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Recent trends in fertility of women with a non-western background
living in the Netherlands

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Abstract

The annual figures on the fertility of Turkish and Moroccan women show that the sharp decline that took place up to the mid nineties was reduced or stagnated. In this paper we use cohort data by generation for the main population groups of non-western origin to show that the first generation only adjusted their fertility slowly to that of the native Dutch women. The first generation of Turkish and Moroccan women even has higher fertility rates than the women in their countries of origin. The realised fertility rate of the second generation, on the other hand, is virtually the same as that of the native Dutch women. Turkish and Moroccan women in their early thirties even have fewer children than native Dutch women that age. Their position is no longer in between the first generation and the native Dutch women, but fertility-wise they are more like the native Dutch than like their mothers.

Period and cohort data

The fertility figures presented in this paper refer to live-born children. We won't use fertility in the sense of the physiological capacity to bear children.

Analysing developments in fertility is generally based on period data, of which the best known is the total age-specific fertility rate (Total Fertility Rate, TFR). This is based on the fertility data about a calendar year or a several year period, and can express how many children a woman would have had on average if the fertility rate of her age, as observed in the period concerned, were to apply throughout her entire fertile years (ages 15-49). Therefore the TFR is often considered as the average number of children per woman. Its great advantage is that the fertility of a (fictional) cohort of women can be expressed in a single figure. Moreover the TFR refers to a specific period, requiring only the data on that period. In a situation where there is little year-on-year change in fertility behaviour, the TFR provides a good overall description of the developments. If, on the other hand, there is much catching up or delaying, the TFR gives the wrong impression of the developments, and particularly of the fertility that will be realised in the end. If in a given year many women were to decide to postpone having a child for one year, the TFR for the year in which the birth had been planned would fall substantially whereas the TFR for the next year would rise substantially.

Cohort data make it possible to provide a better description of fertility. This allows us to verify how the cumulative fertility for an actually existing cohort of women born in a given period has actually developed throughout their fertile years. A serious drawback of the cohort approach is that younger women, who are usually most important for the analyses and forecasts, cannot be fully described as they haven't yet ended their fertile period. Moreover a single measuring device is insufficient and there is much more data required.

Because the number of women with non-western backgrounds is growing fast as a group in the Netherlands, and their fertility rates are rapidly changing, the analyses presented here are mainly based on cohort data, broken down by generation when possible. Also, period data are used to indicate general trends.

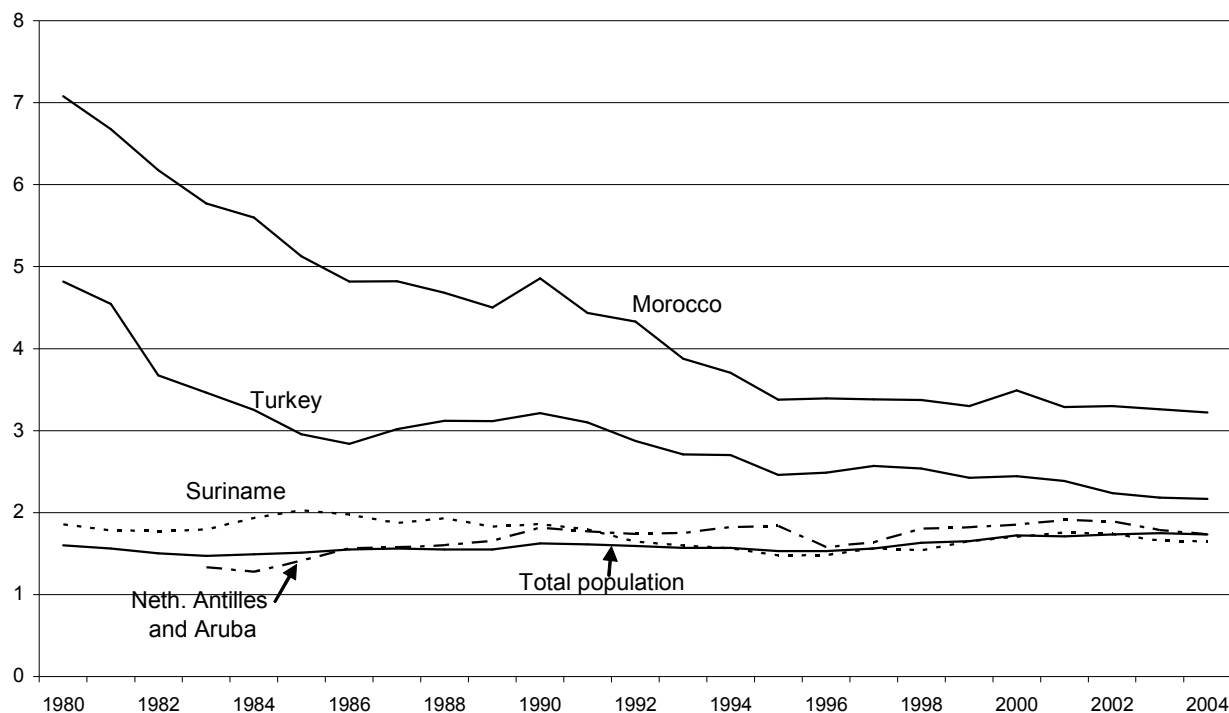
1. Introduction

In the Netherlands the fact that women with a non-western background reduce the number of children they have is often seen as proof of their integration into Dutch society. Verstand-Bogaert, then junior minister of Social Affairs and Employment, put it as follows during a speech in Düsseldorf, Germany: “In the Netherlands we see that immigrants quickly adapt to their new surroundings as far as children are concerned. The average number of children among people with a foreign background has quickly fallen to the level that is current among the native Dutch population in the Netherlands” (Ministry of Social Affairs and Employment, 2000).

The fertility of Moroccan and Turkish women did indeed fall sharply in the last few decades, although the fertility rate is not even close to that of native Dutch women. Such a low figure is not expected even in the long run by Statistics Netherlands (Alders, 2005). Moreover, it is not clear that the convergence signalled earlier between non-native and native Dutch fertility has continued in the last decade. Among Moroccan women of the first generation the fertility rate seems to have stagnated since 1995. Among Turkish women there seems to be no fast decline anymore (*figure 1*).

The fertility of the second generation is generally well below that of the first generation. This lower fertility, especially among the youngest women, and the rise in the age women get married is often interpreted as a sign that non-native women follow ‘the example’ of the native Dutch (Garssen et al., 2005). However, it would go too far to ascribe the decrease in the difference in fertility to closer social contacts between the non-native and native populations or to greater assimilation (Coleman, 1994). It is not clear that the native Dutch women provide the example in this respect. After all, fertility dropped in the countries of origin as well in recent years (Huisman and Van Wissen, 1997; Schoenmaeckers et al., 1998; Eltigani, 2001; Council of Europe, 2005). Data of the World Resources Institute indicates that over the last twenty years the TFR (see box) in Morocco fell from 5.40 to 2.75, and in Turkey from 4.15 to 2.43. Currently fertility is below the replacement level everywhere in Turkey, except south and east Anatolia (Koç and Özdemir, 2004). Fertility would even be substantially less if unwanted pregnancies could be prevented (Ünalán et al., 2004).

Figure 1
Total age-specific fertility rate (TFR), by foreign background, first generation



The decrease in fertility among the second generation no longer seems to occur in all groups, or at least not at the expected rate (*figure 2*). The stagnation in the fertility decrease among Moroccan women shown in *figure 1*, also occurs among Moroccan women of the second generation. This is a remarkable development, given the observation several years ago that Moroccan women in particular postponed having their first child (Alders, 2000a).

Among Turkish women of the second generation there is a decrease up to the age of about 25. Among young Antillean women fertility is even on the increase. This group hardly differs from the native Dutch in terms of fertility levels.

These figures show fertility in a given year, but they are insufficiently reliable for calculating a TFR at the higher ages because of the relatively small numbers involved per group. Such a transversal measure moreover has the serious disadvantage that postponed fertility leads to lower figures without allowing conclusions if fertility is slowing down. A cohort approach can provide more insight, but its disadvantage is that the birth cohorts of the second generation are still relatively small, especially as far as the slightly older women are concerned. The birth cohort of non-western women aged 35-39 on 1 January 1999, the time of the last cohort study by Alders (2000a), refers to only 1 700 women. A split into groups by origin leads to very small numbers in the interesting age categories and origins. On 1 January 1999 there were only 13 second generation Turkish women aged 35-39. Of course no reliable fertility rate could be calculated for this group.

Figure 2
Age-specific fertility rates, by five year age groups and foreign background,
second generation, 1996, 2000 and 2004

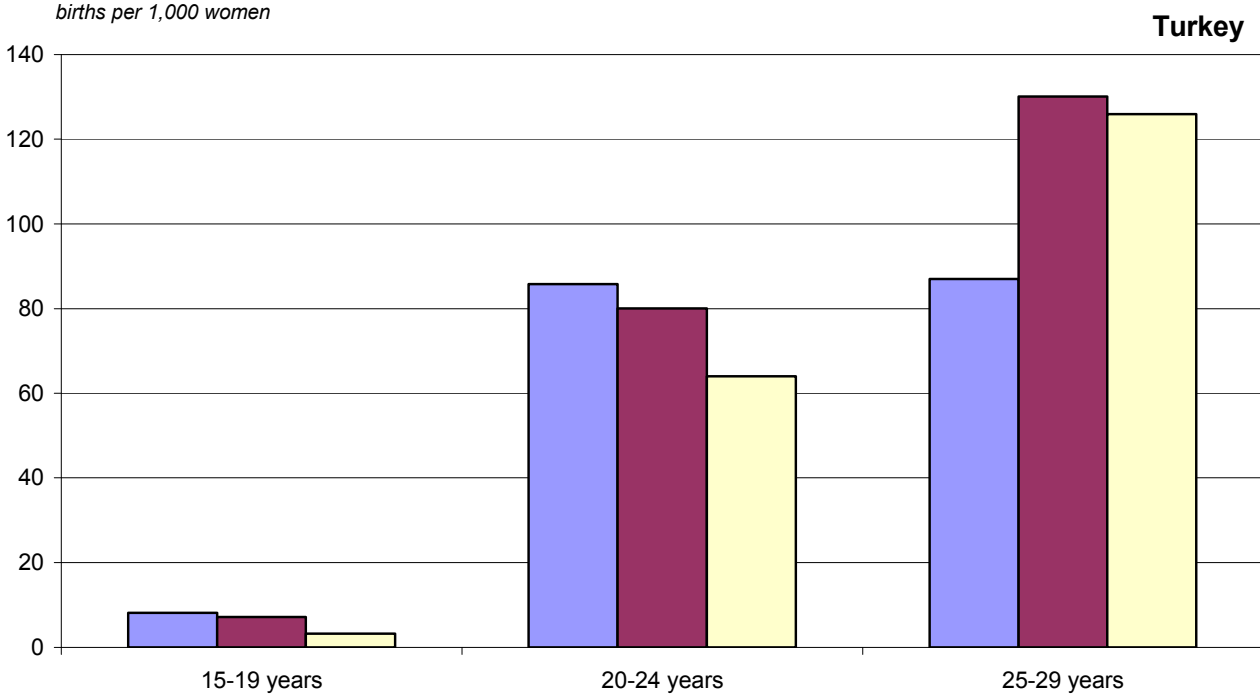
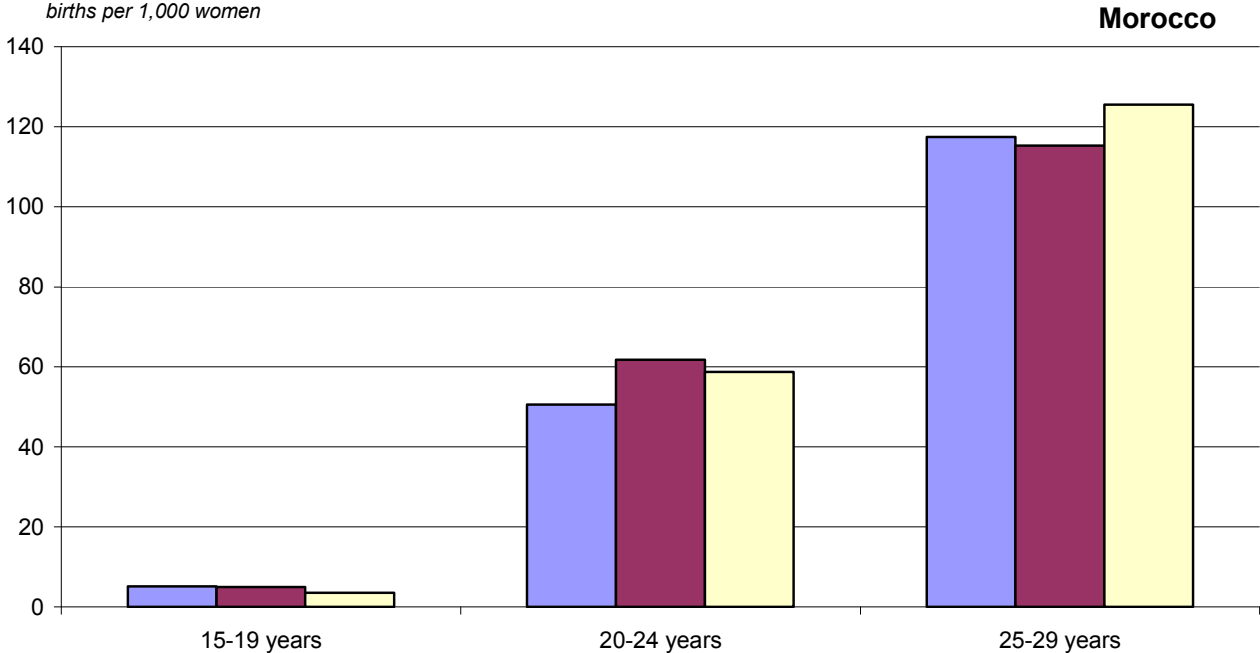
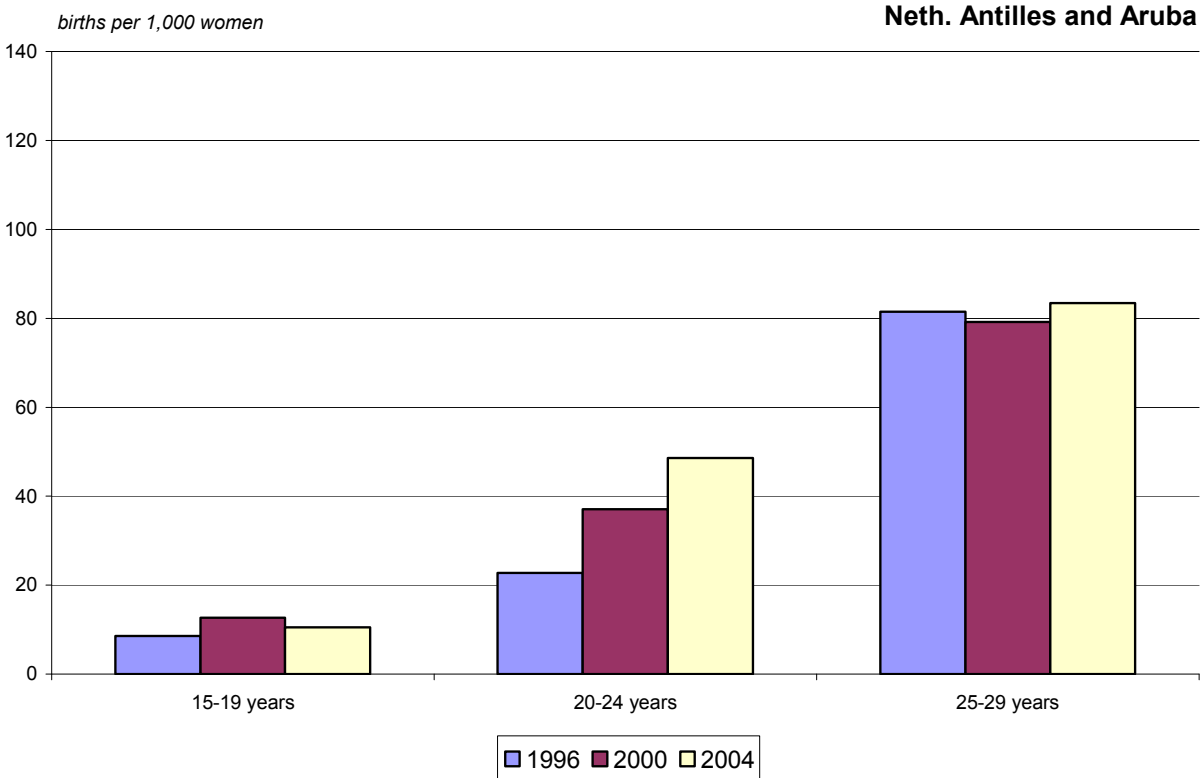
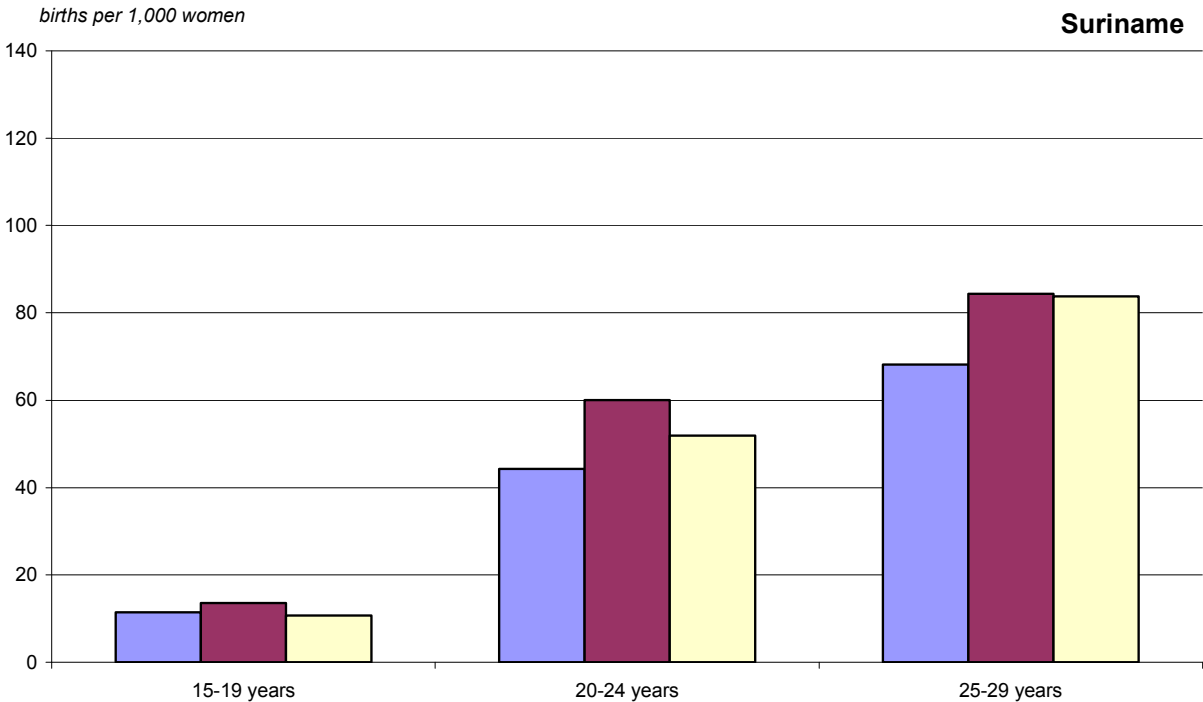


Figure 2
Age-specific fertility rates, by five year age groups and foreign background, second generation, 1996, 2000 and 2004 (end)



In recent years the non-western second generation increased in size quite a bit. Their numbers roughly doubled in the 20 to 40 year age bracket. The increase was even greater in some rather interesting groups in terms of fertility behaviour. In five years time the number of second generation 35-39 year old Turkish women went from 13 to 294. This increase makes it possible to make fairly reliable estimates for the slightly older women within the fertile age category about their cohort fertility. This cohort study refers to women by age and origin according to the enumeration from the municipal population registers on 1 January 2005. For the most complete picture possible the cohort data will be supplemented with period data.

2. Results of earlier studies and research questions

Various studies showed that women with a non-western background are having fewer children. Over two decades ago the fertility of Turkish women fell rapidly (Schoorl, 1985). This also applied to Moroccan women (Schoorl, 1988; 1990) and non-western resident women in general (Schoorl, 1995; Huisman and Van Wissen, 1997; Sprangers, 1998; Alders, 2000a; Alders and Schapendonk-Maas, 2001; De Valk et al., 2001; De Jong, 2003).

The most recent major cohort study about the fertility of first generation women concluded on the basis of data up to 1999 that fertility levels were converging with that of native Dutch women (Alders, 2000a). There were a few exceptions and major differences between women of different origins.

Turkish women were the youngest when they start their motherhood. There was no delaying of the first child observed: women born between 1965 and 1970 became mothers at the same young ages as the women born between 1945 and 1950. The share of childless Turkish women also remained equally high. The decrease of the average number of children among Turks was entirely connected with the decrease of the average family size.

The fertility of Moroccan women turned out to have fallen sharply, just like that of the Turkish women. They did have the most children, but postponed having their first child. The number of third and further children dropped sharply.

A sharp decrease in the realised number of children was also observed among Surinamese women, who postponed having their first child more often and had far fewer third and further children than before. Surinamese women remained childless much more often than Turkish or Moroccan women, but less often than native Dutch women.

There was no difference in the age Antillean women had their first child, same as among the Turkish women, but on average they became mothers five years later than Turkish women. The older generations of Antillean women remained childless more often than the other groups of non-native women and even more often than native Dutch women. Of the four major groups with a foreign background they had the fewest children.

The differences in postponement turned out to increase the differences between groups over time. The still very small second generation clearly behaves differently

in fertility than their mothers. Especially Turkish and Moroccan women seemed to be in a position right in between the first generation and the native Dutch women. Second generation Moroccan women did have children at a much earlier age than native Dutch women, but did not have more children by the time they were thirty despite this. The assumption was that they would end up with roughly the same number of children as the native Dutch women.

The differences in levels and trends between the various groups have stayed substantial according to the period data from 1999 onwards. For example, in 2004 the TFR of Moroccan women (3.22) was nearly twice as high as that of Surinamese women (1.65); and while the fertility of Turkish and Moroccan women fell sharply, on balance, over the past twenty years, there was a slight increase among Antillean and Aruban women. A meaningful description of the developments among women with a non-western background asks for a separate consideration of each of the different groups. In this article we will deal with the following issues which haven't yet been addressed fully in previous studies:

- Which trends are visible by birth cohort among the four major groups (Turkish, Moroccan, Surinamese and Antillean/Aruban women) and the smaller groups who came to the Netherlands more recently (Afghan, Iranian, Iraqi, Somali and Chinese women)? Is there still convergence of the fertility levels to the level of the native Dutch women?
- Which role does postponing and not having children have in the decreasing fertility figures? Does the observed fact that Moroccan women postpone having their first child lead to an increase in their eventual childlessness, as was assumed by Alders (2000a)? Are almost all Turkish women still becoming mothers, and are they still so much younger than women from the other groups?
- What role does the smaller average family size play, if any? Is the earlier decrease observed among Turks also observable among the other groups?
- Is the stagnation of the fertility among the second generation Moroccan women, as suggested by the period figures in figure 2, also shown in the cohort figures? Does the second generation, in terms of fertility, still take up a middle position between the first generation and the native Dutch women, as observed for Turkish and Moroccan women by Alders (2000a)?

3. Data and method

The cohort fertility for a given calendar year is calculated on the basis of data from the population register. In the Netherlands the population size and dynamics are stored in the Dutch '*Gemeentelijke Basisadministratie persoonsgegevens*' (GBA, the municipal basic registration of population data). Here we use data from the enumeration from the municipal population registers of 1 January 2005. In these registers various facts are registered for each woman, such as the date of birth, the data of arrival in the Netherlands, the country of birth, the country of birth of her parents and the birth dates of her children. The cohort fertility of women currently living in the Netherlands is calculated by dividing the number of children born to the

women into the total number of women born in a given year. The result of the calculation is the cohort fertility of all women currently living in the Netherlands. Women who emigrated or died are not taken into account. The figures on fertility can be distinguished by country of birth, generation, age at birth, date of arrival in the Netherlands and birth order.

So the calculation of the cohort fertility based on register data differs from the calculation based on the annual birth statistics (see box). Differences may occur in case of selective migration, for instance if childless women would be more inclined to emigrate than women with children. On the other hand, the annual birth statistics do not take into account the children the migrant women had before they came to the Netherlands.

For women born after 1945 the differences between the two fertility measures are minimal. For women born before 1945 the cohort fertility is much underestimated when the register based figures are used. This is because during the conversion of the population register from the paper files to a fully automated system, it was decided that children should be included in the personal files of both the father and the mother. For practical reasons this was done only for children born after 1965. For children born before 1966 this was not obliged, so for these children it is possible that they are included in the personal file of the father but not in that of the mother. This limitation plays a minor role in the analysis presented here; only in the oldest birth cohort (1945-1949) and only for the few women who then became mothers before they were twenty.

In this article we compare the fertility of native Dutch women with that of first and – when relevant – the second generation women of the four major groups of people with a foreign background (Turks, Moroccans, Surinamese and Antilleans/Arubans) and several smaller groups who generally arrived more recently in the Netherlands (Afghans, Iraqi, Iranians, Somalis and Chinese).

Native Dutch women are defined as all women with both parents born in the Netherlands, that means excluding the second generation foreigners.

4. Developments in fertility by origin

Native Dutch women

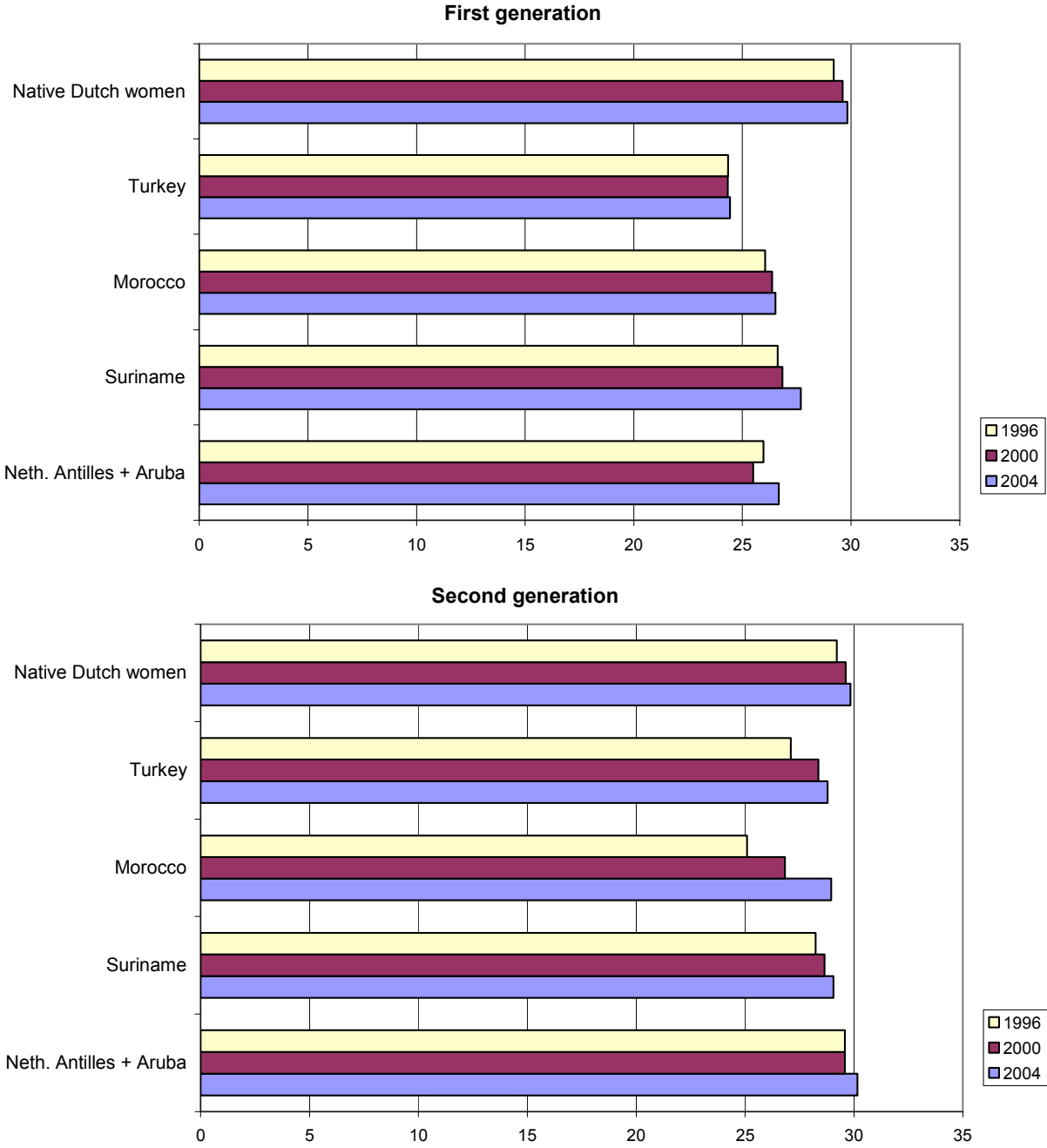
In recent years the number of native Dutch women in the fertile age group (15-49) has declined sharply. The decrease is expected to last until 2025, and is due to the dip in fertility in the early seventies in The Netherlands. Between 1996 – the first year on which we have detailed figures on origin – and 2005 the number of native Dutch women fell by over a quarter of a million (*table 1*). Their share in the total number of women aged 15-49 fell during this period from 82.7 to 77.8 percent.

Table 1
Number of women aged 15-49 years, by foreign background and generation, 1 January

	Total		of which:			
	1996	2005	first generation		second generation	
	1996	2005	1996	2005	1996	2005
	<i>x 1,000</i>					
Native Dutch women	3332.4	3062.2				
Western foreigners	368.8	372.3	150.0	170.0	218.8	202.3
Non-western foreigners	326.4	499.3	279.2	377.3	47.2	121.9
of whom:						
Surinamese	88.6	104.9	73.2	70.4	15.4	34.5
Turkish	72.5	102.6	61.9	72.5	10.7	30.2
Moroccan	54.6	85.8	47.8	61.5	6.8	24.3
Antillean/Aruban	26.3	39.4	21.0	29.1	5.3	10.3
Chinese	7.0	14.9	5.8	12.9	1.2	2.0
Iraqi	2.3	10.6	2.2	10.4	0.1	0.2
Afghan	1.1	9.4	1.1	9.4	0.0	0.0
Iranian	4.1	8.5	3.9	8.1	0.2	0.3
Somali	4.7	5.6	4.7	5.6	0.0	0.0
Total	4027.6	3933.8	429.2	547.3	266.0	324.3

For quite a time, mothers in the Netherlands, particularly native Dutch mothers in the Netherlands, are among the oldest in the world (Coleman and Garssen, 2002). However, they are approaching the limits of late motherhood. In 2004 native Dutch women were on average 29.8 years old when their first child was born, 0.2 years older than in 2000 (*figure 3*). The younger birth cohorts are obviously having children later than the older cohorts. Women born in the period 1965-1969 became first time mothers at the average age of 28.5, almost four years year later than women born twenty years earlier. The average age of the youngest birth cohort will increase slightly because some women without children in this group will have a child in the next few years. Postponement is also observed to a greater or lesser extent among the main groups of women with a non-western background, with the exception of the Antillean women (*figure 4*).

Figure 3
Mean age¹⁾ of the mother at first birth, by foreign background and generation



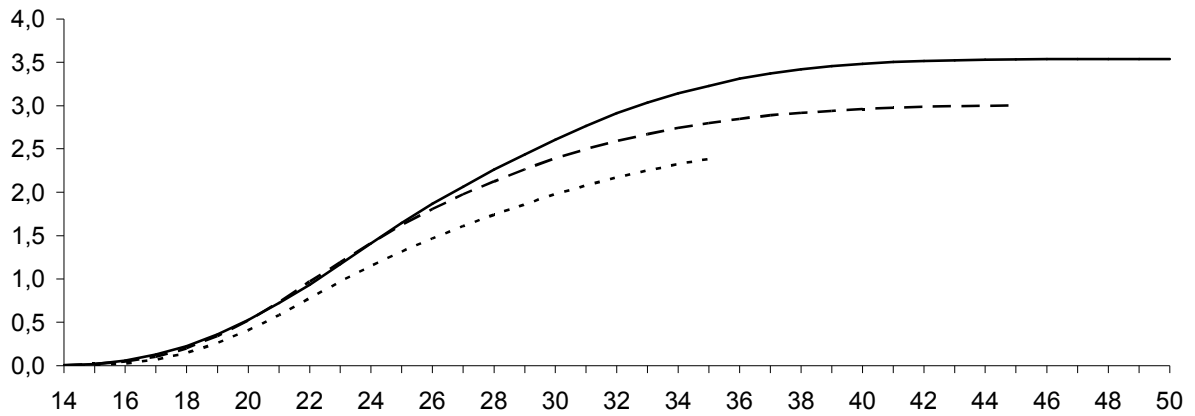
¹⁾ Standardized by the native Dutch female population.

Figure 4
Cohort fertility of first generation mothers, by age, foreign background and year of birth of the mother, 1 January 2005 (four major groups of non-western origin)

Native Dutch women



Turkey



Morocco

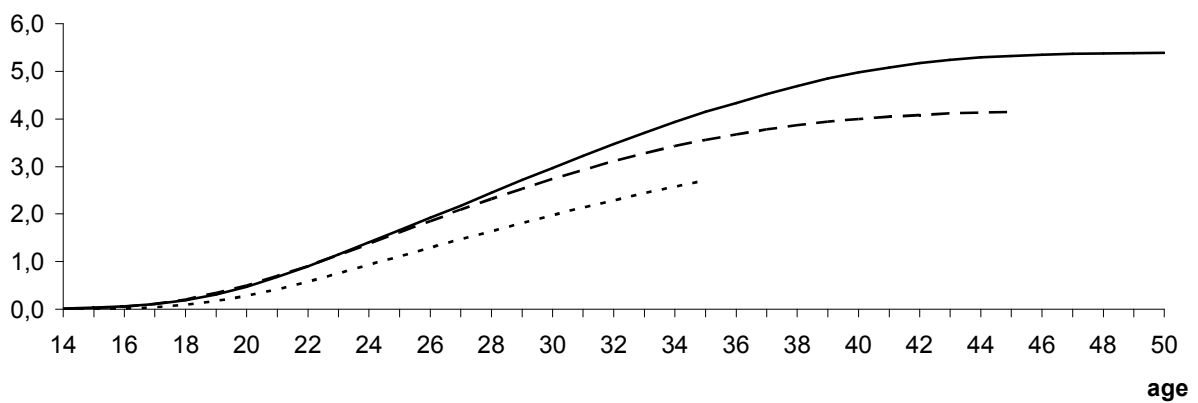
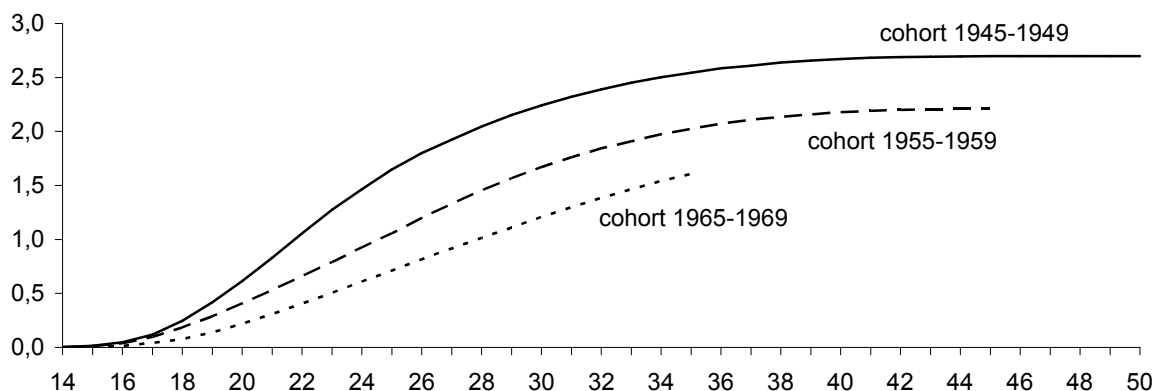
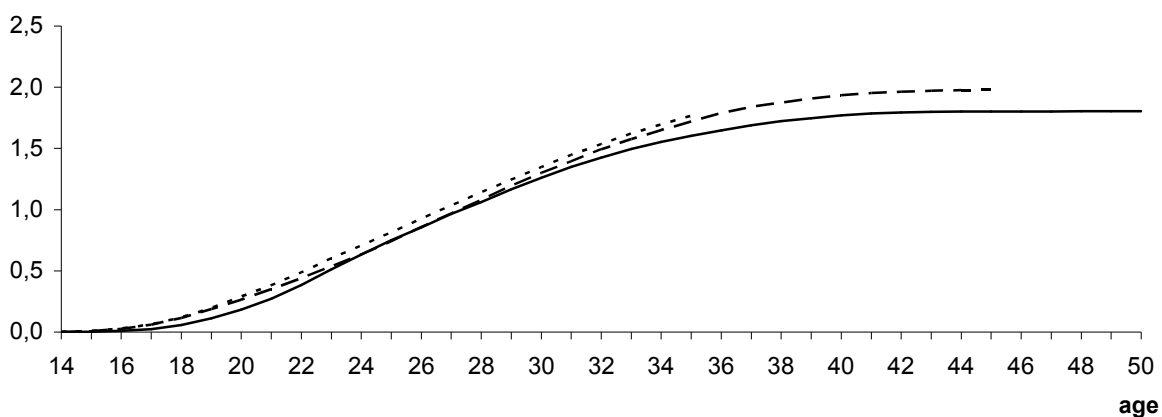


Figure 4
Cohort fertility of first generation mothers, by age, foreign background and year of birth of the mother, 1 January 2005 (end)

Suriname



Netherlands Antilles and Aruba



Some 12.2 percent of the native Dutch women born in 1945-1949 remained childless (*table 2*). This is a larger share than that of the women of the major non-western background groups except for the Antillean women (18.7 percent). In the younger cohorts 1955-1959 however, 14.3 percent of the Antillean women has had no children as opposed to 17.1 percent of the native Dutch women. Childlessness among native Dutch women is clearly on the up, a development that is partly due to postponing motherhood.

Of the women born in 1955-1959 – who were aged 45 years at the time of observation – 69.9 percent had had a second child; as opposed to 73.3 percent of the cohort that was ten years older (*figure 5*). There seem to be more third and fourth children for the younger cohort: 25.0 percent of the women born in 1955-1959 had three children, and 6.0 percent had four. Of the cohort that is ten years older 21.8 percent had three children and 5.2 percent had four. This increase has also been observed in the 1998 *Fertility and Family Survey* of Statistics Netherlands (De Beer and De Graaf, 1998).

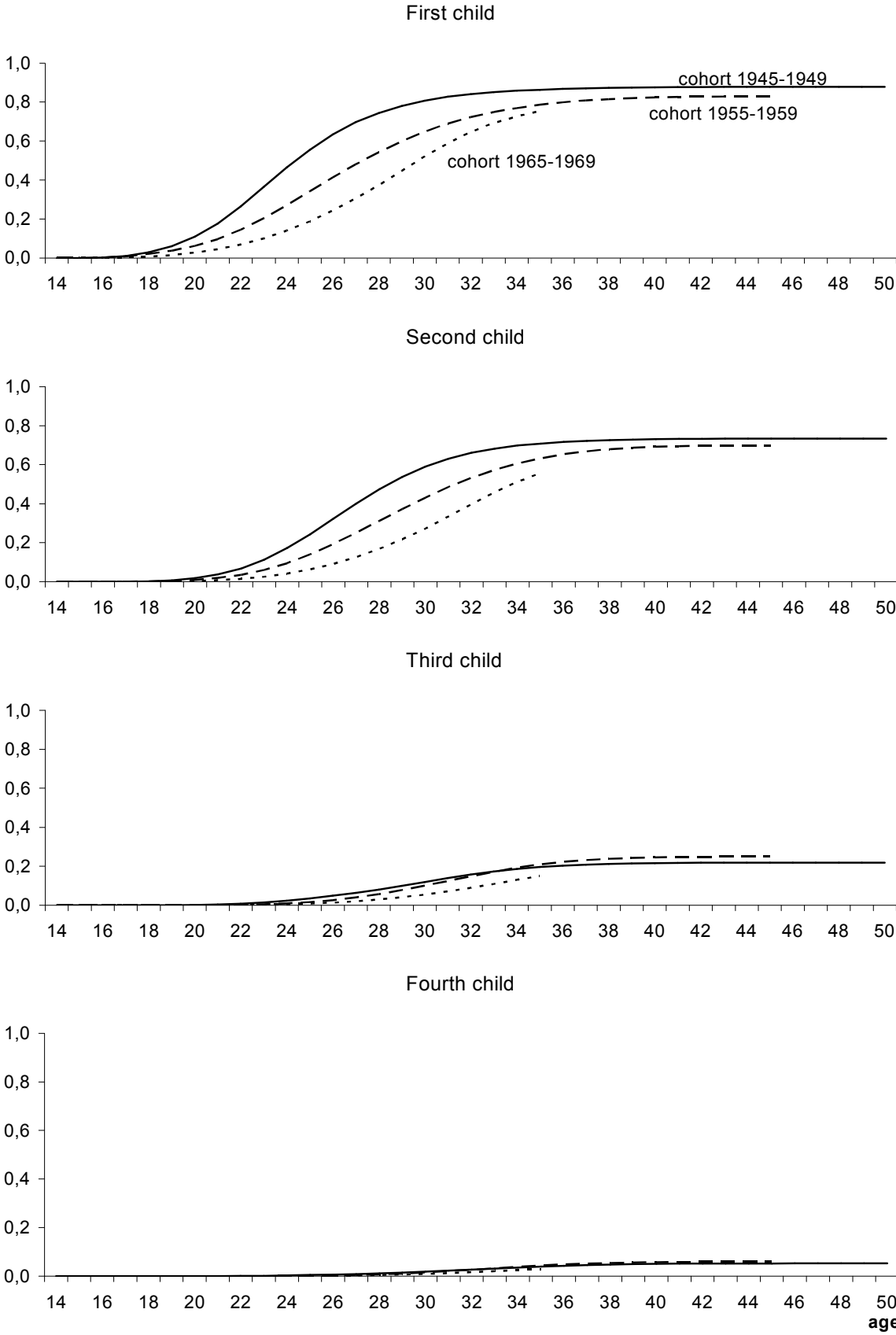
Table 2
Childlessness of women by year of birth and foreign background, first generation,
1 January 2005

Year of birth of the mother	age at observation	Turkey	Morocco	Suriname	Neth. Antilles and Aruba	Afghanistan	Iraq	Iran	Somalia	China	Native Dutch women
		%									
1945-1949	55 years	5.2	6.2	10.1	18.7	26.0	31.3	26.5	32.7	16.7	12.2
1950-1954	50 years	5.4	6.6	10.8	16.4	17.5	19.7	15.7	27.8	12.9	15.2
1955-1959	45 years	5.8	8.5	12.0	14.3	11.9	12.2	15.3	15.2	13.6	17.1
1960-1964	40 years	5.2	9.2	13.8	15.1	8.9	10.5	14.8	19.8	15.7	18.4
1965-1969	35 years	7.0	11.5	20.7	20.1	11.3	14.7	24.2	15.5	26.3	24.5
1970-1974	30 years	12.8	20.7	37.8	32.4	20.3	22.2	45.8	21.9	49.0	50.7

Teenager mothers are now quite rare among native Dutch women, in contrast to the sixties. About 4 in a thousand native Dutch girls aged 15-19 had a child. Given the size of the group of native Dutch girls, teenage motherhood is not an 'immigrant problem': nearly half of all teenage mothers are native Dutch (Garszen, 2005a).

The decrease in the number of native Dutch women of fertile age in the past decade is largely compensated by the increase in the number of non-western women. The number of western women has remained virtually unchanged. The total group of non-western women aged 15-49 increased from 326 thousand in 1996 to 499 thousand in 2005. Currently they make up 12.7 percent of all women aged 15-49 in the Netherlands, and they are gaining influence on the Dutch fertility figures due to their number. We will discuss the main groups of origin below.

Figure 5
Cohort fertility of native Dutch women by age of the mother, birth order, and year of birth of the mother, 1 January 2005



Surinamese women

The largest group among the non-western women aged 15-49 are the Surinamese women, of whom 105 thousand lived in the Netherlands on 1 January 2005. The share of the first generation within the Surinamese group is gradually declining, while the second generation is increasing fast (table 1). This development is due to the fact that most Surinamese people have resided in the Netherlands for some time, as the main peaks in the immigration from Suriname took place in the mid to late seventies.

The fertility of Surinamese women first increased in the early eighties to a level that was about 20 percent above the Dutch average (De Jong, 2003; Tas, 1983). Then the level fell to about the national average. Surinamese women in the Netherlands have always had a lower fertility rate than the women in Suriname, although the difference decreased when the fertility in Suriname dipped. Recently the TFR in Suriname was 2.45 as compared to 3.70 in the early eighties (World Resources Institute).

In recent years the mean age at which Surinamese women have their first child has increased slightly among the first and second generation. The second generation, at 29.1 hardly differs from the native Dutch women (29.8 year; figure 3). Of all groups of women with a non-western background, the Surinamese women of the first generation are the oldest when they have their first child. The mean age at first birth increases among the first and the second generation.

Despite this high average age, there are also relatively many teenage moms among Surinamese women. Among second generation girls, teenage motherhood occurs most frequently among the Surinamese: in 2004 almost 15 in a thousand second generation Surinamese teenage girls became mothers (Garssen, 2005b).

Of the Surinamese birth cohort 1955-1959, aged between 45 and 50 year on 1 January 2005, 12 percent had no children; 72 percent had at least two children, 39 percent had three children and 15 percent had four children. Over a third of the children born to the 1955-1959 cohort were born in Suriname, which explains why the cohort fertility of women born in Suriname shown in *figure 6* is higher than the TFR of Surinamese women calculated on the basis of the period data. The figure shows a remarkable development in the fertility behaviour of Surinamese women. The realised fertility of the first generation women of the birth cohort 1955-1959 is well above that of the native Dutch women born in the same period. This goes for all ages but especially among women in their twenties. Childlessness is less frequent at all ages than among native Dutch women (table 2). The realised fertility of the cohort 1965-1969 is not only lower than that of the older women, but actually even approaches the fertility of the native Dutch women of the same birth cohort. The most remarkable fact is that the realised fertility of the second generation starting at about age 30 is lower than that of the native Dutch women (*figure 7*). Second generation Surinamese women in their mid thirties more often have no children than the native Dutch women (*table 3*). Although eventually the average number of children of the second generation of Surinamese women will increase slightly, it is expected to be about 20 percent less than that of the native Dutch women. So the fertility of Surinamese women puts a downward pressure on the Dutch fertility rate. The downward effect will probably become more pronounced in

the future because the second generation has a rapidly increasing share in the group of Surinamese origin.

Table 3
Childlessness of women by year of birth and foreign background, first and second generation,
1 January 2005

Year of birth of the mother	Age at observation	Turkey		Morocco		Suriname		Neth. Antilles/Aruba		Native Dutch women
		first generation	second generation	first generation	second generation	first generation	second generation	first generation	second generation	
		%								
1965-1969	35 years	7.0	26.7	11.5	28.5	20.7	34.6	20.1	32.1	24.5
1970-1974	30 years	12.8	29.5	20.7	40.3	37.8	50.8	32.4	57.9	50.7
1975-1979	25 years	30.8	55.4	46.1	69.0	62.3	70.2	55.8	81.5	85.5

Figure 6
Cohort fertility of Surinamese women by age of the mother, birth order, and year of birth of the mother, 1 January 2005

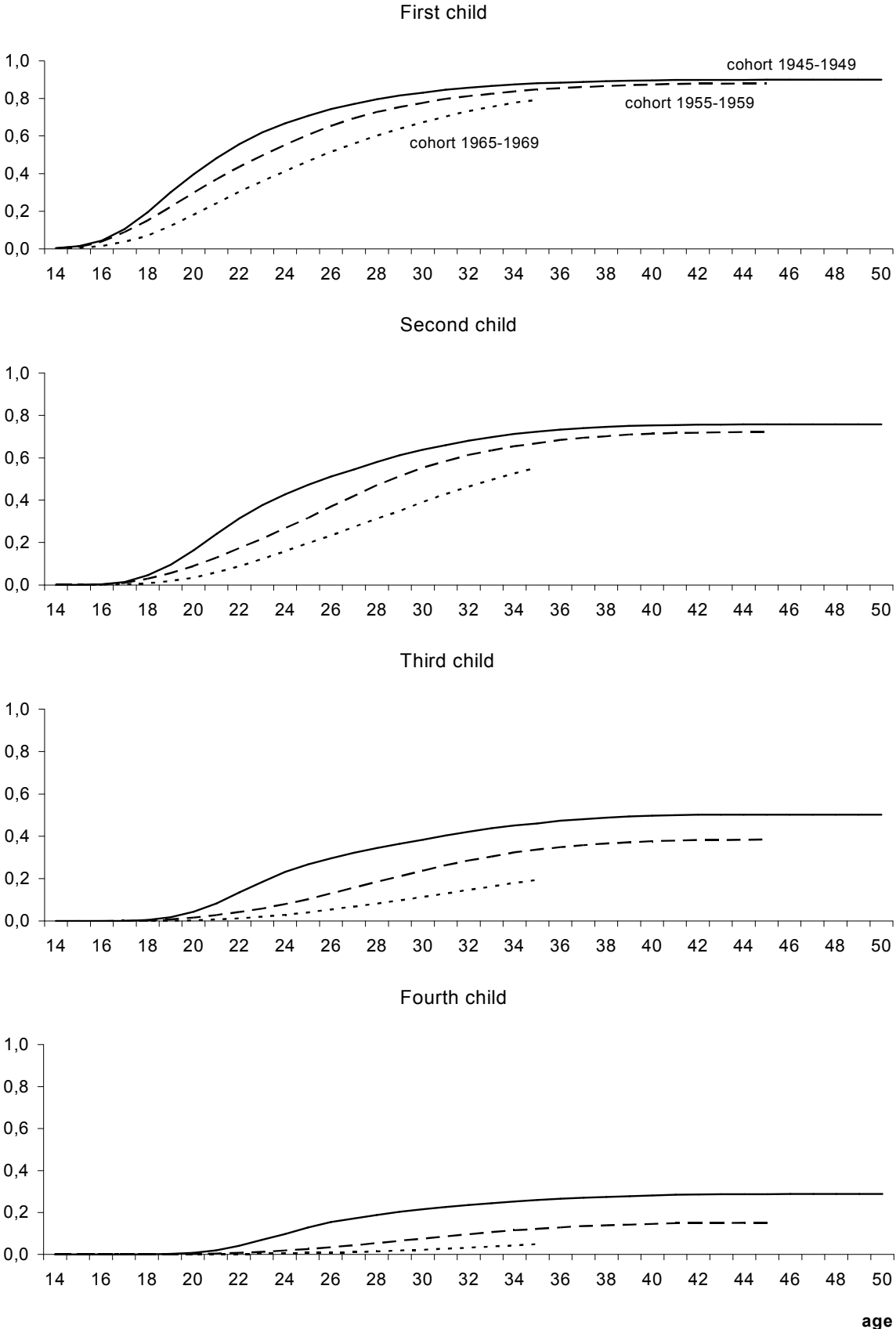
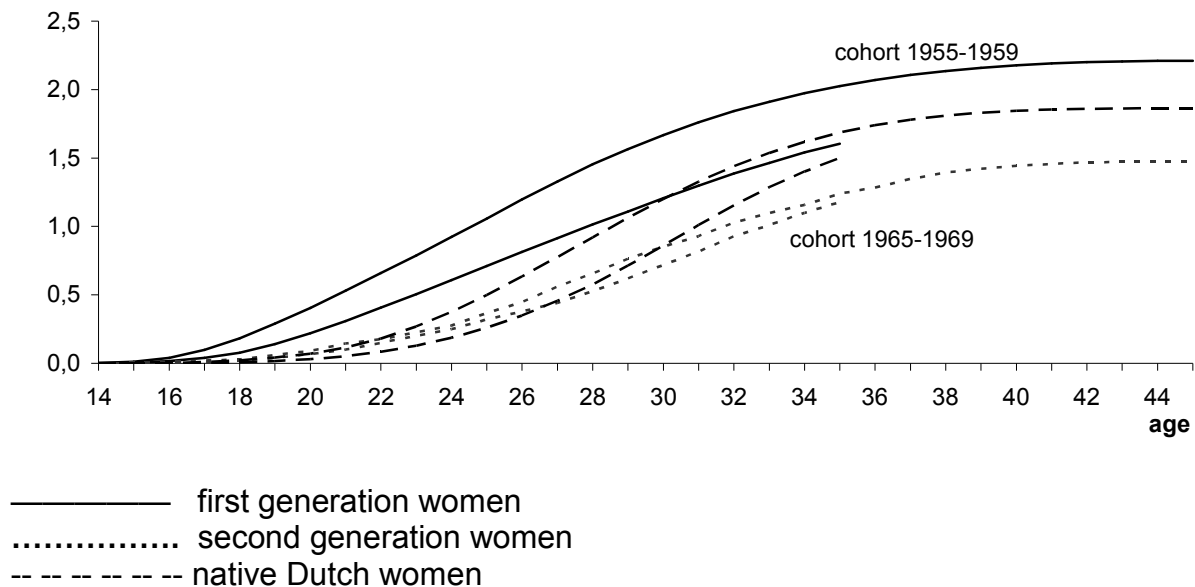


Figure 7
Cohort fertility of first and second generation Surinamese women and native Dutch women by age and year of birth of the mother, 1 January 2005



Turkish women

The 103 thousand Turkish women aged 15-49 on 1 January 2005 are the second largest group with a non-western background living in the Netherlands. In contrast to the situation of the Surinamese women, their first and second generation increased. There has been a sharp increase in the second generation from 10.7 thousand women aged 15-49 in 1996 to 30.2 thousand in 2005.

The TFR of Turkish women in the Netherlands in 1996 was 2.49 and has been decreasing slowly in recent years. In 1980 their TFR was 4.8 (De Jong, 2003). So the TFR of the Turkish women approaches that of the native Dutch women, but it is uncertain that this is an indication of assimilation: in the same twenty year period the TFR in Turkey has shown a similar decrease. In the last decade the decrease in the TFR in the Netherlands slowed down so that the TFRs of women in Turkey and of Turkish women in the Netherlands now differ very little. Ten years ago the TFR of Turkish women in the Netherlands was still substantially lower than the TFR in their country of origin (Huisman and Van Wissen, 1997).

An earlier study concluded that almost all Turkish women have children and at a relatively young age (Alders, 2000a). The conclusion still stands for the first generation. The age at birth of the first child barely increased among the first generation, but among the second generation it rose by 1.7 year between 1996 and 2004 (figure 3). When the differences in age structure are taken into consideration, Turkish women of the second generation differ very little from native Dutch women in this respect.

Motherhood among Turkish teenagers of the first generation is more common than among other groups except the Antillean women. There is a major difference

between the first and second generation of Turkish women. In 2004 some 42 per thousand women of the first generation aged 15-19 had a child, compared to less than 6 per thousand of the second generation. A huge majority of these teenage mothers is 19 when they give birth and married (Garsen, 2005b).

Only 5 to 6 percent of all Turkish women of the first generation had no children at all (table 2). The realised fertility by age of the younger birth cohorts of the first generation shows a pattern that is little different to that of the older cohorts. About nine in ten Turkish women have a second child. Here too the difference between the birth cohorts is minimal. Turkish women do have a third and fourth child more often than any of the other groups except Moroccan women. The share of women with a third or fourth child is diminishing among the younger birth cohorts. The preference for smaller families was also observed in Belgium (Schoenmaeckers et al., 1998). About 60 percent of the 35 year old women of the 1955-1959 birth cohort had a third child, compared to 45 percent of the birth cohort 1965-1969 (*figure 8*). For the fourth child the shares were 29 and 13 percent respectively.

First generation women in the older birth cohorts realised a considerable part of their fertility in their country of origin. Over two thirds of the children of the women from cohort 1945-1949 were born outside the Netherlands. This share is dropping fast. Women born a decade later realised less than a third of their fertility outside the Netherlands. These younger women spent more of their fertile years in the Netherlands. Possible the changing motive of immigrants from Turkey plays a role: from family reunification to family formation.

Figure 9 clearly shows that the decrease in fertility of Turkish women aged 30-39 is almost entirely due to the second generation. The realised fertility of the first generation is slowly decreasing. The substantial family formation migration in the past decade, peaking in 2003, explains why the TFR of Turkish women since the mid nineties has only decreased slowly. Many Turkish marriage migrants come from parts in Turkey where fertility is above the national average (Esveldt et al., 1995; Koç and Özdemir, 2004). Currently the fertility in Turkey is below replacement level everywhere except for South and East Anatolia. The fertility pattern of the first generation Turkish women in the Netherlands remarkably is more traditional than for Turkey as a whole. Given the sharp decline of the family formation type of migration from Turkey and the shifting ratio between the first and the second generation, the TFR for the total group of Turkish women in the next few years will be falling again.

Figure 9 shows what role Turkish women of the second generation will be playing in the decline. The realised fertility of the birth cohort 1965-1969 (second generation) is even slightly below that of native Dutch women as of the age of 32. The second generation much more often has no children than the first generation (table 3). It is intriguing that the younger birth cohort of the second generation may be less fertile than the first generation, but it is more fertile than the slightly older women. They become mothers at a younger age, not only compared to the slightly older women, but also in comparison with the other major groups.

The fertility pattern of Turkish women described earlier by Alders (2000a) is still true: almost all Turkish women become mothers and have their child young. The drop in the Turkish fertility rates is mainly due to the lower number of third and fourth order births.

Figure 8
Cohort fertility of Turkish women by age of the mother, birth order, and year of birth of the mother, 1 January 2005

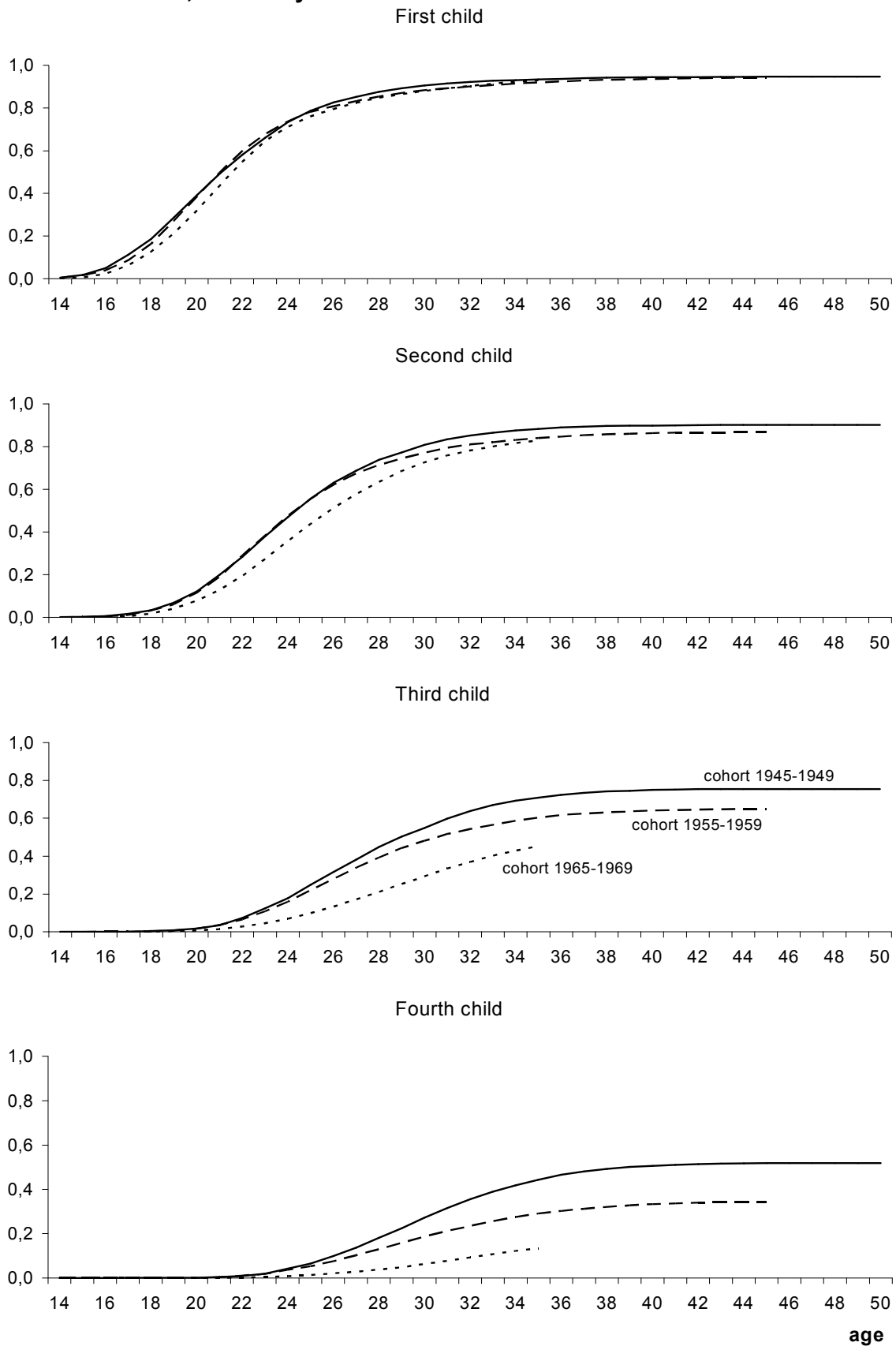
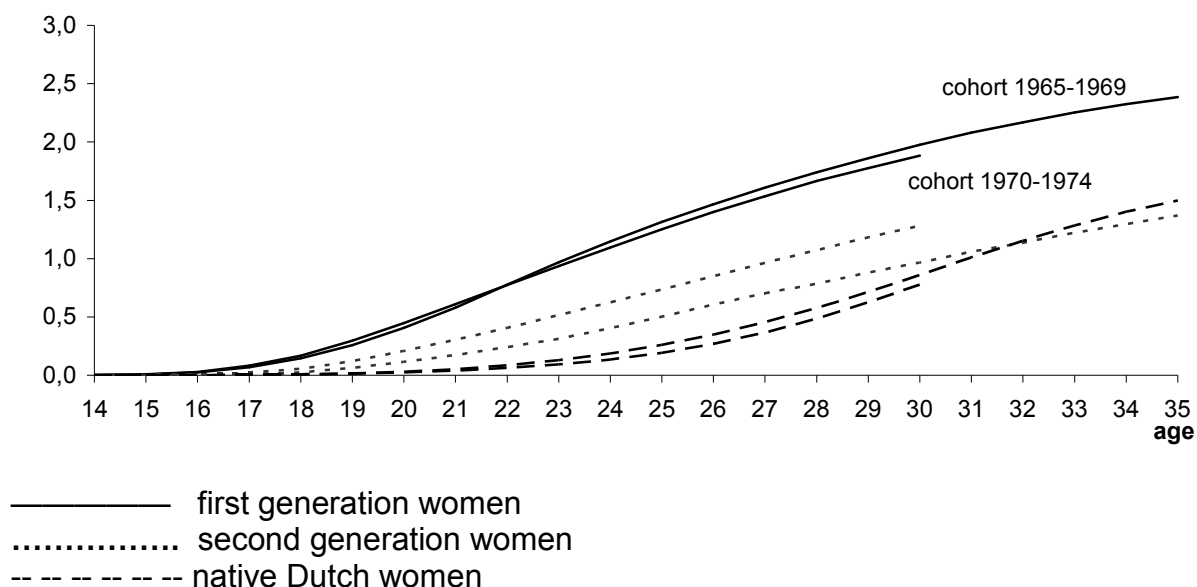


Figure 9
Cohort fertility of first and second generation Turkish women and native Dutch women by age and year of birth of the mother, 1 January 2005



Moroccan women

The number of Moroccan women aged 15-49 increased in the period 1996-2005 from 54.6 thousand to 85.8 thousand (table 1), with both the first and second generation increasing. The increase of the second generation in that period was strongest, almost fourfold. Even more strongly than among the Turkish women, who realised a slight decrease in their TFR since the mid nineties, the impression is one of stagnation among Moroccan women (figure 1). The TFR for all Moroccans in the Netherlands was 3.22 in 2004, which is at a higher level than for Morocco, which had 2.73 in 2005 (World Resources Institute). Although the estimates may not have been very accurate, the TFR of Moroccan women in the Netherlands in 1980 was 7.1 (De Jong, 2003) which was considerably higher than that of women in Morocco itself (5.4 in 1980-1984). This is caused by a combination of factors. Not only does the purpose of migration (mainly family formation, peaking in 2002-2003) contribute to a high TFR, but also the fact that the majority of the Moroccan marriage migrants come from regions with above-average fertility (the north and east of Morocco).

According to Eltigani (2001) women in Morocco increasingly postpone having children and reduce their family size. The Moroccan birth control program is highly successful, with a contraceptive use that is unparalleled in the Arab world. A possible explanation for this development, according to Eltigani, is the fact that young couples are forced to live at their parents because of the high costs of housing. More and more women in Morocco stay childless for a long time. In contrast to Turkish women, childlessness among first generation Moroccan women is slowly increasing in the Netherlands (table 2). The share of women

without children, however, is still considerably lower than among native Dutch women.

Just like in Morocco, having the first child is being postponed in the Netherlands although it is unlikely that housing problems play a major role in it. Among first generation Turkish women, who are in a comparable socio-economic position, there is hardly any postponement. The same difference between Turkish and Moroccan women was found in Belgium (Schoenmaeckers et al., 1998). Corrected for the differences in age structures, Moroccan women of the first generation have their first child over 2 years later than Turkish women of the first generation (figure 3). This means that the number of mothers under 20 in this group decreases. Nevertheless the rate of teenage motherhood among the first generation Moroccan women is 32 births per thousand among 15-19 year-olds, which is eight times higher than among native Dutch girls. The second generation differs very little from the native Dutch girls (5.5 versus 3.9 births per thousand among 15-19 year-olds; Garssen, 2005b). The age at which the second generation first become mothers also shifted well into the direction of the native Dutch women.

The main shift is in the age at which Moroccan women have their second or next child (*figure 10*). Nevertheless a large majority of Moroccan women have a second child, and an estimated 70 percent of the women now aged 35 year will eventually have a third child. The share of Moroccan women having a fourth child is expected to fall substantially. Over 60 percent of the birth cohort 1955-1959 will have a fourth child. This will be substantially less for the younger cohorts, but it is not quite possible to estimate the eventual level yet.

As is the case among Turkish women, the youngest birth cohorts have most of their fertility in the Netherlands. Two thirds of the fertility of cohort 1945-1949 was realised in Morocco; while it is less than a third for the cohort 1955-1959.

Figure 11 shows the realised fertility of the first and second generation Moroccan women and for the native Dutch women, for birth cohorts 1965-1969 and 1970-1974. As is the case among Turkish women, the fertility of the first generation only falls slightly. But the fertility among the second generation Moroccan women falls much more substantially than among Turkish women. Again the younger cohort of the second generation has a slightly higher fertility than the older cohort, but in general the figures of the second generation Moroccan and the native Dutch women differ very little. Relatively many Moroccan women in their thirties have no children (table 3). Given the sharp increase of the second generation, these developments will have a sharp downward effect on the Moroccan birth figures in the next few years.

Figure 10
Cohort fertility of Moroccan women by age of the mother, birth order, and year of birth of the mother, 1 January 2005

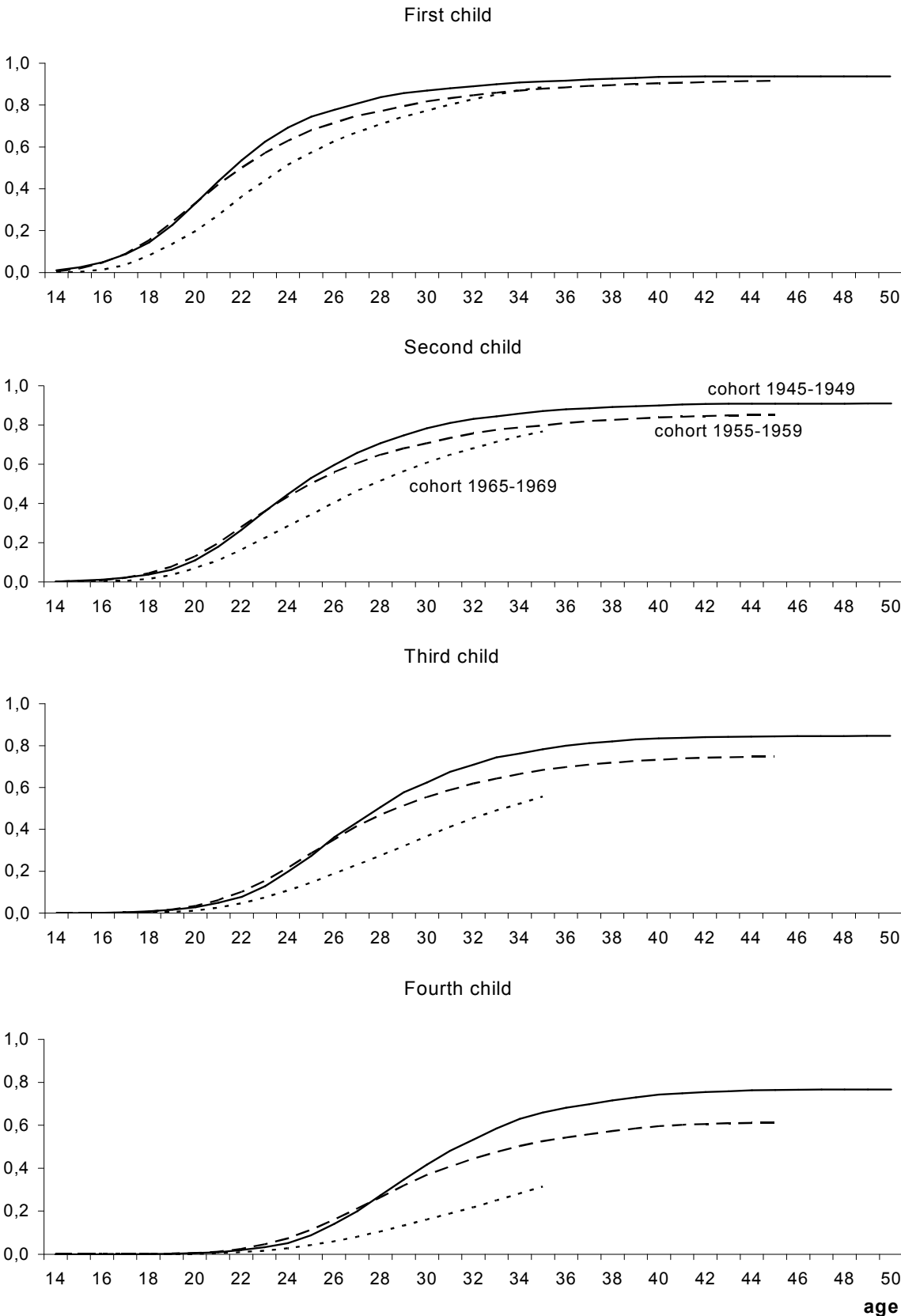
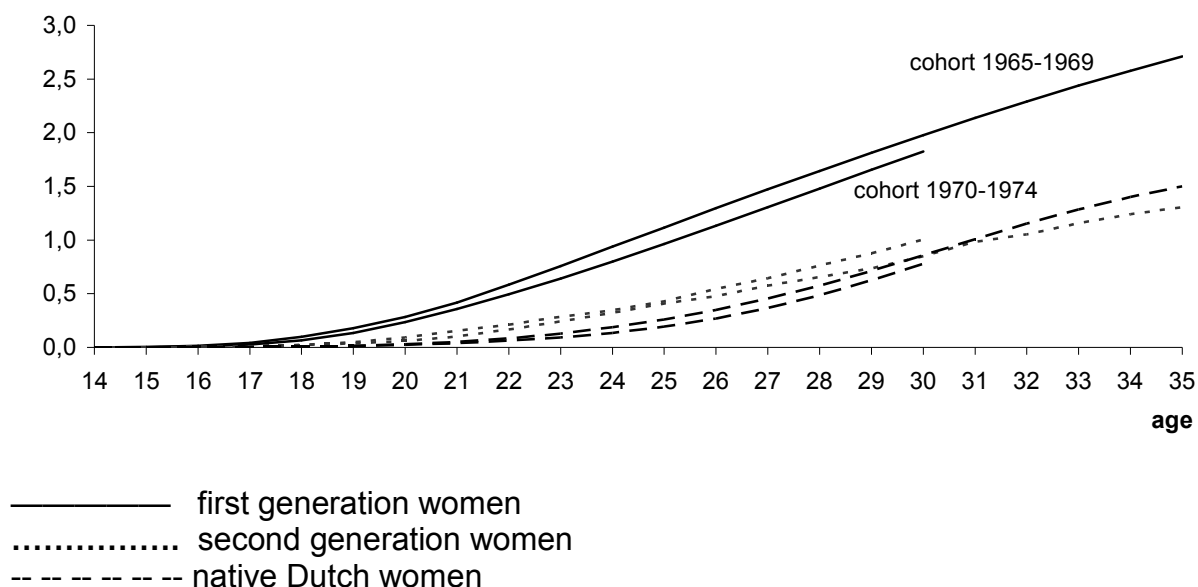


Figure 11
Cohort fertility of first and second generation Moroccan women and native Dutch women by age and year of birth of the mother, 1 January 2005



Antillean and Aruban women

Of the four main groups the Antillean (including Aruban) is by far the smallest. Moreover their numbers fluctuate most, due to the changes in size and direction of the migration between the Netherlands and the Netherlands Antilles. On 1 January 2005 there were 39.4 thousand Antillean women aged 15-49 in the Netherlands (table 1). Over a quarter were second generation. This group of Antillean women born in the Netherlands is growing much faster than the first generation, nearly doubling in the period 1996-2005.

Traditionally the fertility level of Antillean women has not been much higher than that of native Dutch women (figure 1). Transversal data on fertility have only been available since 1983, when the TFR was 1.3, well below the Dutch average. The TFR for the Netherlands Antilles is also relatively low, compared to the surrounding islands in the Caribbean. In the early eighties the TFR for the Antilles was 2.36, about 80 percent higher than the TFR of Antillean women in the Netherlands (World Resources Institute). Currently the TFR in the country of origin is just 20 percent higher.

Antillean women become mothers at a late age, albeit not as late as the native Dutch and Surinamese women. This age pattern has existed for some time. On balance the mean age at first birth has increased slightly since the mid nineties (figure 3). First generation Antillean women born in 1945-1949 became mothers even later than native Dutch women (table 4). Currently Antillean women of the second generation also become mothers slightly later than native Dutch women.

Despite this there are huge differences within the Antillean group, which explain why Antillean women start motherhood before they are twenty more often than women from any other group. Among the first generation the teenage birth rate is comparable to that of Turkish women, but among the second generation it is much higher. Moreover, they are also often very young: almost one in three Antillean teenage mothers is 17 or younger when they give birth. There are also more social problems among Antilleans. In contrast with Turkish and Moroccan teenage mothers, most (over 7 in 10) have no steady partner. They are more likely to be single parents for a long time (Garssen and Harmsen, 2005).

Table 4
Mean age at first birth of first generation and native mothers, by foreign background and year of birth of the mother, 1 January 2005

Year of birth of the mother	Turkey	Morocco	Suriname	Neth. Antilles and Aruba	Afghanistan	Iraq	Iran	Somalia	China	Native Dutch women
1945-1949	22.0	22.7	22.3	25.4	28.3	29.1	27.3	28.2	23.8	24.7
1950-1954	21.9	22.5	22.9	25.5	27.0	27.7	26.5	26.4	24.3	25.5
1955-1959	22.2	23.2	23.6	25.2	25.2	26.4	25.9	24.6	25.9	26.9
1960-1964	22.1	24.5	24.5	24.8	24.0	25.5	25.0	25.3	26.7	28.0
1965-1969	22.6	24.6	25.0	24.4	23.0	24.9	25.6	25.2	26.9	28.5

More often than any of the main groups Antillean women have no children at all. The share of childless Antillean women is even higher than among the native Dutch women in the older cohorts (table 2). It is less common among the younger birth cohorts to have no children than among the native Dutch women. This is due to the relatively high fertility of the younger first generation, especially among women up to their mid twenties. The age pattern of childlessness of the second generation is at a comparable level to that of native Dutch women (table 3). At age 35, childlessness among the second generation Antillean women is even substantially higher than among native Dutch women of that age.

Only 59 percent of the Antillean cohort 1945-1949 had a second child (*figure 12*). This share is likely to be about 5 percent point higher in cohort 1955-1959 and cohort 1965-1969.

Relatively many Antillean women came to the Netherlands with one or more children. This is also true for the youngest cohorts, in contrast with the other groups described earlier. Antillean women born in 1960-1964 realised 55 percent of their fertility outside the Netherlands. This is less than a quarter for Surinamese women of this age. The freedom of movement between the Netherlands and the Netherlands Antilles plays a major role in this.

The first generation Antillean women is more fertile than the second generation, but the differences between the generations are smaller than in the other groups (*figure 13*). Eventually the number of children of the first generation birth cohort 1955-1959 is 6 percent higher than that of native Dutch women, while the second generation of the same cohort ends up nearly 9 percent lower. The cumulative

fertility of the younger birth cohort (1965-1969) of the first generation is slightly higher than that of the older birth cohort, but the reverse is true for the second generation: the cumulative fertility of the second generation Antillean women born in 1965-1969 is about 15 percent lower than that of the second generation from 1955-1959.

The second generation makes up about a quarter of the Antillean women, which means that Antillean women will not have a significant up or downward effect on the Dutch fertility figures in the near future.

Figure 12
Cohort fertility of Antillean/Aruban women by age of the mother, birth order, and year of birth of the mother, 1 January 2005

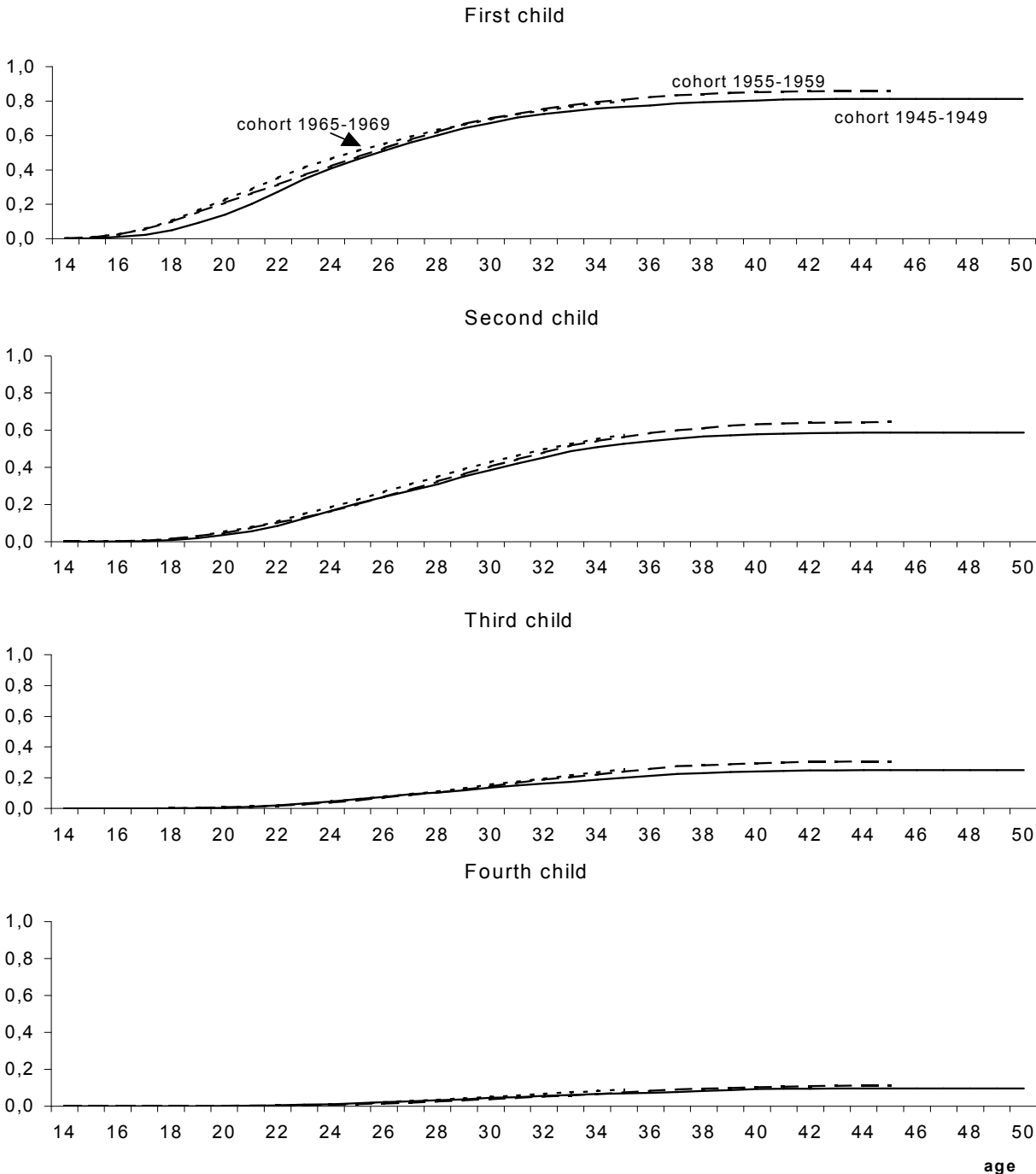
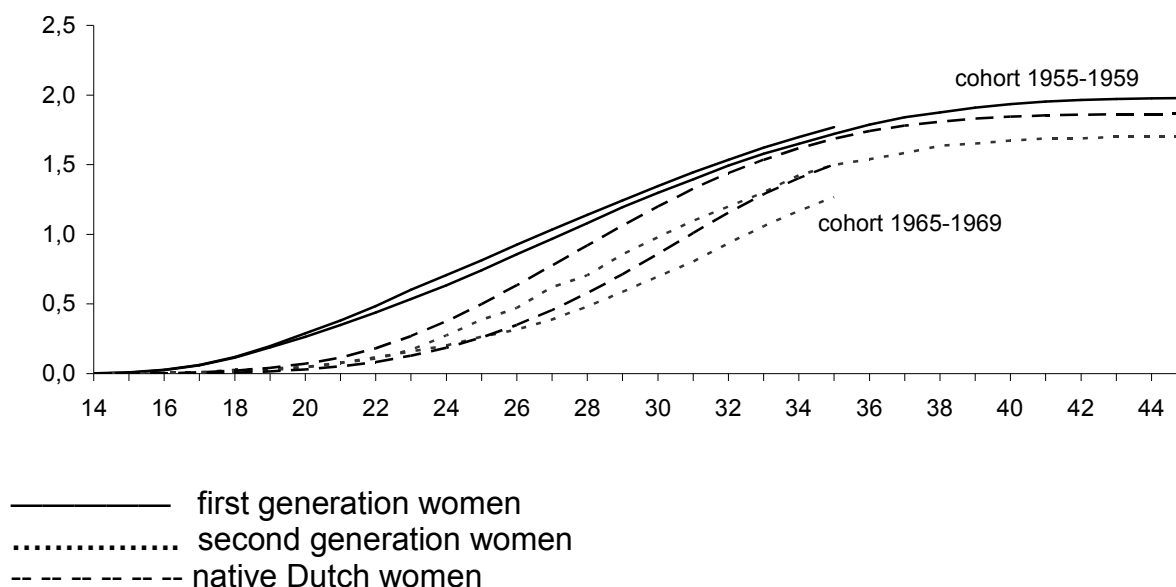


Figure 13
Cohort fertility of first and second generation Antillean/Aruban women and native Dutch women by age and year of birth of the mother, 1 January 2005



Chinese women

Apart from the four major non-western groups discussed before, the largest group among the non-western women aged 15-49 are the Chinese women, of whom 14.9 thousand lived in the Netherlands in 2005. In the last decade the group more than doubled in size (table 1). In contrast with the other small groups of women with a non-western background, immigration of Chinese women increased substantially after 2000. Only in 2004 did slightly fewer Chinese women immigrate (2.2 thousand) than in the previous year (2.4 thousand). Between two thirds and three quarters of the female immigrants was aged between 15 and 50. Eight in ten was unmarried when they immigrated in the past decade. Study was the main migration motive.

Although many Chinese only stay in the Netherlands for a short time, the group has a long migration history. The first Chinese arrived at the end of the 19th century. Since the 1950s, when Chinese restaurants became popular, the group increased steadily. It is the only one of the smaller groups of women with a non-western background with a second generation that is significant in number. The numbers are often too small to be able to compare fertility of the first and the second generation. This is even more true for the groups we will describe below.

Chinese women of the birth cohort 1965-1969 were on average the oldest of the smaller groups at the birth of their first child (table 4). Childlessness in the group is comparable with that of native Dutch women (table 2), with about 13 percent of the Chinese women born in 1955-1959 remaining childless. Slightly less than two thirds has at least two children, and a third has three or more children. Of the cohort 1965-1969 (ten years younger) 26.3 percent had no children at the age of 35. This

share is slightly higher than among native Dutch women (24.5 percent). In contrast to the other groups, except the Antilleans, the younger cohorts realised much of their fertility outside the Netherlands. About a third of the children of the cohort 1960-1964 is born outside the Netherlands.

Figure 14 shows the realised fertility of women born in China (as well as the other smaller groups which will be discussed below). The oldest cohort, with an average of 2.37 children, has had more children than the native Dutch women (1.91 children) born in the same period, but the youngest cohort has a slightly lower realised fertility (1.41 children at age 35 for Chinese women versus 1.50 for native Dutch women).

Figure 14
Cohort fertility of first generation mothers, by age, foreign background and year of birth of the mother, 1 January 2005

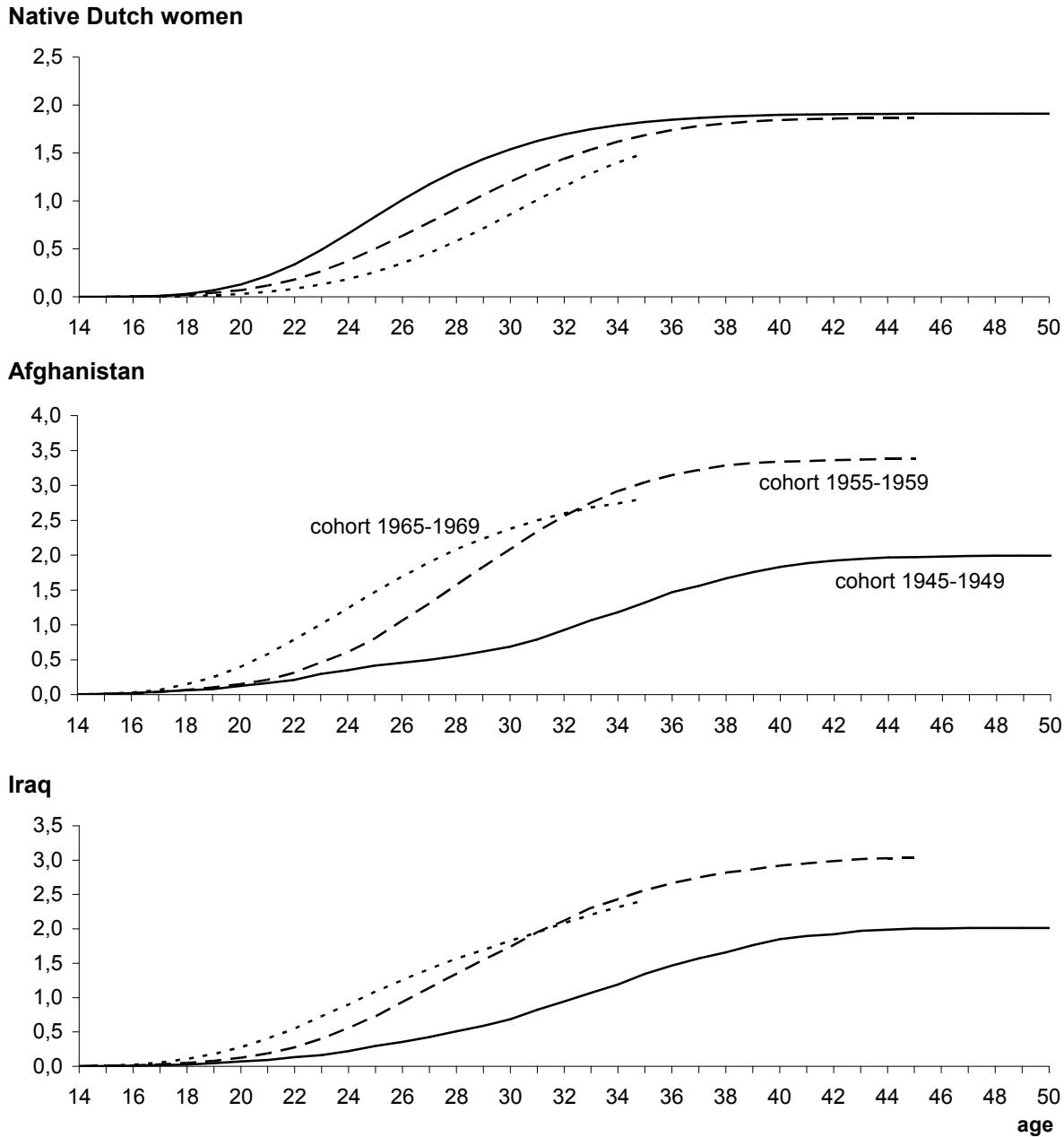
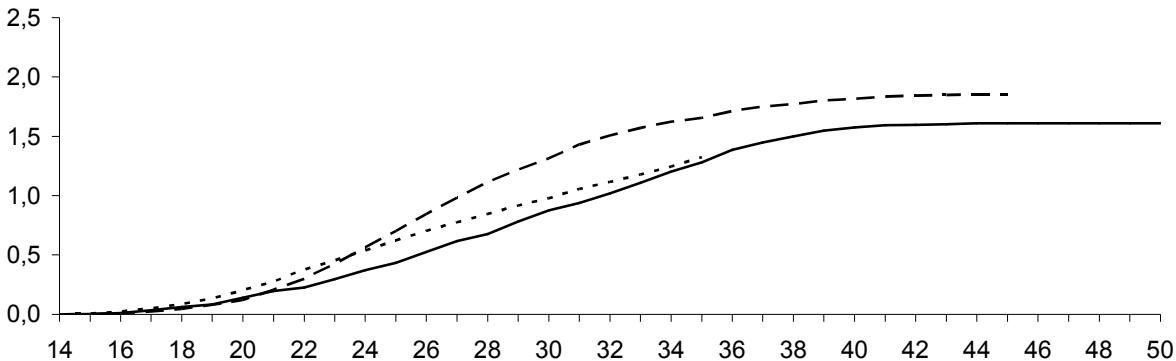
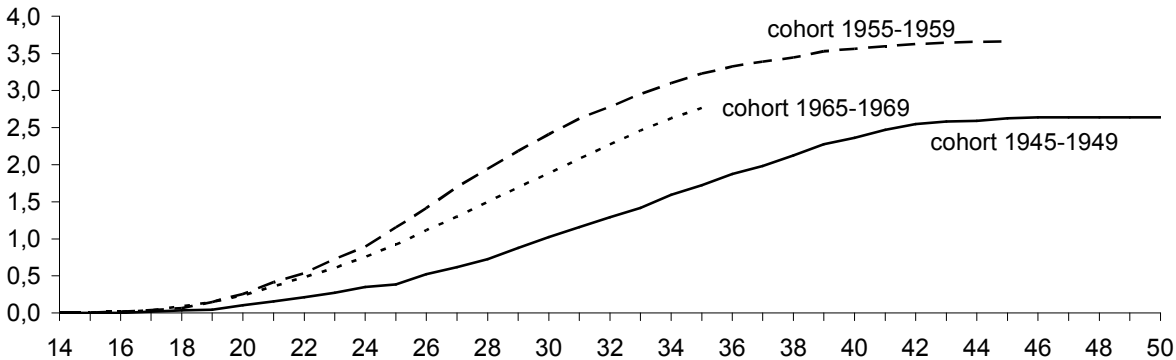


Figure 14
Cohort fertility of first generation mothers, by age, foreign background and year of birth of the mother, 1 January 2005 (end)

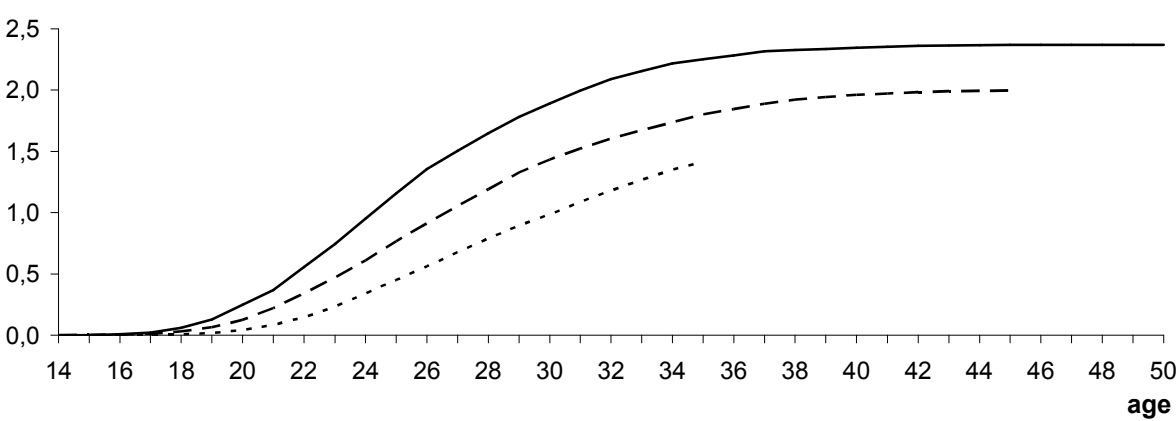
Iran



Somalia



China



Iraqi women

There has been a huge increase in the number of Iraqi women aged 15-49 from 2.3 thousand in 1996 to 10.6 thousand in 2005 (table 1). Most female immigrants came in 1997 and 1998 (2.3 thousand in both years). Since 2000 immigration from Iraq has fallen sharply, with less than 500 Iraqi women immigrating in 2004. Six in ten of the women were aged between 15 and 50, and over half were unmarried.

Iraqi women born in 1965-1969 were on average 24.9 years old at the birth of their first child. The ages presented in table 4 show a curious pattern that is also seen in figure 14. The oldest cohort was supposedly much older when they became mothers for the first time than the younger cohorts and have realised far fewer children. Almost a third of the 55 year old women was supposedly childless (table 2). These are improbable figures, already because of the much higher fertility in Iraq. The TFR was 4.77 in recent years, and two decades ago it was as high as 6.35 (World Resources Institute). It is likely that not all children of the older Iraqi women born abroad are entered in the Dutch municipal population registers. The figures for the younger cohorts seem more reliable. They indicate a relatively high number of children (a TFR of 3.03 for 45 year-old women of the cohort 1955-1959), which is nevertheless substantially lower than in their country of origin.

Afghan women

The fastest growing group, relatively speaking, is that of the Afghan women, from 1.1 thousand in 1996 to 9.4 thousand in 2005 (table 1). The most female immigrants from Afghanistan were registered in 1999, namely 2.3 thousand. Since then the number has dropped to just over 500 in 2004. Over half the women were aged between 15 and 50 and two thirds were unmarried at the time of immigration.

What is true for the Iraqi women, also applies to the Afghan women. The difference in fertility between cohort 1945-1949 and cohort 1955-1959 is even greater among Afghan women: at age 45 the realised fertility of the younger cohort was more than 70 percent higher than that of the older cohort.

Again the only data that can be used for an overall impression of the fertility of the group are the data on the youngest cohorts. The conclusion based on the various data is that Afghan women – mostly first generation – relatively rarely have no children: the percentage of childless women aged 35 is 11.3 (table 2), slightly lower than that of the Moroccan women of this age. The actual percentage may be slightly lower since registration may be incomplete.

The age at the birth of the first child is also low, and comparable to that of Turkish women). The realised fertility of Afghan women is among the highest of the women with a non-western background, namely 3.38 children per woman for women aged 45 from the 1955-1959 cohort (figure 14).

Iranian women

The number of Iranian women aged 15-49 more than doubled between 1996 and 2005, from 4.1 to 8.5 thousand (table 1). The immigration peak from Iran came in 1996, with 1.2 thousand women aged 15-49. Immigration from Iran has been very modest in size in recent years. Over six in ten female immigrants from Iran aged 15-49 were unmarried at the time of immigration from Iran in the past decade.

Among the older Iranian women the children born abroad seem to be under-registered as well, although not by as much as with the Afghan and Iraqi women. The fertility of all cohorts of Iranian women is at a lower level, while the age at the birth of the first child is higher. The low fertility is partly due to the remarkably low fertility in Iran. Twenty years ago the TFR there was 6.63, higher than in Iraq, but currently it has fallen to 2.33 (compared to 4.77 in Iraq; World Resources Institute). Also important is that the Iranians are the most highly educated of all recent groups, even higher than the native Dutch (Zorlu and Traag, 2005).

Childlessness of Iranian women is comparable to that of native Dutch women (table 2). Also the realised fertility at 45 of the Iranian women (cohort 1955-1959) is comparable with that of native Dutch women with 1.86. The fertility of the younger generations will probably be at an even lower level (figure 14).

Somali women

The smallest increase in the past decade of all groups discussed here is among Somali women aged 15-49. In the mid nineties and in 2000 a substantial number of Somali women immigrated of whom eight in ten in the 15-49 age bracket were unmarried. In contrast to most other groups of women with a non-western background, a substantial amount of emigration took place from the Netherlands. The emigration (including the net administrative corrections) has been over a thousand Somali women a year since 2000, many leaving for the UK.

It is also true for Somali women that the data presented in table 4 on the mean age at first birth is unreliable due to an incomplete registration of earlier births outside the Netherlands. The same is true for the figures on childlessness in the group (table 2). According to the Dutch population registers no less than a third of all Somali women born in 1945-1949 have no children. But younger Somali women seem to be childless much less often than even the older native Dutch women.

The TFR of Somali women in the country of origin is the highest of any country of origin described here, with 7.25 (World Resources Institute). Also in the Netherlands Somali women have the most children. At 45 Somali women of the birth cohort 1955-1959 on average have 3.66 children as compared to 2.50 for all non-western women together. The younger cohorts are also expected to realise a high fertility (figure 14). Apart from the high fertility in the country of origin, the fact that Somali women have the lowest education level of all new groups also plays a role here (Zorlu and Traag, 2005).

5. Summary and conclusions

In the development of Dutch fertility the role non-western women play is increasing. Between 1996 and 2005 the number of native Dutch women in the fertile ages (15-49) fell by 270 thousand, whereas the number of non-western women of the age bracket increased by 173 thousand. The group of western non-native women stayed about the same. The share of the non-western women in the total number of women aged 15-49 increased from 8.1 to 12.7 percent in that period.

Non-western women generally raise the Dutch birth rate because of their often higher fertility. Since 1973 the Dutch birth rate has been below the replacement level, but despite this it is slightly higher than the EU average. This relatively high level is not only due to the presence of women with a non-western origin but also to the relatively high fertility of the native Dutch women themselves.

Although period figures show that non-western and native Dutch fertility are converging in general, it seems that the convergence has been slowing down since the mid nineties compared to earlier years. In the case of Moroccan women there is even stagnation. We described the developments in the realised fertility per birth cohort by origin and generation to explain the developments surrounding the fertility of non-western women. The combination of period and cohort data produced the following picture.

Native Dutch women born in the second half of the fifties on average had 1.87 children by 2005. The fertility of younger native Dutch women will probably only be slightly lower, although it is difficult to estimate the end level, due to their fairly young ages and the frequent postponement of fertility. The mean age of native Dutch women at first birth (29.8 in 2004) is still increasing somewhat, but not as fast as before. Native Dutch women seem to be approaching the limits of late motherhood. This is one of the reasons why childlessness is clearly on the rise. Of the native Dutch women of birth cohort 1945-1949 73.3 percent had a second child at 45, as compared to 69.9 percent of the birth cohort ten years younger. Not only childlessness is on the increase, but also the share of native Dutch women who have a third or fourth child. Of the cohort 1955-1959 25.0 percent had three children, versus 21.8 percent of the cohort that is ten years older.

Surinamese women make up the largest group with a non-western background in the 15-49 age bracket, with 105 thousand women on 1 January 2005. There is much diversity in the fertility behaviour within the group. On average Surinamese women of both generations first become mothers at a late age. The second generation postpone motherhood to age 29.1 on average, which is only 0.8 years younger than native Dutch women. At the same time there are relatively many very young mothers. Of all non-western girls of the second generation the Surinamese girls become teenage mothers most often. Childlessness among Surinamese women is comparable to that of native Dutch women.

The fertility of young Surinamese women is considerably lower than that of the older women. The realised fertility of cohort 1965-1969 approaches the fertility of native Dutch women of the same birth cohort. The fertility of the second generation is even higher than that of the native Dutch women at age 35; but they also remain childless considerably more often. They will probably eventually have about 20 percent fewer children than native Dutch women.

All in all this group exerts a slight downward influence on the Dutch fertility rate, which is expected to extend in the future.

The group of *Turkish women* aged 15-49 is only slightly smaller than the group of Surinamese women. Not just the second but also the first generation increased in size. The TFR of Turkish women fell in the past decade, but not as fast as the drop in fertility that took place in Turkey itself. Ten years ago Turkish women in the Netherlands still had a considerable lower TFR than women in Turkey, but currently the rates are at about the same level. Most Turkish women of the first generation (about 95 percent) become mothers, and still have their first child at a very young age. The age at first birth of the second generation is rising. The second generation differs little from native Dutch women in this respect.

Relatively many Turkish women of the first generation have their first child at age 19, raising the figure for motherhood among teenagers for this generation. Most of these teenage mothers are married. Among the second generation, motherhood among Turkish teenage girls is relatively rare.

As far as realised fertility is concerned, the younger cohorts of Turkish women of the first generation show a pattern that closely resembles that of the older cohorts. The difference lies in the number of Turkish women who have a third or next child. That is where the decrease is, although the share of Turkish women with a third or next child is higher than among the other groups except the Moroccan women.

The substantial migration for family formation purposes in the last few decades explains why the TFR of Turkish women has only been falling slowly since the mid nineties. The first generation mainly came to the Netherlands for this purpose. The women involved turn out to be more traditional, in terms of fertility behaviour, than the average woman in Turkey. Given the substantial dip in migration for family formation purposes and the changes in the ratio between the first and second generation, the TFR of the total group of Turkish women is expected to diminish further in the next few years. The second generation will play a major role in the decrease.

There is also an increase in the first and especially the second generation of *Moroccan women*. The TFR of the group has stagnated since the mid nineties, and is even at a higher level than the TFR in Morocco. Again the purpose of the migration (family formation) and the high fertility in the regions of origin in Morocco play a major role. In contrast to the Turkish women, childlessness among Moroccan women of the first generation is slowly increasing. Just like in Morocco the women delay having their first child in the Netherlands. There is still the delay found earlier by Alders (2000b). Therefore the number of teenage mothers among the first generation is falling. The second generation shows little difference with the native Dutch women in this respect.

The main shift is in the age at which Moroccan women have their second child. Nevertheless Moroccan women have a third child more often than the other groups. But among the younger birth cohorts the share of women with a fourth child is falling rapidly.

The cohort fertility of the first generation Moroccan women has only fallen slightly over time. The fertility of the second generation is falling much faster than among the Turkish women. There is very little difference between the fertility of the second generation and the native Dutch women. Second generation Moroccan women in their thirties relatively often have no children, just like their native Dutch

counterparts. Given the sharp increase of the second generation, the Moroccan fertility will fall sharply over the next few years.

The fertility level of *Antillean women* has long been comparable or lower than that of native Dutch women. In 2004 the TFR of Antillean women was the same as that for the Netherlands as a whole (1.73).

Antillean women become mothers at a relatively late age. The second generation is even slightly older at the birth of the first child than native Dutch women. However, there are major differences within the Antillean group. Just like Surinamese women, the Antillean women have their first child quite late, but they are nevertheless also overrepresented among the teenage mothers.

There is much childlessness among the Antilleans, particularly among the older birth cohorts, but also among the second generation. At age 35 more second generation Antillean women are childless than native Dutch women. The differences in cohort fertility between the first and the second generation are smaller among Antilleans than among the other groups. The realised number of children of the first generation is slightly higher than that of native Dutch women, and that of the second generation is slightly lower. Antillean women will not have any major influence on the Dutch fertility rate in the near future.

The smaller groups described here tend to have a much more recent migration history. There are major differences in fertility between them. *Chinese women* of the 1965-1969 birth cohort have slightly fewer children than native Dutch women at age 35 (1.41 versus 1.50). The figure is even lower for *Iranian women* at this age (1.32). Clearly more fertile are the women from *Iraq* (2.42 children at age 35), *Somalia* (2.76) and *Afghanistan* (2.82).

Together the 15-49 year-old women of these group make up just 1.2 percent from all women of this age in the Netherlands. This, plus the fact that these groups will not grow as rapidly as before and show a relatively low fertility, makes that these new groups will have little influence on the Dutch fertility rates.

The fertility levels of non-western and native Dutch women still converge, but there are major differences within and between groups. The first generation of the main groups (Turkish and Moroccan women) still have a high fertility rate, even higher than that of the women in their countries of origin. The cohort figures show a slowly decreasing fertility. The second generation on the other hand has a realised fertility and a mean age at first birth that barely differ from those of native Dutch women. Turkish and Moroccan women in their early thirties even have slightly fewer children than native Dutch women at this age. They no longer take up a middle position between the first generation and the native Dutch women, as concluded by Alders (2000a), but resemble native Dutch women more than their mothers in terms of fertility.

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