

Sub-replacement fertility intentions in Austria: Exceptional case or a likely future trend in other European countries?

Tomáš Sobotka,

Vienna Institute of Demography, Vienna, Austria

Email: tomas.sobotka@oeaw.ac.at

Draft : 11 April 2008

Work in progress, please do not cite without author's permission!

Abstract

Fertility rates in most European countries declined to low levels, whereas the mean intended family size usually remained at or even above two children. Austria appears to be one of the notable exceptions from this pattern. Combining the data of 1986-2001 *Microcensus* surveys I reconstruct trends in fertility intentions across time and over life course for Austrian women born since the 1950s. I analyse the overall evolution of intended family size as well as parity-specific trends in childbearing desires. Already in 1986 young adults in Austria expressed fertility intentions that were below the replacement-level threshold and women born since the mid-1950 consistently desired fewer than two children on average throughout their reproductive lives. Highly educated women have slightly lower family size preferences in their mid-to late-twenties and a considerable portion of their childbearing plans still remains unrealised when they reach late thirties. Young adult women in some other European countries have also experienced fall in their desired family size to sub-replacement levels. This may signal a beginning of a new era, when the dominance of a two-child family model may gradually erode.

Keywords: Austria, fertility, fertility intentions, family size, young adults

1 Introduction: Low intended family size in Austria

Different studies have demonstrated that while period and cohort fertility rates in most European countries declined to low levels, the mean intended family size typically remained at or even above two children per woman (e.g., Bongaarts 2001, van Peer 2002a and 2002b). Recent analysis of the 2006 Eurobarometer survey (Testa 2006, 2007) corroborates this finding: for the 25 countries of the European Union as of 2006 (EU-25), the mean ultimately intended family size among younger respondents in two broader age groups (15-24, 25-39) remains above two children per woman.

Austria, which records at present low period and cohort fertility levels, appears to be one of the most notable exceptions from this pattern. The 2006 Eurobarometer study analysed by Testa (2007) suggests that Austrian men and women display not only the lowest ideal family size, but also the lowest desired and intended family size in Europe. Similarly, an earlier analysis of the 2001 round of Eurobarometer data indicated that ideal and expected family size among men and women in Austria and Germany has fallen to sub-replacement levels (Goldstein, Lutz, and Testa 2004). Thus, it is possible that persistent low fertility has been increasingly reflected in

family size desires and preferences of Austrian population. The existing data, however, do not suggest a particularly widespread preference of childlessness among Austrian men and women (Sobotka and Testa 2008).

Fertility level in Austria is low (but not exceptionally low) despite relatively generous monetary support to families with children (OECD 2003). In 2006, the period TFR stood at 1.40, whereas the parity-specific fertility indicator based on birth interval distributions, PAP, was 1.64 (Prskawetz et al. 2008). Completed fertility rate of women born after 1965 is expected to drop below 1.7 and childlessness of women born in 1966 will reach around 18% (Prskawetz et al. 2008) and may exceed 20 percent among women born in the 1970s (Sobotka 2005a). However, current low fertility and high childlessness levels in Austria are not without precedent: more than a quarter of Austrian women born in the early 20th century remained childless and the estimated completed fertility of women born in 1900 was 1.75 (Prskawetz et al. 2008; Statistics Austria 1996).

A combination of low fertility rates and low desired family size suggests that Austria constitutes an example of a society where several decades of low fertility might have engendered a preference for small family size and, eventually, also a high preference of childlessness. While the *Eurobarometer* survey is informative for identifying broader trends in fertility ideals and desires, its small sample size makes it of relatively little use for a more detailed analysis of family-size preferences in individual countries of Europe. To find out whether the general findings on low intended family size in Austria reported in *Eurobarometer* survey are also confirmed in larger datasets we use a set of Austrian *Microcensus* surveys that took place in 1986, 1991, 1996, 2001 and 2006. With an exception of short reports of major results published in *Statistische Nachrichten* (Findl 1989, Maxwald 1994, Hanika 1999, Klapfer 2003), *Microcensus* data have been neglected for this purpose. Although *Microcensus* is not a panel study and thus does not allow an investigation of the realisation of fertility intentions at an individual level, it enables a thorough analysis of trends in desired family size and intended parity composition over time and for specific cohorts, age groups, and socio-economic categories of women. As the *Microcensus* survey gives respondents an explicit option to express uncertainty about their childbearing intentions (whereby those who are uncertain are asked to specify a range of their additional intended number of children), it also provides insights about the firmness of findings on desired family size and the importance of uncertainty for different age and parity categories of women of reproductive age. The large sample size (see below) is another clear advantage of this survey.

This contribution is organized as follows. First I outline the main research questions and issues addressed in this study and give a brief description of the datasets. Then I study general trends in intended family size among Austrian women by age and birth cohort in 1986-2006 and discuss how to deal with the responses of respondents that were uncertain about their childbearing intentions. Subsequently, I look at the shifts in fertility intentions of young adult women and analyse parity-specific shifts in intended family size. Next, I analyse fertility intentions by the highest completed level of education. The concluding section provides discussion of major findings in relation to changes in fertility intentions among young women in selected European countries. Specifically, it discusses whether Austria constitutes an exception or a trend-setting example of a decline in intended family size below the replacement level threshold.

2 Relevance of this study and the main research questions

2.1 The ‘gap’ between fertility intentions and achieved fertility

The frequent findings on the continuation of replacement-level fertility intentions in Europe gave rise to the notion of a ‘gap’ between fertility intentions and desires on one hand and the ultimately achieved family size on the other hand. This ‘gap’ can be seen either as a natural aggregate outcome of the complex decision-making process of individual men and women during their reproductive life course or as a worrying sign of unfulfilled fertility desires. One line of arguments sees it as a result of a conflict between individuals’ family size preferences and the competing alternatives in the domain of labour career and leisure activities (e.g., Bongaarts 2001). Given that the use of highly reliable contraception has become a norm in most European countries, eliminating thus some ‘excess’ unplanned and unwanted fertility, the divergence between fertility intentions and outcomes may be seen as a rather logical and, indeed, inevitable, result. In the view of Demeny (2003: 23)

...expressed preferences concerning the number of children desired may well be genuine, but they are also in competition with other preferences the satisfaction of which is, at least in principle, attainable in modern societies. The outcome of such competition is not necessarily in favor of children.

In addition to competing preferences, the divergence between intended and realized fertility may also be fuelled by structural constraints to childbearing and adverse life circumstances—such as lack of resources (housing, monetary support), poor health, lack of a suitable partner, partnership break-up or infertility—many of which unfold during the life course (e.g., Quesnel-Vallée and Morgan 2004). As a brief summary, Morgan (2003: 599) suggests that

Most women want children, and their mean intentions approximate what is needed for replacement-level fertility. But as women age, they are faced with a set of competing demands that are most easily accommodated by a delay in fertility. Postponement is a major reason for contemporary low fertility.

A disagreement between partners can be perceived as a special type of constraint for realisation of fertility plans. A more egalitarian model of partnerships, typical of advanced societies, implies that whenever conflicting preferences between partners arise, the resistance against having a child frequently prevails (Thomson and Hoem 1998, Voas 2003, Berrington 2004). Thus, discordant fertility intentions may explain a fraction of the observed ‘unmet desires’ for children as well as some additional postponement: “Even in a situation where both men and women separately have preferences that would produce total fertility above replacement levels, the interaction of their preferences can easily lead to much smaller families” (Voas 2003: 643).

Fertility decisions are often conditional and, as Westoff and Ryder (1977: 449) may be interpreted in terms “this is how I think I will behave if things stay the way they are now” (Westoff and Ryder 1977: 449) or, alternatively “if things work out as I expect” (Rindfuss, Morgan, and Swicegood 1988: 190). Clearly, many individuals cannot foresee how their life chances and socio-economic conditions will evolve in the future (Rindfuss, Morgan, and Swicegood 1988) and uncertainty about fertility desires is frequent (Westoff and Ryder 1977, Morgan 1981).

Morgan and Hagewen (2005) also stress the persistence and pervasiveness of a two-child family norm in the United States, which often coincide with a negative view on childlessness and one-child families (Hagewen and Morgan 2005). Plausibly, the perceived normative pressure for childbearing may prompt some individuals to exaggerate their fertility desires in surveys, especially when these surveys do not explicitly take uncertainty into account.

In a yet different perspective, the ‘gap’ between desired and realized fertility has been interpreted as a sign of an ‘unmet desire’ for children, whose realization is partly hindered by obstacles that should be alleviated by policy action (Chesnais 2000, European Commission 2005, McDonald 2006). Commenting on a relatively high ideal family size prevailing in developed countries, McDonald (2006: 485) argues that

In expressing higher “ideal preferences” on average, women are effectively commenting upon the nature of social-institutional setting in which they consider having children. They are saying that, in a different institutional setting, they believe they would have had more children.

Summing up, these arguments provide a clear reasoning why fertility intentions remain well above the level of the eventually realised fertility and they do not suggest an imminent fall in intended family size well below the replacement threshold. Such a possibility has been outlined with respect to changes in ideal family size by Lutz, Skirbekk and Testa (2006: 179), who sketch out a hypothesis of a recurrent decline of ideal and realized family size:

Once the number of children (siblings, friends, children seen in other families, media) experienced during the process of socialization falls below a certain level, one’s own ideal family size would become lower, which in course may result in a further decline in actual family size and still lower ideals in the subsequent generations.

Although ideal family size cannot be equated with intended family size, it is likely that the same set of factors would also affect fertility intentions and desires, leading to their substantial decline. But other factors may play a role as well. In the view of different arguments about the intentions-behaviour ‘gap’ provided above, young adults may reduce their intended family size by becoming more realistic and critical in the formulation of their fertility goals. They can do so by better taking into account competing lifestyle alternatives and by increasing their awareness of different obstacles that may unfold later in life as well as by considering the low likelihood of a substantial change in the institutional support to families. This can happen especially if and when the societal norms against childlessness and one-child families erode over time (Hagewen and Morgan 2005), probably with a substantial time lag after the decline of fertility to low levels.

Such a change may be currently under way in a number of European countries. Thus, it is worthwhile to analyse in detail fertility intentions in Austria and, subsequently, relate them to the data for other countries. If Austria constitutes an outlier, possibly together with Germany, we should seek to explain the peculiar emergence of low fertility intentions there. If, however, other European countries are on a path to low fertility desires, this may affect our hypothesizing about future fertility change. As long as fertility desires remain relatively high (i.e., around the replacement level), a

further ‘recuperation’ in period fertility rates may be expected in the future, if and when societal conditions become more conducive to childbearing (e.g., Bongaarts 2001). A marked decline in intended family size would, on the other hand, make a future increase in fertility considerably less likely; in fact, it may precede yet further ‘reciprocal’ decline in fertility rates (Lutz, Skirbekk and Testa 2006).

2.2 Research questions and hypotheses

Combining data of the 1986-2006 *Microcensus* surveys I reconstruct trends in fertility intentions across time and over life course for Austrian women born in 1956 and later. I compare an aggregate consistency between intentions and subsequent behaviour and ask a number of research questions pertaining to the overall evolution of fertility intentions as well as parity specific trends. In reconstructing these trends, I address the issue of intention uncertainty and the interpretation of the responses of women that were indecisive about their reproductive intentions. The discussion of uncertainty is crucial for the analysis of the overall trends, as different ways of including or excluding uncertain respondents yield different results of the aggregate mean intended family size (e.g., Smallwood and Jefferies 2003). In addition, the analysis of uncertainty is also important for an understanding of the firmness of fertility intentions and their evolution over the life cycle. Morgan (1981: 268) argues that intentions, unlike births, are not necessarily dichotomous and uncertainty should be analysed as “a real phenomenon inherently part of fertility decision making.”

I also analyse social status differences in fertility intentions, namely the role of education. This focus is motivated by low fertility and high childlessness evidenced for women with university education.¹ In addition, the analysis of education differentials also pertains to the notion of difficulties of combining motherhood and work career for highly-educated women, owing to relatively underdeveloped childcare facilities and policies strongly supportive of full-time parental homecare when children are young (OECD 2003). These policies have markedly more serious consequences for employment career and income of highly educated women.

The research questions addressed in this paper can be summarized as follows:

1) *Trends in desired family size*

- Do *Microcensus* surveys show a downward shift in the mean intended family size among younger women in Austria, as suggested by the *Eurobarometer* 2001 and 2006 surveys?
- Have fertility intentions fallen below two children per woman among the younger age groups (below age 30) or do sub-replacement intentions emerge among the ‘older’ women as a result of a downward revision of their initially higher desires?
- Are sub-replacement intentions mainly linked to an increase in intended childlessness or are they more closely related to the decline in the mean intended family size of those who plan to become mothers?

¹ According to the 2001 census data for Austria the mean number of children per woman with university education born in 1955-59 was 1.35 and almost 30% of these women remained childless (Prskawetz et al. 2008, Spielauer 2005, Statistics Austria 2005).

2) *The role of uncertainty*

- How does uncertainty about the intention to have children change with age?
- How does uncertainty affect estimates of the mean desired family size?

3) *Parity-specific trends in fertility intentions*

- Does a two-child family norm still dominate fertility intentions of different cohorts, age groups and education groups?
- Is there a significant percentage of women who intend to remain childless or prefer to have only one child already at a young age?

4) *The role of education*

- Do highly educated women constitute ‘forerunners’ in the spread of low fertility intentions?
- If so, is the ‘gap’ between the intentions of the higher- and lower-educated women closing over time?
- Is an intention to stay childless typical of the higher-educated women? (*role incompatibility hypothesis*)

Despite working with detailed individual-level data, this study remains grounded at an aggregate level. It does not model fertility intentions and, when analysing differences and trends by age, cohort, achieved level of education and parity, it does not control for the confounding effects of other important covariates, such as place of residence, partnership status, or migration history. Thus, only general associations are shown and the study does not comment about the causal nature of different findings. A more detailed and sophisticated analysis of factors influencing fertility intentions in Austria needs to be done in the future. Another possible drawback of this paper is that the *Microcensus* surveys of 1986-2001 ask about future reproductive desires without specifying time horizon for their realisation. Thus, many respondents who were not, at the time of the survey, contemplating about their family-building plans, may express uncertainty about their future plans.

Although some researchers make a distinction between them, I use the terms ‘intentions,’ ‘desires,’ and ‘plans’ interchangeably in this study. Similarly, I use interchangeably the terms ‘fertility intentions’ and ‘reproductive intentions’.

3 Data and methods

3.1 Microcensus data on intentions, 1986-2006

Austrian *Microcensus* survey is a quarterly representative household survey organised by Statistics Austria and primarily focused on employment and living conditions. At present it contains about 22,500 households.² Once a household is selected, participation is compulsory and stipulated by the law; hence, non-response is very low. The survey is a part of a network of *Labour Force Surveys* conducted in all the countries of the EU as well as the EU candidate countries (Croatia and Turkey) and

² More information on Austrian *Microcensus* survey is provided in German at http://www.statistik.at/web_de/frageboegen/private_haushalte/mikrozensus/index.html

the three EFTA countries (Iceland, Norway, and Switzerland).³ Selected rounds of *Microcensus* surveys in Austria, conducted in 1986, 1991, 1996, 2001, and 2006 included an additional module with the questions on fertility intentions, asked to a sample of participating women aged 20-40 years (in 2001 these questions were a part of a larger special module on the family).⁴ Differently from the core module of *Microcensus*, questions on childbearing intentions were not asked about persons who were not present at the interview.⁵

Since the intention questions were not included in the core *Microcensus* questionnaire, respondents to the regular survey were asked if they are willing to participate in the Family (Intentions) module and a significant fraction of them refused to reply these additional questions. Together with a small number of respondents who did not state their actual number of live-born children, this non-response increased from 11.7 % in the 1986 survey to 21.4 % in the 2001 survey, declining slightly to 18.8 % in the 2006 survey. In addition, a small fraction of respondents did not state their fertility intentions, reducing further the proportion of ‘usable’ responses, especially in 2001, when only 74 % of all eligible respondents agreed to participate and provided valid answers. Non-response was not equally distributed across different categories of women and, in most surveys, reached highest levels for the youngest respondents aged 20-24 and for never-married women (see reports by Findl 1989, Maxwald 1994, Hanika 1999, and Kytir, Stefou and Wiedenhofer-Galik 2002). In this study I do not provide an adjustment for the missing data, although such an imputation was provided by Statistics Austria at least in the 1996 survey (Hanika 1999).

Table 1: Non-response rate and missing responses in the intention module of Austrian *Microcensus* surveys

Survey	Birth cohorts	Eligible respondents	Refused to participate + unknown parity	Unknown intention records	Valid records	Relative distribution, in %		
						Refused to participate + unknown parity	Unknown intention records	Valid records
1986	1946-66	9567	1124	128	8315	11.7	1.3	86.9
1991	1951-71	8298	1083	18	7197	13.1	0.2	86.7
1996	1956-76	8491	1670	196	6625	19.7	2.3	78.0
2001	1961-81	8038	1721	363	5954	21.4	4.5	74.1
2006	1966-86	3533	663	0	2870	18.8	0.0	81.2

Because the questions on intentions were asked in regular intervals of five years, *Microcensus* data are well-suited for an analysis of trends over time and they enable an investigation of the shifts in childbearing desires of 5-year cohort groups as they progressed through their reproductive life.

³ More information on the *Labour Force Survey* is provided at: http://circa.europa.eu/irc/dsis/employment/info/data/eu_lfs/F_LFS_PUBLICATIONS.htm

⁴ Questions on fertility intentions were also asked in the 1976 and 1981 rounds of the survey, but only married women were included. Consequently, these data are not comparable with the more recent surveys.

⁵ These ‘proxy responses,’ i.e., responses of ‘reference persons’ on behalf of other persons in the household are commonly included in the main module, for instance in the case of mothers replying on behalf of their young adult daughters still living in the parental home.

Excluding non-responding persons and those with missing records on desired or the actual number of children, the number of respondents was still sufficient for a detailed analysis of childbearing intentions by 5-year age groups: Except for the 2006 survey, each of these categories contained between 958 and 2063 respondents. The most recent (2006) survey, however, was based on a considerably smaller sample size, with 502 to 962 respondents in individual 5-year age categories.

3.2 *Microcensus* questions on fertility intentions and the level of education

This study focuses primarily on the questions on the number of live-born children of the respondent and her future fertility desires. The number of live-born children was recorded for all women aged 20-60 who agreed to participate in the special intentions module. 'Proxy' responses made on behalf of the persons not present at the interview were included as well. The questions on future childbearing intentions were asked only to women aged 20-40 and excluded proxy responses. They were consistent across different waves of *Microcensus* and were asked in the following order (see Appendix for precise question wording).

- 1) Future childbearing desires, including current pregnancy (yes / no / does not know / no answer)
- 2) Number of children additionally desired in the future
- 3) Approximate range of the number of additionally desired children among respondents uncertain about their future desires (i.e., those providing 'do not know' answer)

In addition, the 2006 survey included a question on the time horizon for the realisation of the desire for the next child.

The analysis of intentions by the highest achieved level of education utilises the following education categories:⁶

- 1) Primary education or no completed education (*Pflichtschule*, 40.4% respondents in 1986 and 19.6% respondents in 2001)
- 2) Lower-secondary education: Apprenticeship, practical training (*Lehrabschluss* and *Berufsbildende mittlere Schule*, 44.3% and 52.5%)
- 3) Higher secondary education: Grammar school, profession-training higher school (*Allgemeine höhere Schule* and *berufsbildende h. S.*, 9.9% and 18.7%)
- 4) Tertiary education: University, Academy (lower-tertiary programs for teachers and social workers; *Universität, Berufs- und lehrerbildende Akademie*, 5.3% and 9.2%)

These broad education categories were retained through all the rounds of *Microcensus* surveys studied here and they usually give sufficient sample size to analyse fertility intentions by age and education.⁷ Relatively rigid education system in Austria with

⁶ Numbers in brackets give the relative distribution of respondents aged 26-30, who provided answers on their fertility intentions in the 1986 and 2001 surveys.

⁷ Within the category of women with tertiary education it would be useful to distinguish between university education and education provided by academies primarily training teachers and social workers. Fertility of women educated in academies is considerably higher and their childlessness is lower than among women with university education (Spielauer 2005, Prskawetz et al. 2008). However,

low participation in further education in mid-adult years means that for most respondents the level of education achieved in their early twenties will not further change during their life. University students, who often complete their studies in their late twenties or even early thirties, constitute an exception from this pattern.⁸ Thus, a comparative analysis of fertility intentions by the highest level of education is meaningful for all the four categories at ages above 25. Women reaching university education after age 25 are included in the “higher secondary education” category at later ages.

3.3 Methods and missing data

The analysis of intended family size and parity distribution is based on a combination of responses about the number of children ever born and about the additionally desired number of children. I use weights that were designed for the intention module and imputed by *Statistics Austria* to assure that the data are representative of Austrian population. I compute three estimates of the mean intended family size, which are based on different assumptions about the desires of uncertain respondents:

1) ‘Main variant’ estimate

This estimate includes range data for undecided respondents, taking the mid-point of each range category (e.g., one child if a respondent provided a range of 0-2 children). If no specific value or range has been provided, the respondents are assumed wanting no more children.

2) ‘Upper bound’ estimate (high variant)

Excludes all range data and omits replies of undecided respondents. An exclusion of the answers of undecided respondents is the most common strategy applied in the analyses of mean intended family size.

3) ‘Lower bound’ estimate (low variant)

All undecided respondents are assumed not wanting any more children, even when they have chosen a ‘range’ answer. This assumption treats all the uncertain respondents as not desiring to have any more children, but unwilling to express this desire in such a straightforward fashion.

The last variant may be considered rather extreme as it treats uncertain respondents as a uniform group. Uncertainty may be common especially at younger ages when many women are still unsure about the future course of their employment, partnership and other life course trajectories and they are not yet seriously contemplating about their family building plans. For some of them this may be a conscious endorsement of a flexible ‘open future’ strategy (Liefbroer 1999). I have intentionally adopted a strong assumption in the lower-bound estimate to test the sensitivity of the mean intended family size to different assumptions about undecided respondents.⁹ Clearly, finer specifications can be adopted as well: For instance, the low and the high value of the

sample size of the *Microcensus* does not allow such a distinction for different age (cohort) groups of women.

⁸ According to OECD (2005) statistics, 18.3 % of Austrians were enrolled in education at age 25, of whom only 2.3 % were enrolled in lower than tertiary education. Enrolment in education dropped to 6.7% at age 29.

⁹ See Smallwood and Jefferies 2003 for an application and discussion of similar assumptions about uncertain respondents for England and Wales.

range distributions of the undecided respondents can provide further sub-variants to the main variant computation.

Two sets of *Microcensus* data, in 1986 and 1991 do not contain records about the range replies of uncertain respondents. The 1986 dataset lacks records on the lower value of the range, whereas the 1991 dataset lacks both the lower and the upper value of the range. For 1986, I defined the lower preferred range value at zero, although most plausibly many respondents expressed different low value of the range. The analysis showed, however, that the resulting error should be minor. More problematic was the analysis of the 1991 data. In the absence of any additional information on uncertain respondents, I computed only the lower-bound and the upper-bound estimates of the mean intended family size and then I estimated the ‘main variant’ as a simple average of these two values.

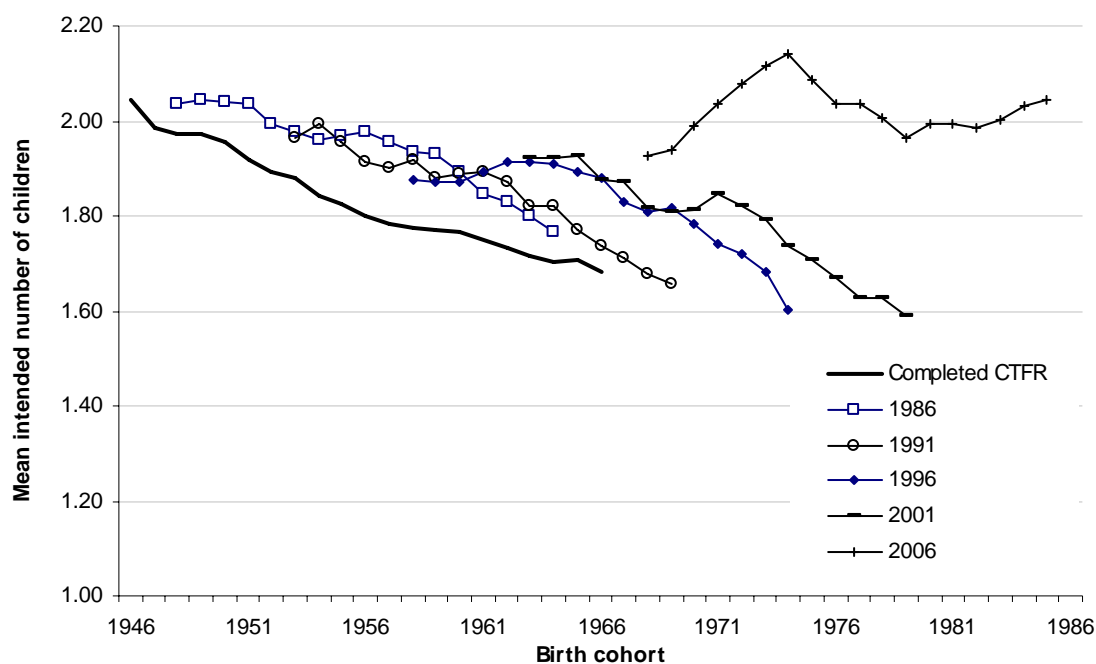
4 Changes in intended family size by age and birth cohort

I first look at the dynamics of the mean desired family size according to the main variant estimate. With an exception of the 2006 survey different rounds of *Microcensus* between 1986 and 2001 provide a consistent evidence of relatively low fertility intentions, which were declining slightly among young adult women (see Figure 1). Starting with the mid-1950s cohorts, all the subsequent cohorts of women consistently expressed below-replacement fertility intentions from their young adult years through their reproductive span. These data also provide a reasonably good approximation of the eventually realised completed fertility: Typically, the mean desired family size surpasses the ultimately achieved cohort fertility by slightly over 0.1. This difference is not largest among young adults, but around age 30, when many women have already entered motherhood and may become too ‘optimistic’ about their future childbearing plans.

The 2006 survey gives a conspicuously high level of fertility intentions for all the cohorts studied and is in conflict with the findings from the previous surveys. Neglecting an unlikely possibility of an abrupt rupture in fertility intentions, for which there is no plausible explanation at hand, I decided to exclude these data from further investigation.¹⁰

¹⁰ More work on the unexpected results of the 2006 survey needs to be done in the future. At present, three possible causes of its incompatibility with the previous surveys can be identified. First, in contrast with the previous surveys, the bloc of questions on fertility intentions in 2006 started with an opening statement suggesting that there are too few children born in Austria: “The question on childbearing desires leads, among other things, to a better ability to estimate, whether the trend towards too low number of children will continue, or, whether, in the coming years, we can expect increasing numbers of births.” This statement might had encouraged respondents to express higher fertility desires. Second, the 2006 survey was conducted by phone, whereas the previous surveys were conducted by face-to-face interviews. It is unclear, however, how could a shift to phone interviews influence responses on fertility desires. Third, markedly fewer respondents expressed uncertainty about their intentions in 2006 (6.3%) and, among those who did so very few indicated a range starting with zero. It appears that unlike in the previous surveys the interviewers in the 2006 survey did not offer respondents an explicit choice of expressing uncertainty.

Figure 1: Mean desired family size among Austrian women born in 1949-1983 in different waves of *Microcensus* surveys compared with the completed family size of cohorts born in 1946-1966 (main variant estimate)



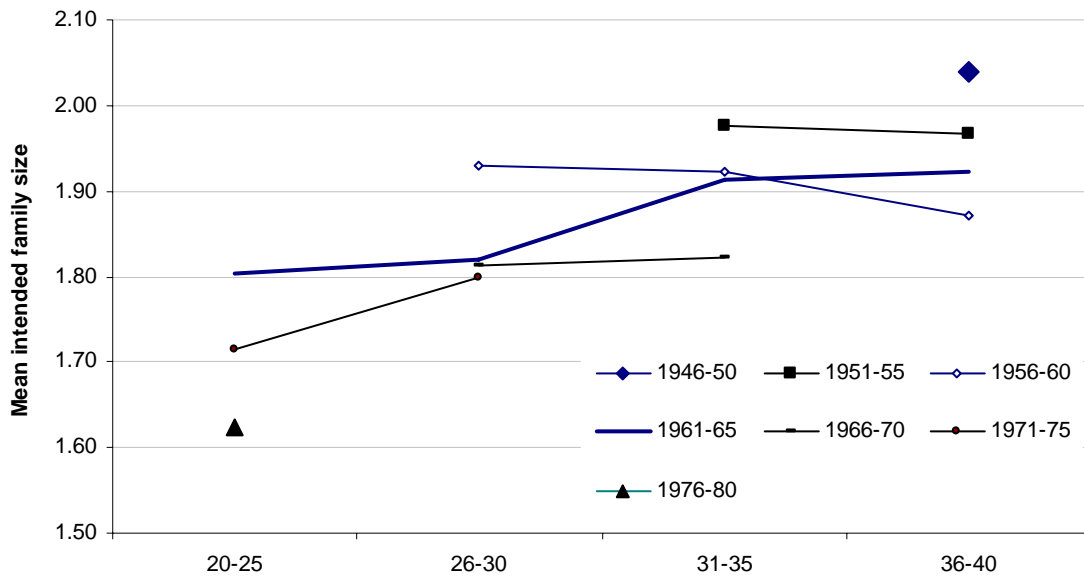
Source: Prskawetz et al. 2008 (completed cohort fertility), *Microcensus* surveys of 1986-2006.

Note: Data on the mean intended family size were smoothed to remove random fluctuations (5-year moving averages are used)

Excluding the 2006 survey, Figure 2 depicts cohort trends in the mean desired family size by age. The figure confirms that intended family size gradually declined across cohorts—this gradient was generally retained at different stages of reproductive life—and that women expressed low fertility intentions since their young adult years. At age 20-25, women born in the first half of the 1960s desired to have 1.8 children on average, whereas those born in the second half of the 1970s desired only 1.6 children on average (see also Section 6 below). Surprisingly, the mean intended family size increased slightly among women through their late twenties or the early thirties and then it remained almost flat until they reached their late thirties. This increase, which is in contrast with a rather standard finding of continuous downward revisions of fertility intentions over the reproductive life (Berrington 2004, Quesnel-Vallée and Morgan 2004, Liefbroer 2008), may be partly driven by immigrant women, who came to Austria between different *Microcensus* waves and who have, on average, higher fertility rates than the ‘native’ Austrian women. However, it appears to be more an outcome of the initially uncertain respondents gradually deciding about their fertility preferences.

Regrettably, in Austria there are no panel data at present that would allow us tracing the changes in reproductive desires of individual respondents. However, on an aggregate level, it appears that if there is any significant downward revision of reproductive intentions among Austrian women, it should take place only at the latest stage of their reproductive lives, in their late thirties and early forties. This hypothesis cannot be studied here as *Microcensus* does not survey fertility intentions of women above age 40.

Figure 2: Mean desired family size by age for birth cohorts 1946-1985. Main variant estimate

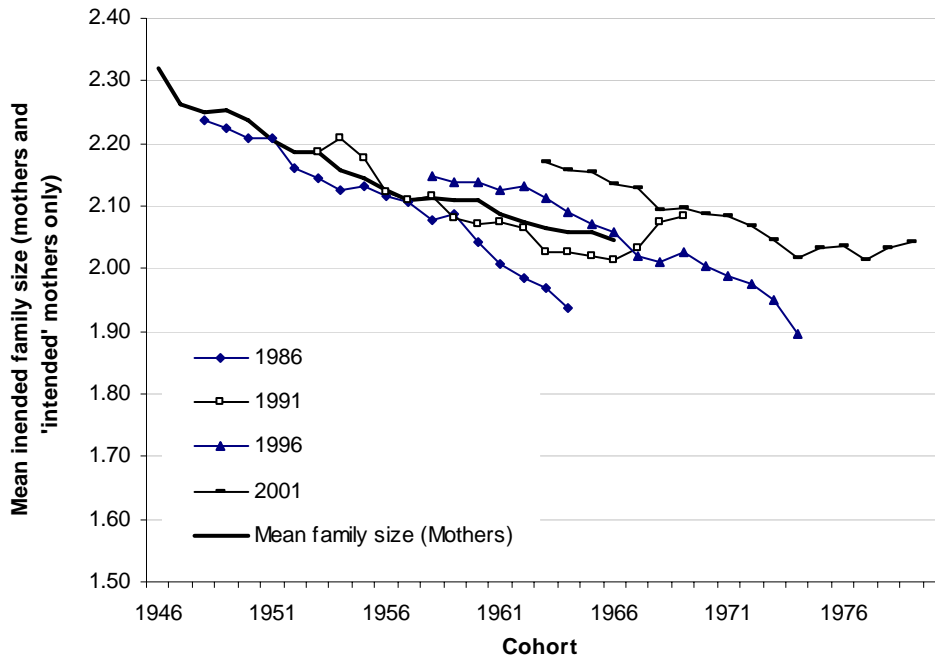


Source: *Microcensus* surveys of 1986-2006

It is possible that the trend to low intended family size in Austria has primarily been driven by a rise in the proportion of women intending to be childless or undecided about their childbearing plans. Therefore I also inspect trends in the mean intended family size among women who had become mothers at the time of the survey or who intended to become mothers in the future.¹¹ Two main conclusions stem from this analysis. First, although younger women who desire to become mothers generally express lower fertility intentions than their older counterparts, their mean intended family size still remains around two children. Second, intended family size of mothers (both actual and ‘intended mothers’) appears to be a better predictor of the ultimately achieved family size (of mothers) than the overall intended family size for all women. This is also illustrated in Figure 4, which gives an example of desired and ultimately realised mean family size separately for women who aspire to become mothers and for all women.

¹¹ This analysis also included responses of those undecided respondents, who provided a range of their future childbearing desires.

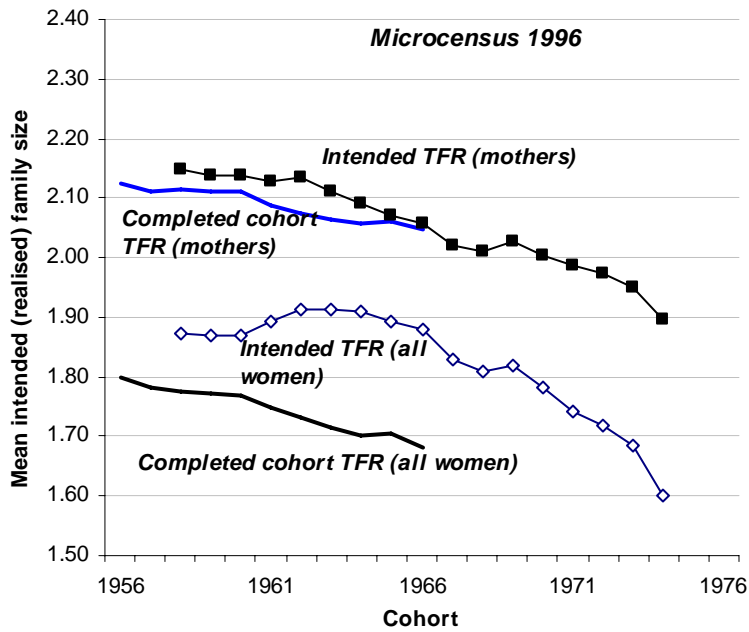
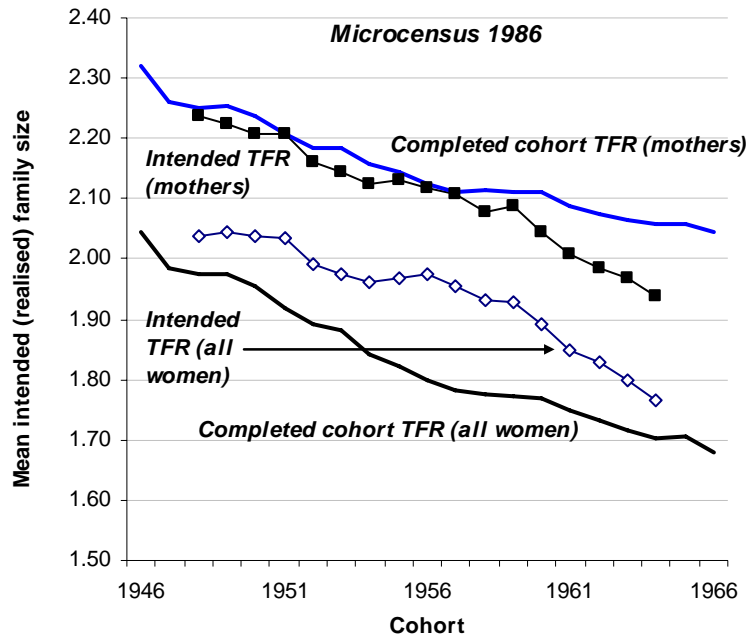
Figure 3: Mean desired family size among women who intend to become mothers; birth cohorts 1946-1985 (main variant estimate)



Note: Data on the mean intended family size are smoothed to remove random fluctuations (5-year moving averages are used)

Source: *Microcensus* surveys of 1986-2006. Mean family size of mothers was computed from the cohort fertility data estimated in Sobotka (2005b) and Prskawetz et al. (2008).

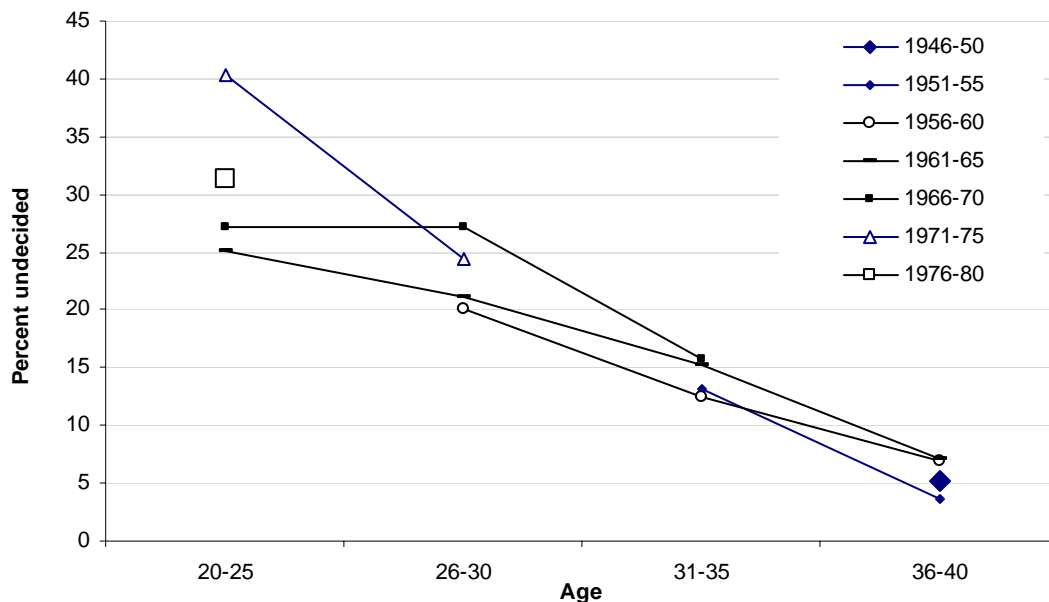
Figure 4: Mean desired family size of ‘intended mothers’ and for all women in 1986 and 1996 compared with the eventually achieved mean number of children (main variant estimate)



5 Uncertainty about childbearing intentions and its role for estimating intended family size

Uncertainty related to future childbearing desires is tightly linked to age and current parity. Figure 5, which plots the percentage of uncertain respondents for different cohorts across their reproductive lives, gives a very clear picture of the age gradient. Cohorts surveyed in different waves of *Microcensus* show similar declining trajectories and levels of uncertainty as they age. The percentage of uncertain respondents is very high and most varied at young adulthood, when it ranged between 25% and 40% at ages 20-25. Such high levels of intention uncertainty are consistent with the idea that uncertainty is most common when many people still have not seriously contemplated their future family-related plans. Elevated uncertainty among young respondents has been reported for other countries as well (e.g., Smallwood and Jefferies 2003 for England and Wales, Miettinen and Paajanen 2005 for Finland). By reaching their early thirties, the percentage of uncertain women drops to around 15%, and by their late thirties, it falls to around 5%. Not surprisingly, intention uncertainty at later childbearing ages is most common among childless respondents: around one fifth of childless respondents remain uncertain about their childbearing intentions at age 34 (see Berrington 2004 for similar findings for England and Wales). This is the group of ‘perpetual postponers’—childless women who have made a series of postponing decisions or women who have never been able to make a clear decision about childbearing—and many of whom are likely to remain permanently childless (Rindfuss, Morgan, and Swicegood 1988).

Figure 5: Percent respondents uncertain about their future childbearing desires by age and birth cohort



Note: Respondents are considered ‘uncertain’ or ‘undecided’ about their childbearing desires when they opted for ‘do not know’ response to the question on their childbearing desires.

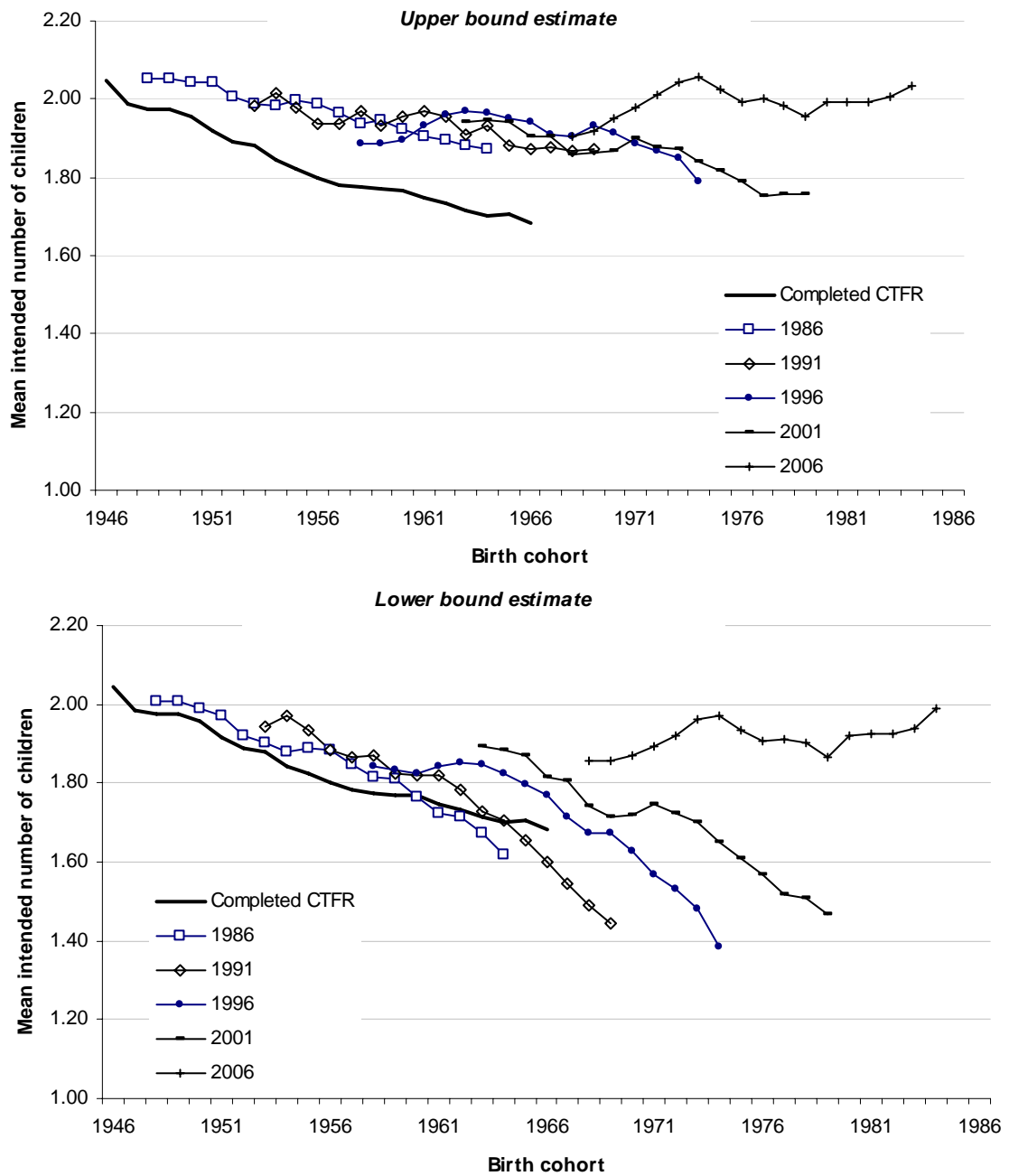
Source: *Microcensus* surveys of 1986-2006.

How does uncertainty impact the estimates of intended family size? When the responses of undecided women are simply ignored—as it is often done in other studies—and only at the intended family size of women providing specific, non-range,

intentions is analysed, the following picture emerges: There is a less pronounced decline in the mean intended family size among younger cohorts than in the main variant estimate presented in Figure 1 and different waves of *Microcensus* give similar results for individual cohorts (Figure 6). Consequently, the gap between the intended and the eventually realised fertility increases somewhat for women from younger cohorts and at younger ages. In addition, the problematic results from the 2006 survey do not stand out as much as in the main variant estimate. Overall, the main message on the shift to sub-replacement fertility intentions among women born in the mid-1950s and later is also supported by the upper-bound estimates, although the decline in intended family size is less pronounced.

The graph with lower-bound estimate of the mean intended family size (lower panel in Figure 6) indicates that different assumptions about uncertainty affect most the estimates of intended family size among younger women (see also the next section). Clearly, intention uncertainty warrants distinct interpretation at different stages of reproductive life course. The assumption that uncertain respondents in fact do not intend to have any (more) children is unrealistic at younger ages and produces a marked fall in the mean intended family size among young adults to very low levels. Many young people are embracing a ‘flexibility strategy’ (Liefbroer 1999), especially if they do not have a steady partner, but that does not imply that most of those who express uncertainty do not desire to have children. For women in their mid-thirties and late-thirties, however, this conceptualisation of uncertainty may be better substantiated: Many ‘older’ uncertain respondents probably do not have a strong childbearing motivation and are unlikely not to have a(nother) child later in life. A similar interpretation has been pursued in a number of studies suggesting that many women at later ages of childbearing may have a tendency “to keep the option of an additional child until there is a definitive decision to terminate it” (Westoff and Ryder 1977: 449; see also Morgan 1981 and 1982, Smallwood and Jefferies 2003). For these women the lower bound estimate comes, on average, relatively close to their ultimate family size.

Figure 6: Mean desired family size among Austrian women born in 1949-1983 (upper bound and lower-bound estimates)



Source: Prskawetz et al. 2008 (completed cohort fertility), *Microcensus* surveys of 1986-2006.

Notes: See Section 3.3 for the definition of lower-bound and upper-bound estimates.

Data on the mean intended family size are smoothed to remove random fluctuations (5-year moving averages are used)

6 Intended family size and parity distribution among young adults

Although childbearing intentions are most uncertain and unsettled at younger ages, a special focus on young adults offers a number of important insights about the formation of childbearing desires and childlessness preferences early in adult life, but also on the possible future trends in fertility and on the validity of different hypotheses on changes in fertility intentions over time. A continuous decline in intended family size would, for instance, lend support to the hypothesis on the influence of progressively smaller families leading to progressively diminishing childbearing ideals and desires among younger cohorts socialised in these families. Furthermore, if—as it is occasionally suggested—intended family size constitutes a theoretical ceiling of the eventually realised fertility of particular cohorts, any further decline in fertility intentions of young adults would signal a decline in the hypothetical upper bound of their future completed fertility.

Already in 1986 young adult women in Austria expressed sub-replacement fertility intentions that ranged between 1.68 (lower bound estimate) and 1.89 (upper bound). This value subsequently declined further and the range of the mean intended family size among young women reached 1.51 to 1.76 in 2001 (see Table 2). As the lower-bound estimate rests on unrealistic assumptions (see above), it is safe to conclude that the mean intended family size among younger Austrian women has declined to 1.6-1.8 by the beginning of the 21st Century. This trend was marked by a substantial rise in uncertainty about their childbearing desires, which was expressed by 40% of young women in 1996 and 31% of young women in 2001 (Table 3). Among those who intended to become mothers the mean intended family size remained very stable over time and hovered around two children per mother (Table 2).

Table 2: Trends in the desired family size among Austrian women aged 20-25, 1986-2001

Year	Cohort	Mean desired TFR per woman			Women who desire to become mothers MEDIUM
		LOW	MEDIUM	HIGH	
1986	1961-65	1.68	1.80	1.89	1.97
1991	1966-70	1.50	1.68	1.87	2.06
1996	1971-75	1.52	1.72	1.88	1.98
2001	1976-80	1.51	1.62	1.76	2.03

Source: *Microcensus* surveys of 1986-2001.

Table 2 features two estimates of the intended parity distribution among young adult women, one including the fraction of uncertain responses, and the other showing a distribution of intended parity only for the respondents providing specific intentions. It appears that shifts in uncertainty are affecting most strongly desires for childlessness and for a two-child family, which fluctuate most markedly. A two-child family norm has been retained over time: 39% of all young respondents and 56% of the ‘decided’ young respondents desired to have two children in the 2001 survey (Table 3). Excluding uncertainty, there is no clear change in the preference for a family with one or two children, whereas a slight decline in the preference for larger families can be detected. Overall, the preference for a family with three or more children among young adults is remarkably small (one tenth of all respondents and 15% of the ‘decided’ respondents) and it is well below larger-family preferences

reported by young women in England and Wales (Smallwood and Jefferies 2003) and the Netherlands (de Graaf and van Duin 2007).¹² A preference for childlessness increased markedly in the 2001 survey (11 % of all and 16% of the ‘decided’ women aged 20-25), but it is yet unclear whether this signals a shift towards more widespread voluntary childlessness or whether this is just a short-term fluctuation in the data.

Table 3a: Desired family size distribution among Austrian women aged 20-25, 1986-2001.

Year	Percentage intending specific parity				Uncertain + giving range
	Childless	1	2	3+	
1986	5.0	11.9	45.1	12.8	25.1
1991	9.4	9.3	43.9	13.9	23.6
1996	5.9	9.1	35.9	8.9	40.2
2001	11.0	9.1	38.7	10.0	31.3

Table 3b: Desired family size distribution among Austrian women aged 20-25, excluding the answers of undecided respondent. 1986-2001.

Year	Percentage intending specific parity			
	Childless	1	2	3+
1986	6.7	15.9	60.3	17.1
1991	12.3	12.2	57.4	18.2
1996	9.9	15.2	60.0	14.9
2001	16.0	13.2	56.3	14.5

Source: *Microcensus* surveys of 1986-2001.

7 Changes in intended parity distribution across reproductive life

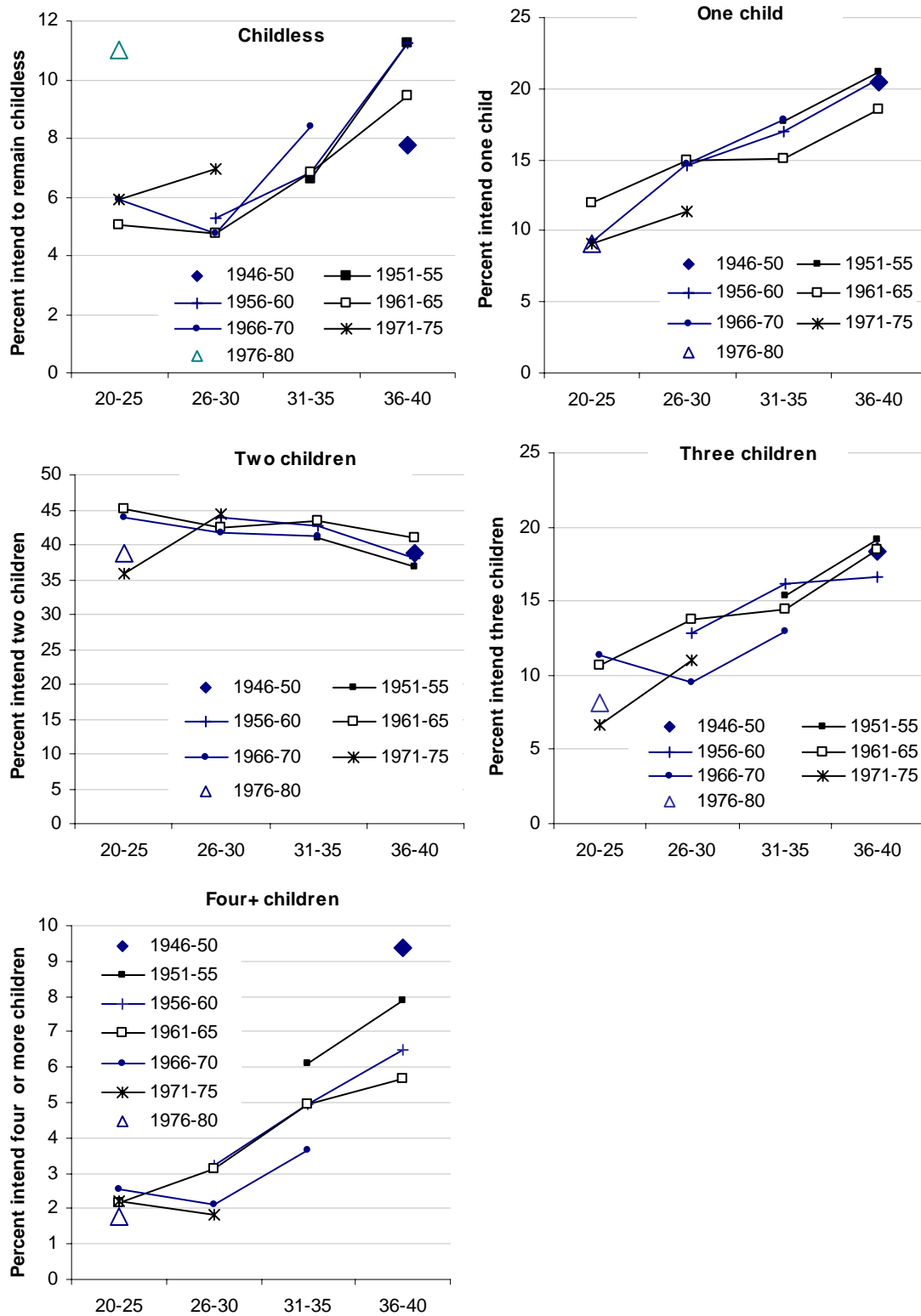
Do aggregate parity-specific intentions evolve in a consistent fashion over reproductive life course? As the percentage of women uncertain about their childbearing intentions declines with age (Figure 5 above), it can be expected that most parity-specific preferences gain on importance. Figure 7 largely confirms this hypothesis, albeit with a notable exception of a two-child preference, which dominates so strongly in young adult years. All other parity preferences become more frequent with age, as most of the uncertain respondents eventually make up their mind about their childbearing plans and some of the ‘decided’ respondents change their reproductive goals. Interestingly, even large-family preferences gain on importance during this process, suggesting that some of the undecided respondents may express large family-size preferences and some of the ‘decided’ ones may increase their fertility desires at a later stage. Some of this age-related increase in larger-family size preference may be attributed to the higher fertility of recent immigrants and to the effects of unwanted fertility, which remains significant even in contemporary advanced societies (Bongaarts 2001, Régnier-Loilier and Leridon 2007).

¹² A preference for larger-family size is similarly uncommon in the Czech Republic, where according to the 2005 *Generations and Sender Survey* only 14 % of women aged 18-24 intended to have three or more children (Sobotka et al. 2008, Table 7).

Despite its declining importance with age, a two-child preference remains dominant throughout the reproductive span, with around 40% women in their late thirties desiring to have two children. At that age, approximately one-tenth of women desire not to have a child, one-fifth intend to have one child only and 15-20% intend to have three children. Across cohorts, there has been a pronounced decline in the preference for 'very large' families (4+ children), which has become very rare. At younger ages, a gradual decline in the desire for a three-child family and an increase in childlessness preference can be noted as well.

The dominance of a two-child family orientation in young adulthood may be partly linked to the lower firmness of fertility intentions at that age. Some women who do not have a clear idea about their reproductive plans may express a two-child preference which widely corresponds to the general ideal family size. This would be the example of broader family-size ideals influencing stated preferences. The remarkable consistency of trends across cohorts and over reproductive years lends some credibility to the predictive value of fertility intentions, which has been broadly contested in the literature. The relative stability of trends in family size preferences as well as of the actual fertility trends in Austria indicates that the intentions of younger cohorts may give us relatively good idea about the likely range of their future family size and parity distribution.

Figure 7: Changes in desired number of children by age and birth cohort, in percent



Source: *Microcensus* surveys of 1986-2001.

8 Education differences in intended family size

Austria is, alongside Germany, characterised by large education differences in realised family size and high childlessness among university-educated women. A study on desired family size in Germany by Heiland, Prskawetz and Sanderson (2005) does not indicate a negative association of education and family size preferences and proposes that highly educated women constitute a “key demographic group that on average desires two or more children while realising much lower fertility” (p. 22). Similarly, a comparison European countries participating in the Fertility and Family Survey did not find a systematic effect of education on fertility preferences (van Peer 2002b).¹³ Fahey (2007), working with 2001 *Eurobarometer* data reported that education has a weak effect on ideal family size in Europe. These findings suggest that in countries where education is negatively associated with completed fertility, this effect usually operates via lower ability of highly educated women to achieve their intended family size rather than via their lower family size preferences (Fahey 2007). Fertility postponement plays an important role in this mechanism, as highly educated women frequently delay children until their late thirties and thus have a relatively short time to achieve their plans (e.g., Berrington 2004).

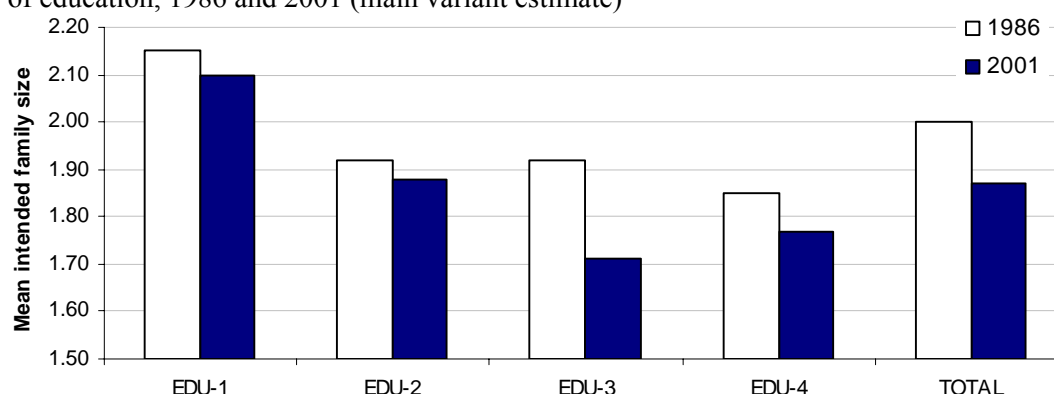
Austrian *Microcensus* data reveal that among women aged 26-30¹⁴ there was some indication of a downward effect of education on family size desires in 1986, but this effect merely singles out women with basic education, who had higher family size preferences (Figure 8). Thus, the idea that highly educated women were forerunners in expressing low fertility desires is neither rejected nor supported by the *Microcensus* data.¹⁵ The education gradient became steeper in 2001, when ‘younger’ women with primary education had, on average, replacement-level preferences (2.1), whereas women with higher secondary and tertiary education desired 1.7 to 1.8 children (main variant estimate, Figure 8). Interestingly, this education gradient narrows down at later ages when fewer respondents remain uncertain about their intentions (not shown here). Parity-specific distribution of desired family size in Table 4 identifies two major components responsible for the observed education gradient: with increasing education, the preference for larger family size (three and more children) declines steeply and, at the same time, the percentage of uncertain respondents increases. There are no education differences in a two-child family preference and in the preference for a small family size (no child or one child). Only if the undecided respondents are disregarded, does a higher preference for childlessness emerge among higher-educated women (not shown here).

¹³ After controlling for selected factors (age, employment, partnership status, and the indicators of the value of children), van Peer and Rabušić (forthcoming) found that higher educated men and women were less likely to prefer small family size (0 or 1 child) than their lower-educated counterparts.

¹⁴ Instead of focusing on young adults aged 20-25 as in Section 6, I look at the preferences of somewhat older women to ascertain that different education categories refer in a vast majority of cases to the completed education which will not change later in life.

¹⁵ Earlier surveys of fertility desires in Austria, conducted among married women only, did not detect differences in fertility desires for women with higher than primary education. In 1978 married Austrian women of reproductive age with higher than primary education desired between 2.06 and 2.11 children on average (Institut für Demographie 1980: 138, Table A.2.6). However, differences in the proportion of married for education groups as well as the lacking data for unmarried deem these results incomparable to my analysis.

Figure 8: Mean desired family size among Austrian aged 26-30 by the highest achieved level of education, 1986 and 2001 (main variant estimate)



Source: *Microcensus* surveys of 1986-2001.

Notes: Data were not weighted to represent Austrian population; the total desired family size is slightly higher than in the weighted data used in Figure 1.

Educational categories are listed in Section 3.2

Table 4: Desired family size distribution among Austrian women aged 26-30 by the highest achieved level of education, 2001 (main variant estimate)

Year	Percentage intending specific parity				Mean intended FS	N
	0-1	2	3+	Uncertain + giving range		
EDU-1	18	40	28	14	2.10	189
EDU-2	17	46	13	24	1.88	583
EDU-3	19	42	10	29	1.71	252
EDU-4	13	46	8	34	1.77	92
Total	17	44	14	24	1.87	1116

Source: *Microcensus* survey, 2001.

Notes: see Figure 8 above

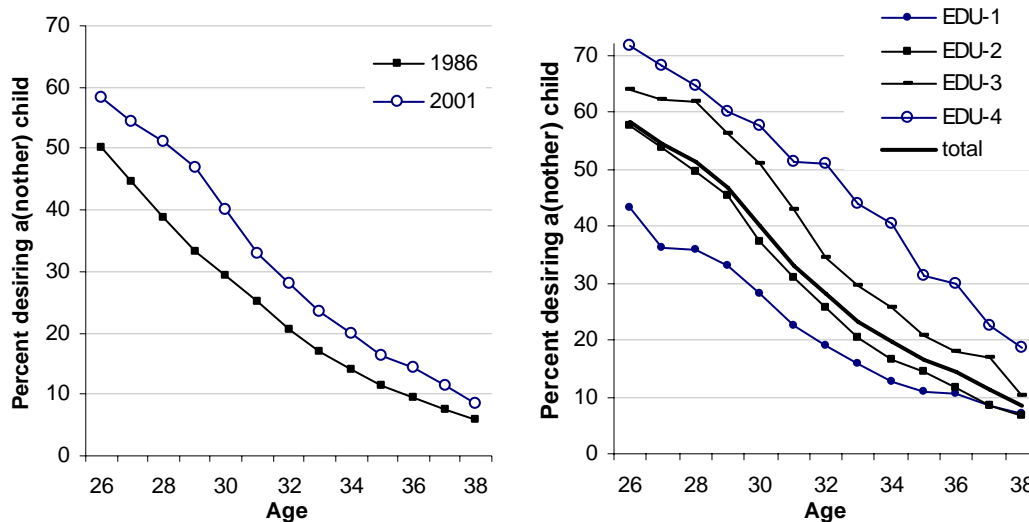
In line with the findings from other studies (e.g., van Peer 2002b, Berrington 2004), *Microcensus* data reveal that higher educated women frequently postpone their childbearing plans into their mid- and late-thirties. Moreover, there are also clear signs of the postponement of fertility plans in the overall population of women—partly due to their rising educational attainment—but also within education categories, especially among women with tertiary education (not shown here). Between 1986 and 2001, the percentage of women who expressed desire to have another child at ages 26-38 rose substantially (Figure 9a) and education gradient in the desire for a(nother) child widened among women past age 30. Figure 9b features these vast differences in the desire for a(nother) child by education in 2001. At age 32 about one half of university educated women expressed an intention to have a child in the future. In comparison, only one quarter of women with lower secondary education and one fifth of women with primary education desired to have another child at that age.

Arguably, as in the case of Germany, a substantial portion of low realised fertility among more educated women in Austria may be attributed to their postponement of family plans into late reproductive years and, subsequently, their frequent inability to realise these plans. Several studies have shown that more educated women both postpone their childbearing and revise their fertility intentions downward more

frequently than less educated women as they face greater opportunity costs of childbearing (see Quesnel-Vallée and Morgan 2004 for the United States, Miettinen and Paajanen 2005 for Finland, Liefbroer 2008 for the Netherlands). The data for Austria, where structural obstacles to family life are rather pronounced (Engelhardt 2004), fall in line with these findings. At age 36-40, a significant portion of childbearing plans among women with higher secondary and tertiary education still remains to be realised (Figure 10). At the same time, some educational gradient in achieved fertility would be retained even if highly educated women realised all their childbearing plans in their late thirties and early forties.

Figure 9a: Percentage of women who desire to have a(nother) child in the future by age, 1986 and 2001 (ages 26-38)

Figure 9b: Percentage of women who desire to have a(nother) child in the future by the highest achieved level of education, 2001 (ages 26-38)

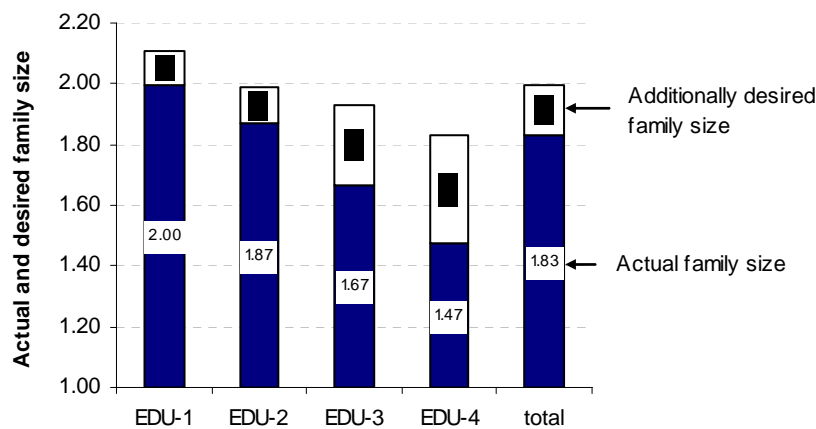


Source: *Microcensus* surveys, 1986 and 2001.

Notes: Educational categories are listed in Section 3.2

Data were smoothed to remove random fluctuations (5-year moving averages are used)

Figure 10: Mean realised and additionally desired family size among Austrian women aged 36-40 by their highest achieved level of education, 2001 (main variant estimate)



Source: *Microcensus* survey, 2001.

Notes: Data were not weighted to represent Austrian population; the total desired family size is slightly higher than in the weighted data used in Figure 1.

Educational categories are listed in Section 3.

9 Discussion: Is Austrian shift to sub-replacement family size preferences unique in Europe?

The mean desired family size in Austria has delved below the replacement level already for the cohorts born in the mid-1950s and below-replacement desires were consistently recorded in the *Microcensus* surveys since 1986 (with the exception of the most recent, 2006 survey, which is problematic). Austrian women express sub-replacement fertility intentions at young adult years, when also high levels of intention uncertainty prevail, and retain them throughout their reproductive span. Different assumptions about reproductive preferences of undecided respondents change the intended family size to a significant extent, especially among young adults, but do not alter these general conclusions. Highly educated women express slightly lower fertility desires at younger ages. In addition, many of them do not realise these desires when reaching their mid- to late-thirties and, arguably, also at the end of their reproductive span.

These findings generally corroborate previous findings on low intended and ideal family size in the *Eurobarometer* survey, reported by Goldstein, Lutz, and Testa (2004) and by Testa (2006 and 2007).¹⁶ Clearly, Austria is, possibly besides Germany, the country where sub-replacement fertility emerged earliest in Europe. In fact, low fertility intentions emerged among the generation of women born into relatively large families during the baby-boom era from the 1960s. This finding casts some doubts on the validity of the ‘shrinking family size’ argument about the influence of socialisation on the emerging low reproductive desires.

The evidence suggests, however, that besides Austria an increasing number of European societies have experienced falling desired family size among young adult women to sub-replacement levels. Around 2002, young women in the Czech Republic, Hungary, the Netherlands, and Spain expressed sub-replacement family size intentions of 1.80-1.85 (Table 5, data for Hungary refer to both men and women combined).¹⁷ For England and Wales, a similar low desired family size emerges only when uncertain women are assumed to have low reproductive desires¹⁸ and, outside Europe, women in the United States aged 18-24 reported expected family size of 1.88 in 1998 (Hagewen and Morgan 2005: 521, Table 2). Low reproductive desires among young women in some countries of Europe may signal a beginning of a new era, when the universality of a two-child family model and the normative pressure to have children may gradually erode. Obviously, the often reported pervasiveness of replacement-level fertility desires and preferences in Europe is no more universally valid. More research is needed to analyse trends in the overall family size preferences as well as parity-specific shifts in desired family size in other European countries.

¹⁶ Note, however, that the articles Goldstein, Lutz, and Testa (2004) and by Testa (2007) focus primarily on ideal, not intended family size. *Eurobarometer* data, which suffer small sample size, indicate even lower values of intended family size among Austrian women than the *Microcensus* data presented here.

¹⁷ Comparability of results for these countries may be affected by using different data sources, different surveys and also by the differences in the wording of questions on fertility intentions. Also the choice of uncertainty, when allowed, hinders this comparability. Nevertheless, these methodological issues do not affect general conclusion on the spread of sub-replacement family desires.

¹⁸ The data reported in Table 6 that uncertain respondents will have either no (additional) child or only one additional child (Smallwood and Jefferies 2003: 21, Table 5).

Table 5: Mean intended, expected or desired family size among young adult women in selected countries of Europe, around 1996 and 2002

Country	Age	Period: around 1995	Period: around 2002
Austria:			
Main variant	20-25	1.72 (1996)	1.62 (2001)
High variant (excluding uncertainty)	20-25	1.88 (1996)	1.76 (2001)
Czech Republic	18-24	1.92 (1997)	1.85 (2005)
England and Wales:	21-23	2.13 (1994-96)	2.14 (1998, 2000-01)
Main variant (excluding uncertainty)			
Alternative var. (including uncertainty) ^a	21-23	1.73 (1994)	1.85 (1998, 2000-01)
Hungary (both men and women)	20-24	n.a.	1.82 (2004-05)
The Netherlands	23-27	1.77 (1998)	1.81 (2003)
Spain	20-24	2.20 (1995)	1.80 (1999)

Sources: Austria: own computations from the *Microcensus* data; Czech Republic: Sobotka et al. 2008; England and Wales: Smallwood and Jefferies 2003; Hungary: Spéder and Kapitány, 2008; The Netherlands: de Graaf and van Duin 2007; Spain: Delgado, Meil Landwerlin and Zamora López 2008

Notes: Question wording differed between the surveys listed; see the listed sources for precise questions wording.

^a Estimate in Option (a), Table 4 in Smallwood and Jefferies (2003: 21).

An explanation of the observed fall in fertility preferences below the replacement level need to be country-specific. In the case of the Netherlands, reproductive plans of young adults have declined close to the level of the actual period fertility (the period total fertility rate was 1.72 in 2006) and also to the level of completed fertility among the cohorts of women born in the mid-1960s, which is around 1.8 (Council of Europe 2006). At the same time, there are, so far, no signs of a further decline in period or cohort fertility. Thus, the Netherlands, but also England and Wales and the United States represent regions where women have increasingly expressed, on average, rather ‘realistic’ expectations about their ultimate family size. Similar conclusion can also be drawn for Austria, where women have, on average, increasingly expressed fertility preferences which they also eventually achieve. A small ‘gap’ signalling unrealistically high intentions still remains there, but it has been reduced to about 0.1 children per woman. This does not mean that individual respondents are consistent in their reproductive plans, but it suggests that the number of women not achieving their initial reproductive target has become similar to the number of women who increased their fertility intentions during their reproductive span.

Spain, Hungary and the Czech Republic, on the other hand, are countries where period fertility rates declined precipitously throughout the 1980s (Spain) and the 1990 (the Czech Republic and Hungary) and where trends in fertility intentions seem to follow fertility trends with a certain time lag. In these countries, desired family size still remains well above the actual period fertility rates as well as above the likely future completed cohort fertility and thus the familiar ‘gap’ between reproductive goals and fertility outcomes is retained. In Spain, similarly to Austria, women embracing low reproductive preferences were still socialised in larger families.

It is possible that European countries will become more diverse in family size preferences as they are becoming increasingly differentiated in their actual fertility levels (e.g., Frejka and Sobotka 2008). If such a development indeed comes true,

women and men outside the ‘higher-fertility belt of Europe’ (Nordic countries, France, United Kingdom, Ireland, and Benelux) will increasingly adopt low fertility desires, and many more will express intentions to remain childless (see Sobotka and Testa forthcoming) or to have only one child. At present, the two-child family norm still firmly dominates fertility desires and family size ideals across Europe. Further persistence of this norm becomes uncertain especially in the countries of Southern, Eastern, and Central Europe.

Acknowledgements

Many thanks to Richard Gisser for supplying valuable information on Austrian *Microcensus* surveys and to Karin Schrittwieser from Statistics Austria for answering questions on the 2006 *Microcensus* survey. The paper has benefited from comments and suggestions by Maria Rita Testa. The work was conducted within the project ‘Fertility Intentions and outcomes: The Role of Policies to Close the Gap’, funded by the European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities (contract no. VS/2006/0685).

References

- Berrington, A. (2004). “Perpetual postponers. Women’s, men’s and couple’s fertility intentions and subsequent fertility behaviour.” *Population Trends* 117(Autumn 2004): 9-19.
- Bongaarts, J. (2001). “Fertility and reproductive preferences in post-transitional societies”. In: R. A. Bulatao, J. B. Casterline (eds.) *Global fertility transition*. Supplement to *Population and Development Review* 27, New York, Population Council, pp. 260-281.
- Chesnais, J.-C. (2000). “Determinants of below replacement fertility.” *Population Bulletin of the United Nations* 1999(40/41): 126–136.
- Council of Europe. (2006). *Recent demographic developments in Europe 2005*. Strasbourg: Council of Europe Publishing.
- De Graaf, A. and C. van Duin. (2007). “Bevolkingsprognose 2006-2050: veronderstellingen over de geboorte.” *Bevolkingstrends* 2007(1): 45-56.
- Delgado, M., G. Meil Landwerlin and F. Zamora López. (2008). “Spain: Short on children and short on family policies.” Forthcoming in: Frejka, J. Hoem, T. Sobotka, and L. Toulemon (eds.) *Childbearing Trends and Policies in Europe*, special collection to be published in *Demographic Research*.
- Demeny, P. (2003). “Population policy dilemmas in Europe at the dawn of the twenty-first century.” *Population and Development Review* 29(1): 1-28.
- Engelhardt, H. (2004). “Fertility intentions and preferences: Effects of structural and financial incentives and constraints in Austria.” *VID Working Papers* 02/2004.
- European Commission. (2005). Green Paper “Confronting demographic change: a new solidarity between the generations.” Brussels, Commission of the European Communities. [http://ec.europa.eu/employment_social/news/2005/mar/comm2005-94_en.pdf].
- Fahey, T. (2007). “Fertility patterns and aspirations among women in Europe.” In J. Alber, T. Fahey and C. Saraceno (eds.) *Handbook of quality of life in the enlarged European Union*. London: Routledge, pp. 27-46.
- Findl, P. (1989). “Kinderwunsch nach demographischen Merkmalen. Ergebnisse des Mikrozensus Juni 1986“ *Statistische Nachrichten* 1989(10): 704-709.
- FFS. (1997). *Austria. Fertility and Family Survey. Standard Country Tables*. Population Activities Unit, UN/ ECE, Geneva.
- Frejka, T. and T. Sobotka. (2008). “Contemporary fertility levels and trends in Europe.” Forthcoming in: Frejka, T. Sobotka, J. Hoem, and L. Toulemon (eds.) *Childbearing*

Trends and Policies in Europe, special collection to be published in *Demographic Research*.

- Goldstein, J., W. Lutz, and M.R. Testa. (2003). "The emergence of sub-replacement family size ideals in Europe." *Population Research and Policy Review* 22: 479-496.
- Hagewen, K.J. and S.P. Morgan. (2005). "Intended and ideal family size in the United States, 1970-1998." *Population and Development Review* 31(3): 507-527.
- Hanika, A. (1999). "Realisierte Kinderzahl und zusätzlicher Kinderwunsch. Ergebnisse des Mikrozensus Juni 1996." *Statistische Nachrichten* 1999(5): 311-318.
- Heiland, F., A. Prskawetz, and W.C. Sanderson. (2005). "Do the more-educated prefer smaller families?" Paper presented at the 2005 Annual Meeting of the Population Association of America, Philadelphia, Pennsylvania, March 31 - April 2, 2005.
- Institut für Demographie. (1980). *Kinderwünsche junger Österreicherinnen*. [Child desires of young Austrian women]. Schriftenreihe, Heft 6, Institut für Demographie, Vienna, Austria.
- Klapper, K. (2003). "Realisierte und insgesamt gewünschte Kinderzahl." *Statistische Nachrichten* 2003(11): 824-832.
- Kytir, J., P. Stefou and B. Wiedenhofer-Galik. (2002). "Familiale Strukturen und Familienbildungsprognose. Mikrozensus 2001." *Statistische Nachrichten* 2002(11): 824-840.
- Liefbroer, A.C. (1999). "From youth to adulthood: Understanding changing patterns of family formation from a life course perspective". In: L. van Wissen and P. Dykstra (eds.) *Population issues. An interdisciplinary focus*. Kluwer Academic / Plenum Publishers, New York, pp. 53-86.
- Liefbroer, A. (2008). "Changes in family size intentions across young adulthood: A life-course perspective." (Submitted to *European Journal of Population*, special issue on Fertility intentions).
- Lutz, W., V. Skirbekk, and M. R. Testa. (2006). "The low fertility trap hypothesis. Forces that may lead to further postponement and fewer births in Europe." *Vienna Yearbook of Population Research* 2006: 167-192.
- McDonald, P. (2006). "Low fertility and the state: The efficacy of policy." *Population and Development Review* 32(3): 485-510.
- OECD. (2003). *Babies and bosses. Reconciling work and family life*. Vol. 2: Austria, Ireland and Japan. Organisation for Economic Co-operation and Development, Paris.
- OECD. (2005). *Education at a glance 2005*. Organisation for Economic Co-operation and Development, Paris.
- Maxwald, R. (1994). "Realisierte Kinderzahl und zusätzlicher Kinderwunsch nach demographischen Merkmalen." *Statistische Nachrichten* 1994(7): 546-555.
- Miettinen, A. and P. Paaanen. (2005). "Yes, no, maybe: Fertility intentions and reasons behind them among childless Finnish men and women." *Yearbook of Population Research in Finland* 41 (2005): 165-184.
- Morgan, S.P. (1981). "Intention and uncertainty at later stages of childbearing: The United States 1965 and 1970." *Demography* 18(3): 267-285.
- Morgan, S.P. (1982). "Parity-specific intentions and uncertainty: The United States, 1970 to 1976." *Demography* 19(3): 315-334.
- Morgan, S.P. (2003). "Is low fertility a twenty-first century demographic crisis?" *Demography* 40(4): 589-603.
- Morgan, S.P. and K. Hagewen. (2005). "Is very low fertility inevitable in America? Insights and forecasts from an integrative model of fertility." Chapter 1 in: A. Boot and A. C. Crouter (eds.) *The new population problem. Why families in developed world are shrinking and what it means*. Lawrence Erlbaum Associates, Mahwah, New Jersey, pp. 3-28.
- Prskawetz, A., T. Sobotka, I. Buber, R. Gisser, and H. Engelhardt. (2008). "Austria: persistent low fertility since the mid-1980s." Forthcoming in: Frejka, J. Hoem, T. Sobotka, and L.

- Toulemon (eds.) *Childbearing Trends and Policies in Europe*, special collection to be published in *Demographic Research*.
- Quesnel-Vallée, A. and S.P. Morgan. (2004). "Missing the target? Correspondence of fertility intentions and behavior in the U.S." *Population Research and Policy Review* 22 (5-6): 497-525.
- Régnier-Loilier, A. and H. Leridon. (2007). "After forty years of contraceptive freedom, why so many unplanned pregnancies in France?" *Population & Societies* 439(September 2007): 1-4.
- Rindfuss, R.R., S.P. Morgan, and G. Swicegood. (1988). *First births in America. Changes in the timing of parenthood*. University of California Press, Berkeley, California.
- Smallwood, S. and J. Jefferies. (2003). "Family building intentions in England and Wales: trends, outcomes and interpretations." *Population Trends* 112(Summer 2003): 15-25.
- Sobotka, T. (2005a). "Childless societies? Trends and projections of childlessness in Europe and in the United States." Paper presented at the PAA Annual Meeting in Philadelphia, 1-3 April 2005.
- Sobotka, T. (2005b). "Fertility in Austria: An overview." *Vienna Yearbook of Population Research* 2005: 243-259.
- Sobotka, T. and M. R. Testa. (2008). "Attitudes and intentions towards childlessness in Europe". In: Ch. Höhn, D. Avramov, and I. Kotowska. (eds). *People, population change and policies: Lessons from the Population Policy Acceptance Study*.
- Sobotka, T., A. Štátná, K. Zeman, D. Hamplová, and V. Kantorová. (2008). "Czech Republic: A rapid transformation of fertility and family behaviour." Forthcoming in: T. Frejka, T. Sobotka, J. Hoem, and L. Toulemon (eds.) *Childbearing Trends and Policies in Europe*, special collection to be published in *Demographic Research*.
- Spéder, Z. and B. Kapitány. (2008). "Realization of birth intentions: A focus on gender-related labor market effects and child-related benefits." (Submitted to *European Journal of Population*, special issue on Fertility intentions).
- Spielauer, M. (2005). "Concentration of reproduction in Austria. General trends and differentials by education attainment and urban-rural setting." *Vienna Yearbook of Population Research* 2005: 171-195.
- Statistics Austria. (1996). *Volkszählung 1991. Haushalte und Familien*. Series 1.030/26, Österreichisches Statistisches Zentralamt, Vienna.
- Statistics Austria. (2005). *Volkszählung 2001. Haushalte und Familien*. Vienna: Statistics Austria.
- Testa, M.R. (2006). "Childbearing preferences and family issues in Europe." Special Eurobarometer 253/Wave 65.1 – TNS Opinion & Social, European Commission.
- Testa, M.R. (2007). "Childbearing preferences and family issues in Europe: Evidence from the Eurobarometer 2006 survey." *Vienna Yearbook of Population Research* 2007: 357-379.
- Van Peer, C. (2002a). "Desired and achieved fertility." In: E. Klijzing and M. Corijn (eds.) *Dynamics of fertility and partnerships in Europe: Insights and lessons for comparative research*. Vol. 2. United Nations, New York and Geneva, pp.117-142
- Van Peer, C. (2002b). "Kinderwens en realiteit: een analyse van FFs-gegevens met beschouwingen vanuit een macro-context." *Bevolking en Gezin* 31(1): 79-123.
- Van Peer, C. and L. Rabušić. (Forthcoming). "Will we see an upturn in European fertility in the future?" In: Ch. Höhn, D. Avramov, and I. Kotowska. (eds). *People, population change and policies: Lessons from the Population Policy Acceptance Study*.
- Voas, D. (2003). "Conflicting Preferences: A reason fertility tends to be too high or too low". *Population and Development Review* 29 (4): 627-646.
- Westoff, C.F. and N.B. Ryder. (1977). "The predictive validity of reproductive intentions." *Demography* 14(4): 431-453.

Appendix: Questions on fertility intentions in Austrian Microcensus surveys used in this study

German text

XK3 “Haben Sie den Wunsch, irgendwann in Ihrem weiteren Leben (noch) ein oder mehrere Kind(er) zu bekommen? Bitte rechnen Sie eine allfällige gegenwärtige Schwangerschaft mit!”:

[Responses: R01 “Ja”, R02 “Nein”, R03 “Weiß nicht“, (R04: no reply)]

XK4a “Wie viele Kinder wünschen Sie sich (noch)? “

[Responses: 1..15]

XK4b “Und wenn Sie gebeten werden, doch eine ungefähre Zahl anzugeben, wie viele Kinder wünschen Sie sich (noch)? Sie können auch eine Von-bis-Anzahl angeben.“

English translation:

XK3: “Do you desire to have (yet) a(nother) child at any point in your future life? Please include also current pregnancy”

Possible responses:

- Yes (→ XK4a)
- No (→ END)
- Does not know (→XK4b)
- No answer, refusal (only in 1986-2001 waves, →END)

XK4a: “How many more children do you desire?”

Possible responses:

- Number (1 to 15)
- Does not know (only in 1986-2001 waves, →XK4b)
- No answer, refusal (only in 1986-2001 waves, →END)

XK4b: “And when you would be asked to provide an approximate number, how many children do you desire (yet)? You can also choose a range from – to”

Possible responses:

- Number <from x to x>, excludes possibility of choosing no additional children
- Does not know
- No answer, refusal (only in 1986-2001)