above 30 years old show an increase, the most impressive being that of the 30-34 age group: a dramatic increase, from 60.6 in 1975 to 130.4 in 1999. Women aged 35-39 reached their lowest level in 1978, at which point a rise started, reaching a level of 53.1 in 1999.

### 2.2.3 Age patterns of successive birth cohorts

A detailed overview of cohort fertility is given by Bosveld (1996). She gives the percentages by age for women with at least one child born in birthcohorts since 1940 until 1965. At every age, each successive cohort has a lower proportion with at least one child, which demonstrates that, from cohort to cohort, the start of childbearing has been postponed. The women born just after the war started this trend.

For percentages of women with at least two or three children, similar graphs can be drawn from which the same pattern emerges. Those percentages are of course lower, and distributed even more towards the higher ages, with shifts of the parallel curves to the right-hand side of the age distribution (see also Bosveld 1996).

Consideration of a mother’s age at first birth for separate birth cohorts has provided us with more insight into the individual timing of fertility. We have a cohort-based confirmation of the trend that can be observed in the age specific period data.

### 2.2.4 Summary of features of the Dutch age distribution of fertility

The age distribution of fertility in the Netherlands has undergone some important changes during the last three decades. The changes that reflect the increase in the age at childbirth can be illustrated in three ways.

First, since 1975 the mean age at childbirth has risen spectacularly. Second, this rise coincides with a shift in the pattern of age specific fertility rates in such a way that a broad peak in the curve has developed, stretching over the two age groups 25-29 and 30-34. At the moment, the age group 30-34 has even become the most important in their contribution to the overall level of fertility. Third, the trend of rising age at childbirth is supported by the observation that all subsequent post-war birth cohorts started their fertility career on average a little later than their immediate predecessors.
2.3 The societal context

The influence of the societal context on individual fertility decisions is very important. Planning and having children is highly susceptible to societal norms and even laws. This section includes an inventory of these societal influences on individual fertility timing decisions. We commence with a strong example of such an influence which is specific to the Netherlands, given by Niphuis-Nell (1992). This example illustrates in a nutshell the complexity of the societal influence on fertility decisions.

Niphuis-Nell describes the Netherlands as a 'first-child-shock country', that is to say, a country where women leave the labour force when they have their first child. Even in comparison with other such countries the Netherlands has a high age at motherhood. Niphuis-Nell argues that the core of the Dutch problem is that a discrepancy has grown up between, on the one hand the slow development of child day-care and parental-leave facilities and, on the other hand the fast rise in the career ambitions of young women resulting from their higher educational levels. The establishment did not adapt to the extremely fast liberalization of attitudes and behaviour in the areas of family and motherhood, because of the historically strong family values in the Netherlands. This discrepancy is a feature that makes Dutch society stand out in the European context, and it explains the high age at childbirth in this country. Motherhood opinions of individual Dutch women may have changed over the last few decades, but society did not provide the circumstances to permit modern behaviour to be acted out. Dutch mothers are therefore faced with an enormous combination problem.

A combination of three societal elements of different spheres of life constitutes the context which is relevant for the timing of fertility (Van de Kaa 1987). Cultural changes are in the direction of equality, personal freedom, value pluralism, and individualism. The combination with socio-economic characteristics (such as a higher female level of education), encourages women to opt for an education and a career when they are young. They may have children when their education is completed and they have attained good career opportunities. But, at the same time, these factors make it difficult for women to combine the two spheres of life. Technological changes make it possible to avoid pregnancy, or to plan a pregnancy at the 'right' time.

These societal contexts have an effect on an individual who is deciding about her fertility life course. Figure 2.3 represents our view of how each of the contexts influences a corresponding determinant of decision making at the individual level. The focus of this study is on the individual level, and the relationships between constructs within the inner oval of figure 2.6 are elaborated in later chapters. For the moment, it is important to stress the influence of the societal context on individual timing behaviour. Our approach is top down, from macro to micro level, so we ignore the feedback loops linking the individual level to the macro level.
The socio-economic factors of importance in the timing of fertility and their assumed effects are discussed in section 2.3.1. Cultural factors of importance in timing relate to the normative societal context with respect to contraceptive use, number of children, pregnancy timing, and the use of fertility technology. Technological factors influence the opportunities women have to regulate their fertility life course. Not only is the availability of several kinds of contraception an important feature; the availability of medical techniques to enhance conception (in vitro fertilization and artificial insemination, for example) is also important in this context. Cultural and technological factors are strongly interrelated. They are discussed in section 2.3.2.

Figure 2.3 Conceptual model of societal influences on the individual decision maker
2.3.1 The socio-economic context

Level of education
The level of education of Dutch women has reached a high standard (Statistics Netherlands 1997). This has consequences for the timing of fertility (Kieman & Diamond 1983). First, women spend more years in education (Statistics Netherlands 2000b). It is unusual to have children when in school or at university, so a delay in childbearing has arisen. The delay could either be a deliberate postponement, or an implicit result of the circumstances. Second, a high level of education brings about changes in attitudes and values related to family life and participation in the labour force. More education is assumed to broaden the mind and lead to a more ambitious life style, pursuing a professional career and moving away from the seclusion of the family. (De Vries 1992). However, the macro level data on the rise in the level of female education and the concurrent rise of the age at childbirth provide little insight into which of the above effects is the most important. The same holds for the micro level observation that highly educated women have their children somewhat later in life than the less well educated.

Labour force participation
The topic of female labour force participation is still subject to discussion in relation to family values. Individual attitudes towards working outside the home when there are young children tend to be more liberal than they were (Statistics Netherlands 1988, Knijn and Verheijen 1988), but a societal context that permits, let alone stimulates, an unproblematic combination of the two life goals is yet to be realized.

Statistics Netherlands reports an increase in female labour force participation rate from 25% in 1960 to 54% in 1999 (Statistics Netherlands, 2000c). Pott-Buter (1993) puts these rates in a broader historical perspective. Since 1850, female labour force participation rates in the Netherlands have been lower than those in neighbouring countries (Belgium, Denmark, France, Germany, Sweden, the United Kingdom). From 1850 to 1970, the Dutch rates remained at a low level, but increased rapidly in the 1980s. The Netherlands still had the lowest rate until it surpassed Belgium in 1990 (Pott-Buter 1993, pp. 28-29.). Like the high mean age at childbirth, the low participation rate is not a new phenomenon; it was already present in the 19th century.

Pott-Buter (1995; 1998) also gives female activity rates by family stage. Not surprisingly, the overall participation rate declines for women with children under 10 years of age to 5.5% working full time and 40% working part time. These data show that women in their childbearing years leave the labour force partly, temporarily, or entirely, because they have a child.

The same conclusion can be made from the data in table 2.1. Here, the age specific participation rates are broken down by parity. It can be seen that, within each age group up to 49, the participation rate of childless women is higher than that of women with children. The difference becomes smaller with increasing age, since older mothers usually have
older children who need less care, so that their presence no longer greatly influences the labour force participation of their mothers. In addition to this ageing effect, it is also the case that women who have their children later in life have a stronger tendency than younger mothers to stay in the labour force after they have had a child (Imbens 1992). The data in table 2.1 do not allow the separation of the two effects.

Table 2.1 Parity and age specific participation rates

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Childless</td>
<td>85.5</td>
<td>90.3</td>
<td>86.5</td>
<td>72.9</td>
<td>61.2</td>
<td>52.2</td>
<td>35.8</td>
<td>22.7</td>
</tr>
<tr>
<td>1 child</td>
<td>35.5</td>
<td>45.9</td>
<td>56.7</td>
<td>60.8</td>
<td>52.0</td>
<td>47.5</td>
<td>37.2</td>
<td>23.1</td>
</tr>
<tr>
<td>2 children</td>
<td>22.9</td>
<td>34.0</td>
<td>49.0</td>
<td>57.1</td>
<td>54.2</td>
<td>41.3</td>
<td>33.7</td>
<td>-</td>
</tr>
<tr>
<td>3+</td>
<td>-</td>
<td>27.3</td>
<td>32.8</td>
<td>47.1</td>
<td>46.4</td>
<td>38.7</td>
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Source: Eurostat, 1992

Camstra (1993) studied labour force behaviour in relation to the birth of a first child and found a dramatic decrease in the number of hours worked from five months before the birth of the first child until five months afterwards. The level at which the decrease stops depends on the level of education; highly educated women participate more than less well educated women after they have had their first child.

From the analysis above, we can conclude that there is a relationship between level of education, labour force participation, and age at childbirth. It is, however, extremely difficult to infer from aggregated data the direction of causality between the three variables (Rindfuss et al.1984, Ni Bhrolchain 1986, 1993). In this study, we concentrate on the way in which labour force participation changes around childbirth and plays a part in the decision making process on the timing of a (next) child.

Day-care facilities

The number of available day-care facilities available to women who want to participate in the labour force is limited. Although capacity is growing, there is still a shortage of childcare places. About 6% of young children (aged 0-4) are registered in a day-care facility that receives government funding (Pott-Buter 1998). Private households (gastgezinnen, host families) and employers provide alternative facilities affording some compensation for the shortage of government funded day-care places, or catering for parents who do not wish to make use of such institutions. In 1991, 45% of parents with young children made use of some form of day-care. Although the number of available places is growing, the combination problem for women with young children who want to work still prevails. Part-time work is a practical solution in the Dutch situation.
2.3.2 The cultural and technological context

The cultural context of the fertility life course is formed by values and norms held by specific subgroups in society (in different regions of the country, for example). The influence of this context is twofold. It can directly affect an individual's social context, by means of the attitudes and norms of important other people and through the decision maker's own norms and values. And it can have an indirect influence on timing decision making, through the amount of effort and money society is willing to invest in creating opportunities related to the timing of fertility. For instance, the number of day-care places will depend on societal (and political) attitudes towards mothers of young children working outside the home.

The cultural context in which timing decisions are being made in the Netherlands is one that stresses equal opportunities for men and women, personal freedom, value pluralism, and individualism (Van de Kaa 1987). By and large, the attitudinal climate for fertility related topics is permissive (De Feijter 1991). Almost everyone (90%) approves of people who do not want to have children, and 81% approve of a couple having a baby by means of in vitro fertilization techniques (SCP 1994). But there are signs of a reversal of the trend of the past few decades towards more liberal attitudes. For instance, the percentage of the adult population that approves of cohabiting couples having a child was 53 in 1987, 66 in 1991, and 58 in 1993. The same trend reversal occurred in attitudes towards the division of tasks between men and women. The percentage agreeing with the statement that women are more suited than men for raising small children was 42 in 1992, whereas one year earlier only 35% agreed. Nevertheless, attitudes remain more permissive than they used to be, and the liberal cultural context surrounding fertility decisions has not faded away.

Union formation

Age at marriage has risen; marriage is being postponed. The rise of the age at marriage occurred some years later than the rise of the age at which women have children. The explanations for both, however, stem from the same origin: the changes towards individualization and freedom of choice caused people to prolong their years of education and to opt for a period of cohabitation before they married (Manting 1994).

In the past, the relationship between the timing of marriage and that of the birth of a first child was very strict. For the calculation of first birth intervals, marriage served as a starting point. However, the time span between marriage and the birth of a first child has become much more variable. With the possibility of cohabitation, marriage is no longer a necessary precondition for living together, and the timing becomes increasingly related to other spheres of life, for instance, to the fertility career. Dutch Fertility Survey data showed that for women who are cohabiting, or have done so in the past, having children is the most important motivation for marriage (Statistics Netherlands 1994b).

Marriage as a determinant of the timing of childbirth has lost most of its explanatory power, and the relationship between the two events has in fact been reversed. That is not
to say that having a (male) partner is no longer important for the timing of children. Of course it still is; single parenthood is not very common in the Netherlands. The vast majority of children are born from parents who are married, but children born from parents who cohabit are no longer unusual.

**Contraception**

The prevention of a conception is crucial for the timing of a pregnancy. Contraception is the tool which women can use to organize their fertility life course according to their wishes. Dutch women have a tradition of making good use of several methods of contraception. They are able to do this, because contraceptives are relatively cheap and readily available. Even young girls have no problem obtaining the oral pill, or any other method they may prefer. This availability has resulted in the widespread use of contraception. Among women aged 18-42, 74% are users. Of the remaining 26%, 9% are pregnant or want to become pregnant; 5% report infertility and have no need for contraception. A further 9% have no sexual relationship with a man, which leaves a mere 3% who do not use contraception, because they disapprove of it, or for some other unknown reason (Statistics Netherlands 1994b).

**Medical fertility technology**

Medical science and technology have provided a wide range of opportunities to intervene in the natural course of conception and pregnancy. Female infertility has been an important subject of attention and women with an impaired chance of pregnancy can call upon the medical profession. A wide range of fertility techniques have become available to women, from hormonal induction of ovulation to artificial insemination of (donor) sperm cells (KID) and in vitro fertilization (IVF). It is not within the scope of this study to describe fertility techniques in detail. The importance for this study is to acknowledge the influence of this technological context on the individual decision making process concerning the timing of a pregnancy (Van Berkel 1993; Knijn & Hogerzeil 1992). Women may gain the impression from the huge amount of medical fertility care on offer that they can wait as long as they like, because gynaecologists can guarantee a successful pregnancy at any age. Usually, the criteria for entering a fertility treatment are related to age, but the age limits do not exclude many women. In the 1980s, the view was commonly held that there was no physical harm in postponing childbirth. It was not until 1991-1992 that some doubts about this guarantee emerged in public opinion. The medical profession made people aware of the fact that female fertility begins to be impaired from age 33 (Te Velde 1992). Furthermore, information became available that postponing pregnancy has some physical disadvantages for mother and child (Bruinse 1992). Older mothers have a slightly increased risk of breast cancer, and the probability of a miscarriage or of complications during pregnancy is somewhat higher. Older mothers also have a higher probability of having twins, which means that the babies are exposed to higher risks during pregnancy and delivery. Finally, the risk of a chromosomal defect (Downs syndrome) is higher for the children of older mothers.
2.4 Conclusion

A general picture of postponement and delay in the demographic life course emerges from the development of the age distribution of fertility and the concomitant societal changes. The later childbearing of Dutch women fits into the pattern of the lengthening of the adolescent period (Liefbroer & Dykstra 2000; Liefbroer & De Jong Gierveld 1993). Girls spend more years in the educational system than they used to do, which has important consequences for the timing of all life events later on in the life course.

The 'standard' female life course seems to be delayed for all demographic spheres of life: age at first sexual encounter, age of ending the educational career, age at marriage, and so forth, have all risen (Bonsel & Van der Maas 1994). It is then hardly surprising that age at childbirth has been affected by this general postponement of life events, and has risen accordingly. Of course, the timing of fertility does not react solely to the postponement of earlier life events. The aggregated age distribution of fertility is the result of the summation of the childbearing ages of individual women who have made individual decisions concerning their fertility life course. At this point, the societal context influences an individual's behaviour through socio-economic, cultural and technological factors, and they all add to the explanation of the shift in the age distribution of fertility.

In this chapter, we have concentrated on the aggregate result of many individual decisions and the context within which they were made. This yields some insight into the occurrence of fertility at higher ages in the Netherlands, and some explanations for it at the societal level. The focus of this project is on the decision making process of individual women. The variables that are relevant at the contextual level have been incorporated in the study to gain insight into the part the individual level derivatives of societal determinants play when women make their decisions about the timing of the birth of a child.