

FERTILITY

BALÁZS KAPITÁNY – ZSOLT SPÉDER

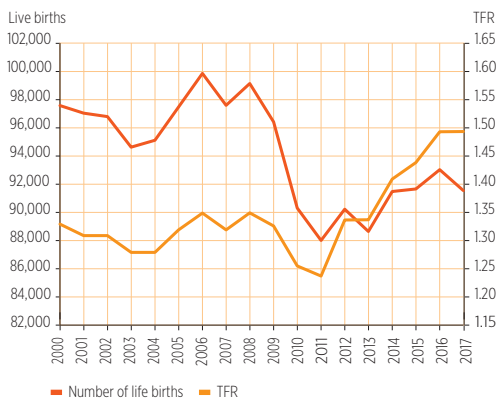
MAIN FINDINGS

- » In recent years, even though the fertility rate has been growing, the number of children born has remained stagnant in Hungary. This is because of a steep drop in the number of women of childbearing age.
- » The total fertility rate rose from 1.24 in 2011 to 1.49 in 2017. This is the highest the figure has been for two decades; on the other hand, it still falls well short of the value needed for the population to reproduce itself (over 2.0).
- » In a European comparison, Hungarian fertility is still below the European Union average. Given the similar increase in fertility observed in the other countries of the region, the Hungarian growth would seem to accord with the trend in terms of both level and progress, albeit delayed in terms of timing.
- » The shift of parenthood to a later age over the last decade and more has now practically come to a halt – but at a much later age than that considered ideal by the people affected.
- » The propensity for having children varies greatly across different categories of the population in terms of educational level and family size. Willingness to have children has grown significantly among relatively young people with primary education. Furthermore, the chances of two-child families becoming large families (with three or more children) have increased. At the same time, the proportion of childless and single-child women has also grown steadily. And so the proportion of families with two children has dropped significantly.
- » The previously increasing trend to have children out of wedlock seems to have peaked already, and by 2017, the proportion of children born to married parents had again grown to 55%. The majority of children born out of wedlock are born to cohabiting partners.
- » The subjective measures of fertility show a high level of stability. Both the ideal number of children and the planned number of children remained essentially stable in the decade and a half from 2001 to 2016. The ideal number of children in 2016 was put at 2.2 for both men and women, and the planned number of children was 2.0 for women and 1.9 for men.
- » The differences between the planned and the actual number of children have grown due to postponement; as a consequence, people in their late thirties are now planning to have fewer children than they originally intended.

CHANGES IN WILLINGNESS TO HAVE CHILDREN IN TIME AND SPACE

According to the definitive data for 2017, the number of children born in Hungary was 91,577; this means that the number of births has essentially been static since 2014. If we examine the trends from the turn of the millennium onwards, we find an overall decrease. From the start of the twenty-first century until 2009, somewhere between 95,000 and 100,000 children were born each year. There then followed a ‘slump’ (2010–2013). Although the number of births did increase for a few years, a return to the earlier figure of close to 100,000 does not seem to be on the cards (*Figure 1*).

Figure 1: Number of live births and total fertility rate (TFR) in Hungary, 2000-2017



Source: HCSO, Demographic Yearbooks.

Though we cannot speak of a significant positive turn with regard to the number of live births, the most widely used indicator – *the total fertility rate (TFR)*⁶ – does paint a more positive picture. The TFR rose significantly and steadily between 2011 and 2016. Following a low point in 2011 (1.24), it rose to 1.49 in 2016 and remained at 1.49 in 2017. This also means that over

the two years of 2016-2017, Hungary saw its highest fertility values for two decades. The scale of this positive trend should not be overestimated, however, as the value of the TFR needs to rise to above 2.0 for a population to reproduce itself. The growth of the last few years has reduced the shortfall between the lowest observed fertility and the standard required for natural reproduction by a third. (In Hungary, the total fertility rate last exceeded 2.0 between 1974 and 1979.)

But how is it possible for the most important indicator of fertility basically to go on rising, even as the number of births stagnates? It is clear that between 2000 and 2010, the number of births and the TFR converged; but that is not typical of the period that followed. This can be explained by the specific age structure of the Hungarian population. After 2012, the decline in those age groups (20–40) with the greatest propensity for women to have children accelerated. This meant that a decreasing number of potential mothers took on essentially the same number of children, and so the fertility per woman grew. This process has speeded up even further (and now the whole large cohort born between 1974 and 1978 has passed the age of 40, when both willingness to have children and fecundity become very low). Thus, the two indicators now diverge: total fertility shows impressive growth, even as the number of annual births stagnates. Looking ahead, in the coming decade – when the women born after the turn of the millennium mature into adults – the number of women able to give birth will continue to decrease, to the extent that we must reckon on a drop in the number of births – even given the possible increase in willingness to have children. If the growth in fertility grinds to a halt (or even goes into reverse), that may in future result in a dramatic fall in the number of births.

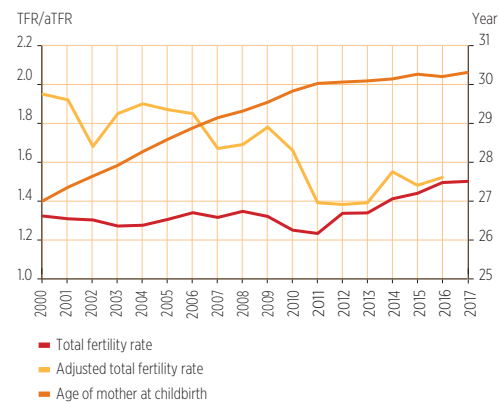
Though by now it has become a commonplace, we ought to stress that if the age at which women have children increases, the fertility rate must inevitably drop; however, this does not mean that willingness to have children also drops. (For postponement is not the same as giving up on the idea of becoming a parent.) The simplest and most widely accepted statistical method of eliminating this timing distortion is the so-called Bongaarts–Feeney *tempo-adjusted total fertility rate (aTFR)*. This adjusted TFR is able to show how high the fertility rate would be without the effect of timing (postponement). In other words, it tells us what the average number of children (TFR) would be, if there were no postponement. To be precise, it assumes that it is *exclusively* the postponement of childbearing that causes any change. Thus, if the aTFR does not drop, then the fall in the total fertility rate can be attributed exclusively to postponement. On the other hand, if a drop is also observed in the aTFR, then – in addition to the postponement affect – some ‘quantitative’ decrease (quantum effect) is also contributing to the lower level of fertility.

In the last, 2015 edition of the *Demographic Portrait*, we discussed in some detail (Kapitány and Spéder 2015) how to interpret the Hungarian trends of recent years through the lens of this adjusted indicator. We found the following: in the period (until 2006) when parenthood was characterized by substantial postponement, there was a kind of stability in the aTFR at a level of around 1.8. Thus, up until 2006, fertility could potentially have been as high as that, had there been no postponement. That is, it was not *willingness* to have children that had changed, but *timing*.

Thereafter, and especially after 2009, with the slowing tempo of postponement, the aTFR fell from 1.8 to around 1.4–1.5. This

suggests that the stagnation of the TFR at around 1.3 from 2006 on has increasingly been due to the decline in willingness to have children. Once the general universal postponement has ended, then the two indicators – the TFR and the aTFR – assume values similar to each other. And so, we conclude that the period compensating for the postponement has also ended. A more detailed analysis later shows, however, that this indicator is not sensitive in the event of contradictory sub-processes within different age groups.

Figure 2: The total fertility rate (TFR), adjusted total fertility rate (aTFR) and mean age of women bearing children in Hungary (children total), 2000–2017



Source: Author's calculation.

FERTILITY BEHAVIOUR IN INTERNATIONAL COMPARISON

It is worth examining the total fertility rate in an international comparison as well. Before presenting the current situation, two long-standing European trends are worthy of note. Though many assume the convergence of European fertility over the long term, there is increasing speculation that two different levels of fertility may ultimately be expected to prevail in Europe – one close to replacement fertility

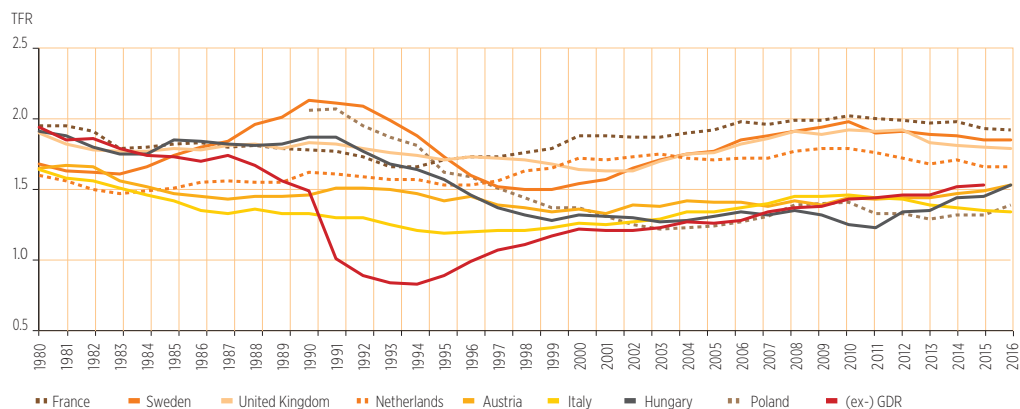
and one at a lower level (Rindfuss et al. 2016). This hypothesis accords with path dependence theory. On the one hand, we have the Scandinavian countries, France and the UK, with a level of reproduction that broadly corresponds to the level required for replacement fertility. On the other hand, we have the Southern European countries and the German-speaking countries, with a low level of fertility. Rather simplistically, this is mainly caused by widespread childlessness and/or the single-child model. The place of the former socialist countries in this scheme of things is not yet unequivocal. According to some approaches, a higher level of fertility is in the offing; others consider that a lower level is likely to become the norm in these states.

However, focusing on recent trends, it is worth drawing attention to the fact that – as is now clear – fertility has declined in the majority of developed countries in the wake of the 2009 global economic crisis. Thus, economic growth and recession have a profound impact on fertility.

For a comparative assessment of the current situation in Hungary, it is in fact only possible to look at 2016, since this is the last year for which comparative Eurostat data are available. Based on these data, the average total fertility rate for the European Union is 1.6, and there has been no significant change in this in recent years (2012: 1.59; 2015: 1.58).

If we examine fertility rate trends globally, then it is worth clarifying that at the turn of the century the level of fertility showed ‘lowest-low’ values of below 1.3 in seven current EU Member States; since then the number of countries with such a critical fertility situation has decreased, so that by 2016 no EU state was in that situation. Currently this phenomenon is only to be observed in South-East Asia. In parallel, in European countries that used to enjoy a high fertility rate of around or above 2.0 (France, Ireland, Sweden, the UK, plus the non-EU Iceland and Norway), the total fertility rate has palpably decreased, so that in 2016 not a single European state had a

Figure 3: The total fertility rate in selected European countries, 1980–2016



Source: Eurostat, Human Fertility Database; BIB, own illustration.

Note: Eurostat data for Hungary differ slightly from the HCSO data. See the reason for this in the box ‘Births in Hungary and Abroad’.

TFR of 2.0 (or above).

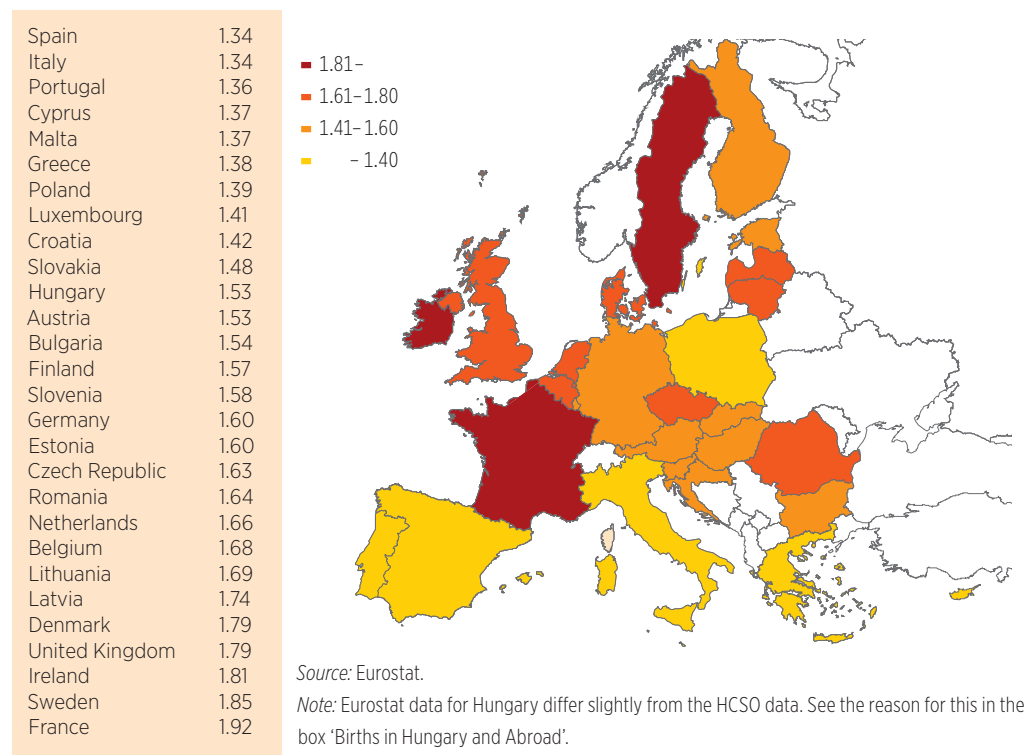
With the steady improvement in their fertility levels and the convergence towards EU average fertility, the former socialist countries no longer occupy the lowest positions in the European fertility rankings. Today, it is the Mediterranean countries where fertility is lowest.

While the TFR stands at 1.4 or lower in Greece, Spain, Italy, Cyprus and Portugal, of the former socialist countries only in Poland was it below 1.4 in 2016. In fact, a low (but nonetheless definite) rise in fertility over

the past decade can be observed not only among the formerly socialist EU Member States, but also in Russia, Ukraine and Belarus, for example.

As previously mentioned, the German-speaking European countries (Germany, Austria, Switzerland) also traditionally used to be characterized by low fertility rates. However, in recent years they have witnessed a distinct (albeit extremely modest) increase in fertility to 1.5-1.6. Though low, this still outpaces TFR in the Mediterranean region.

Map 1: Level of fertility of European Union Member States, according to total fertility rate, 2016



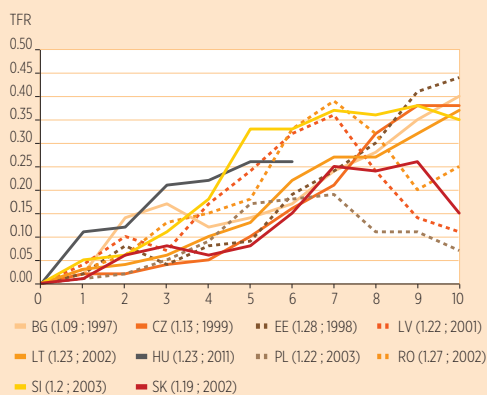
FERTILITY INCREASE: HUNGARIAN MIRACLE OR IN LINE WITH THE REGIONAL PATTERN?

With regard to the Hungarian growth in fertility in the period 2011–2016, the question arises: to what extent can this be regarded as a Hungarian success story, and is such growth unique to Hungary? Here it is worth comparing the Hungarian data with the data from the rest of the former state socialist EU Member States (with the exception of Croatia, where no full time series is available). In those countries, fertility plummeted after the change of regime, and ‘lowest low fertility’ (TFR below 1.3) was measured for several years at the turn of the millennium. After the fertility low point of 1997–2003, however, there was a rise in fertility figures in all the former socialist countries – apart from Hungary. The Hungarian level of fertility started to increase in 2010 – so with some delay.

Figure B1 presents this development in the 10 former socialist EU Member States considered by setting the starting point at the value 0 for the year in which each country dipped to its fertility low point. Thereafter, we can trace the change in TFR, compared to the starting situation for each country, in the 10 years following the low point. It must be emphasized that this growth is primarily the result of ‘recuperation’: i.e. postponed children were now born. The results show that the recuperation of fertility in Hungary, which appears delayed in a regional comparison, is nothing out of the ordinary, but is rather an average process. Data from countries

ahead of us in the process of recuperation also suggest that, on the one hand, the growth of fertility observed in the region has its limits; and on the other hand, growth was not a single unified trend – in a number of the countries it did not last. In the countries that count as the most successful in this field (Bulgaria, Czech Republic, Estonia, Lithuania, Slovenia), the total fertility rate grew typically by 0.4 over a decade. In this light, the Hungarian TFR can realistically be expected to rise to 1.6 or 1.7 by the beginning of the 2020s, assuming the positive trend continues; but it does not seem likely that a value of over 2.0 (which would ensure the reproduction of the population in the long run) will ever be reached. To achieve that, the country would have to cover unprecedented population development (for more on future scenarios, see the chapter entitled ‘The Structure and Future of Hungary’s Population’).

Figure B1: TFR in the former socialist EU Member States in the period after the low point, and compared to the low point



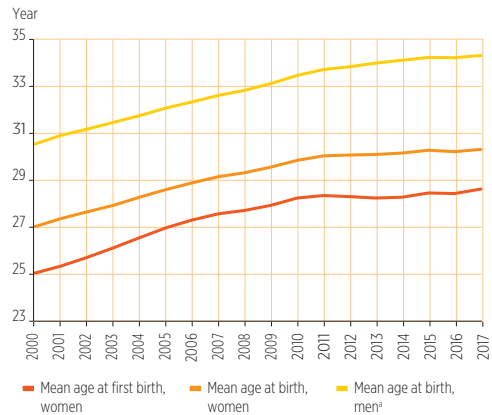
Source: Eurostat; authors' own calculations.

MOTHERS AGE AT TIME OF GIVING BIRTH – RECUPERATION ALONG WITH DIFFERENTIATION

The years following the turn of the millennium can be divided into two phases from the perspective of age at the birth of a first child. Until 2011, the mean age of mothers and fathers at the birth of their child grew continuously and steadily (Figure 4). This increase, which started back in the mid-1990s, contrasted with the early parenthood pattern that had prevailed under state socialism. Following the Western example, more and more women put off having their first child to the end of their twenties, or their early thirties. The mean age of mothers at first birth rose by five years between the regime change and 2011.

If we look at the rest of Europe, it must be borne in mind that Eurostat calculates these data a little differently, and so the values cannot be compared directly. However, the Hungarian figures describe a pattern whereby the mean age of mothers at childbirth is a year lower than the European average, but is in line with the former socialist countries. By contrast, the mean age of fathers at childbirth has kept on rising in Hungary in recent years, but the postponement of parenthood to a later age has also slowed down in their case. In 2017, a 'typical' father was 34.4 years of age at the time of the birth of his child, compared to a figure of 33.7 in 2011. The reason for the continuing postponement in the case of fathers is that the number of men in their forties has grown over the past few years. The fecundity of women in this age group (as opposed to the fertility of men) is limited, and so the rising number of people in this age group has an effect on the data for men, but not for women. The continued rise in the age of parenthood among men is almost entirely due to the growth in this age group.

Figure 4: Mean age of women and men in Hungary at the time of the birth of their children, 2000–2017



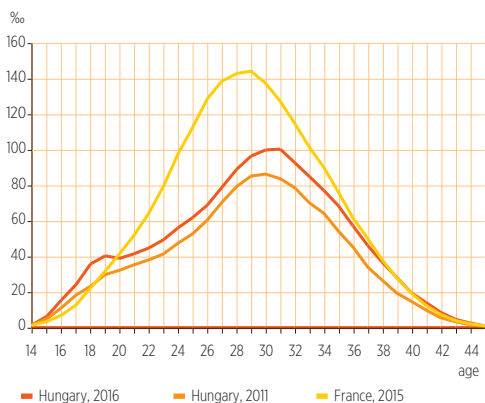
^a Of known fathers.

Source: HCSO, Demographic Yearbooks; authors' calculation.

A more accurate picture of the fertility behaviour and of timing can be gained if the changes in fertility behaviour are examined by age. The *age-specific fertility rate (ASFR)*⁶ (Figure 5) shows how many women of a given age (in every 1,000) gave birth to a child in Hungary in the calendar years 2011 (at the low point in the level of fertility) and 2016 (at the peak in the rise in fertility). Figure 5 shows clearly that the growth in propensity to have children is significant, but was disproportionately distributed among the age groups. A rather strong growth of over 25% occurred among 15–19-year-olds(!) and in age groups over 35. Examining the absolute measure, rather than proportional growth, we find the largest growth (of 14–16‰) among 31–33-year-olds. Overall, a growth of over 10‰ can be measured in the age groups 29–38 and 18–19. In contrast, among those who are traditionally characterized by the greatest willingness to have children (i.e. those in their later twenties) the growth in fertility was both proportionally and numerically lower. On the whole, the proportional changes cast light on three

sub-processes. First, the growth seen among 29–38-year-olds is due in large part to recuperation. Secondly, besides recuperation we see a slight shift of the peak of the 2016 curve to the right (ageing), signalling a continuation of postponement. The modal age for childbearing increased by one year from 2011 to 2016.

Figure 5: Age-specific fertility rates in Hungary (2011, 2016) and France (2015)



Source: HCSO; Eurostat.

Thirdly, the postponement among older age groups was offset by the fertility growth among teenagers. The most spectacular evidence of this is the emergence of a *bimodal fertility curve* in 2016. (In the case of first children, not shown here, the phenomenon is even more striking!) With the growing likelihood of teenagers having children, another peak – in addition to that observed at the age of 30–31 – appears at the age of 19. This rare demographic phenomenon (the bimodal fertility curve) is known in the literature (Burkimsher 2017, Pardo and Cabella 2018), and is found primarily in countries where social inequalities are great (USA, some countries of South America) and/or where – for whatever reason (e.g. ethnic, migratory) – the demographic regime is typified by the coexistence of an early and a

late childbearing model. If this phenomenon finds a stable footing in Hungary in the future, it definitely requires further investigation. The steadiness of the mean age of mothers at childbirth is, as a whole, the result of two opposing processes: in one section of the population, postponement remains strong; meanwhile in another section, a model of childbearing at a young age has emerged and has grown in strength.

For comparison, the age-specific rates typical of France in 2015 are also shown in Figure 5. Since France is one of the few EU Member States with relatively high fertility, its age-specific pattern of childbearing can serve as reference data, as it were, for potential fertility growth in Hungary. The French–Hungarian comparison, however, suggests that the increase in fertility witnessed in Hungary in recent years does not correspond substantively with the French pattern: the shape and the height of the curves are different. On the one hand, in Hungary the propensity to have children around and over the age of 40 has practically reached the French level. Since childbearing at this age is extremely limited for biological reasons, significant further fertility growth cannot be expected in these age groups – unless there is a medical breakthrough in the field. On the other hand, the statistical mode of childbirths comes earlier in France: children are born most often to women aged 28 or 29. Finally, the childbearing peak at a younger age is missing in France – as it is in most Western European countries, so far as we know. Comparison with France also generally draws attention to the fact that Hungary’s ‘shortfall’ in fertility is essentially a result of the lower propensity to have children among younger Hungarian women in their late twenties. If Hungarian fertility behaviour is to follow France’s, therefore, there needs to be some process that is the reverse of postponement – an ‘advancement’ of childbearing.

CHILDBEARING AND LEVEL OF EDUCATION

The growth in fertility between 2011 and 2016 can naturally be examined not only in terms of the age of mothers bearing children, but also in terms of other factors. Of these, perhaps the most interesting is the variation in propensity to have children among groups according to level of education.

Here, however, data limitations are apparent: although the educational level of mothers is known from birth statistics, the composition of all women of childbearing age in terms of educational level is not available for every year. Thus, for example, we know from the birth statistics that between 2015 and 2016, the number of women with only primary education who became mothers in their twenties grew by 457. We do not, however, have information on the change in the number of all women in their twenties with only primary education. It may well be that the number of such women grew markedly, following the reduction in the compulsory school leaving age from 18 to 16 – in which case the propensity to have children may not in fact have changed in this group. On the other hand, if the number in this group decreased, then willingness to have children grew even more than the actual number of births.

We are fortunate, however, as the data from the 2011 census and the 2016 microcensus provide information about the distribution of women of childbearing age by educational level. Though the data sources cannot be matched perfectly, it is nonetheless possible – by superimposing them – to estimate with acceptable accuracy the changes in childbearing propensity for each educational level.

The results – shown as age-specific fertility rates by educational level (*Figure 6*) – fundamentally change the picture gleaned from vital data on births. On the one hand, women with tertiary education had 4%

more children in 2016 than in 2011; on the other hand, the number of people in this group grew much faster than that (by over 10%). After filtering out the distortion of the age structure, it can be said that overall the propensity of women with tertiary education to have children is lower in 2016 than it was five years earlier.

By contrast, an increase in willingness to have children can be observed in the other three groups by educational level – the lower the educational level of the given group, the greater the increase observed in the age-specific fertility rates.

The headcount of mothers with a secondary school leaving certificate education decreased somewhat in the period under investigation; meanwhile the number of children they gave birth to grew by about 9%. In this stratum, fertility grew primarily among those women in their thirties.

The population of women with only vocational education (secondary school without graduation certificate) is decreasing rapidly in Hungary – hardly surprising, as the popularity of secondary schools that did not offer a school leaving certificate fell dramatically after the turn of the millennium, and moreover many people went on to complete their secondary education subsequently, after vocational school. In this five-year period, the number of vocationally trained women among all 15–44-year-olds dropped by over a fifth, while the number of children born decreased by far less. Therefore, overall the propensity to have children grew.

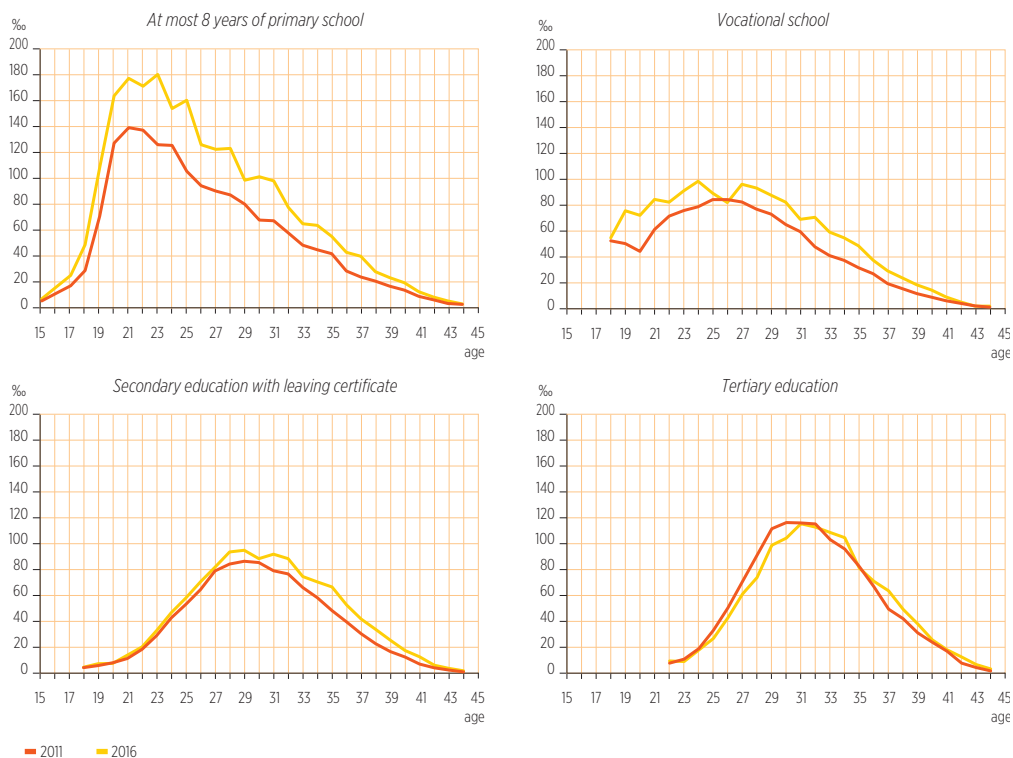
All in all, in the period 2011–2016, it was those with at most primary education whose fertility behaviour could be characterized as a kind of ‘baby-boom’. The numbers of this social stratum declined rather rapidly – by 23% in five years, from 473,000 to 363,000 in the 15–44 age group. Nevertheless, the number of children born to this undereducated group grew by about

10%. The growth in fertility in this stratum was not limited to any particular age groups, but was visibly more pronounced at a young adult age. A completely different age pattern for fertility emerges among the less well educated compared with the better-educated groups, and the divergence has been striking in recent years. The data suggest that among women, a majority of the group lacking even a vocational certificate become mothers by the age of 22; in the case of those with a secondary school leaving certificate this only occurs at the age of 29-30.

CHANGES IN THE NUMBER OF CHILDREN – NEW FAMILY STRUCTURE?

The change in the age-specific fertility rate indicates unequivocally that the variability of parenthood by age is growing. This may be a manifestation of individualism. Of course, it is not easy to examine this, as final data are only available once women complete their childbearing career. Completed fertility denotes the mean number of children when a female birth cohort turns 50. We do know, however,

Figure 6: Age-specific fertility rates, by education in Hungary, 2011 and 2016



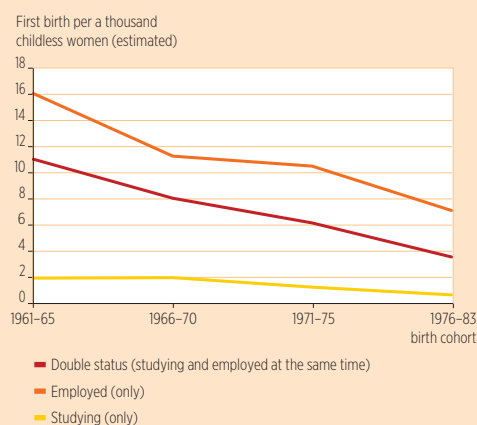
Source: HCSO Fertility database; Census 2011; Microcensus 2016; own calculations.

THE 'IRON LAW' OF BECOMING A PARENT: STUDY, EMPLOYMENT AND PARENTHOOD

It is confirmed by every empirical analysis examining the factors that affect becoming a mother that those who attend school or participate in training are the least likely to become parents. The reason for this is that those who attend school are usually not yet financially independent. Moreover, there is a strong 'sequential' norm that prevails in modern societies: first school, then university, then a job – and only after all that should someone consider parenthood. Also, it is well known that appropriate qualifications – and especially a tertiary degree – are often indispensable for employment; without them, earning prospects are poor. The incompatibility of simultaneously studying and being a parent is like an 'iron law' of parenthood. It is no coincidence, therefore, that after the change of regime, the expansion of schools became the main driver of postponement, with four times as many people enrolled in higher education around 2000 as before the change of regime. Only more recently has it been noted that a major proportion of educational expansion (close to half) came about through part-time, rather than full-time studies. Our study (Spéder and Bartus 2016) focused on the chances of young people becoming parents when they are studying and employed at the same time (in a double-status position). Given that there may be conflict between studying and becoming a parent at the same time, is there not even more intense

conflict among those who are studying and working and rearing children? The results suggest not: although the chances of becoming a mother in this group are lower than among those who are employed (only), it is still decidedly higher than among women who are enrolled as full-time students.

Figure B2: Chances of becoming a mother, according to different roles, by birth cohorts (the student status is endogenous), 1961–1983



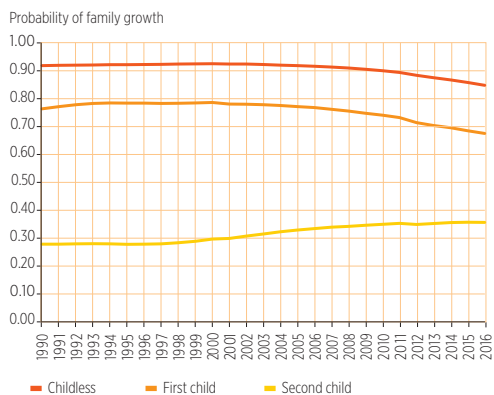
Source: Based on Spéder and Bartus (2016).

Having a job seems to mitigate the conflict between student and parental roles. The fact that those with 'double status' have a job denotes a sense of financial security for potential parents; and perhaps the fact that they have (already) completed some form of education reduces both the cost of giving up education and the opportunity cost of being less able to have a steep earnings development due to parenthood.

that having a child over the age of 40 is quite rare, and so examining the number of children (so far) produced by the age group 40–44 will give us a close approximation of completed fertility. The HCSO fertility database makes it possible to examine the almost-completed fertility of the age group 40–44 for any given time. One of the measures for this is the parity progression ratio. This shows what the likelihood was for someone of a given age to have at least one child (i.e. not to remain childless); what the likelihood was for a person with one child to have a second one; what the likelihood was for someone with two children to have a large family (with three children); and so on.

There was a marked change in the distribution of families according to number of children. Childlessness is clearly growing, as the proportion of those willing to have children dropped from the 92% observed in 2000 to 84% in 2016. That is, the proportion of childless women grew from 8% to 16%. The proportion of women with two children also decreased: the share of those who had a second child after the first shrank from 78% to 67%. That is, the proportion of those ‘stopping’ after one child is quite clearly growing. (This is a universal phenomenon in the region; see Zeman et al. 2018.) Finally, there is a marked growth in the likelihood of those with two children becoming a large (3+ children) family: from 25% at regime change, to 27% by the turn of the millennium, and then 35% by 2016; the proportion of those who have had a third child after their second has grown steadily. This is consistent with our research results, according to which the introduction of childrearing support (*gyet*) in 1993 increased the chances of a woman with only primary education having a third child, while family tax relief motivated tertiary-educated parents with two children to have a third. However,

Figure 7: Probability of family growth (parity progression ratios) in Hungary, 2000–2016



Source: HCSO Fertility database.

since the proportion of those with two children had decreased, the growing willingness of two-child parents to have another child hardly makes any mark on the number of births in society. On the whole, a pluralization by number of children has occurred: both the proportion of the childless and of those with a single child has grown; the popularity of the two-child family model has clearly decreased; and the popularity of the large family has remained stable.

BIRTH OUT OF WEDLOCK: HAVING A CHILD IN COHABITATION OR AS A SINGLE MOTHER

While the number of marriages has been constantly growing in Hungary since 2010, this increase has not appeared in the distribution of births by marital status: the proportion of children born to married couples has kept decreasing. At the turn of the millennium, 71% of children were born within wedlock, by 2010 the figure had dropped to 59.2%, and to 52.2% by

BIRTHS IN HUNGARY AND ABROAD

In recent years, certain questions have often arisen: Statistically, who should actually be taken into account when assessing the number of 'Hungarian' births? What is known of Hungarian children born outside Hungary? Where do the children of expatriates appear in the statistics? According to the tradition in Hungarian statistics, only children physically born in Hungary have been included in the statistics, irrespective of where the parents' normal residence is, whether they have Hungarian citizenship or a Hungarian address. Thus, for example, the statistics will include a child born in a hospital in Szeged (near the border with Serbia) to a Serbian mother who is otherwise not linked to Hungary in any way. At the same time, the number of Hungarian births published by HCSO will not include the roughly 200 children with Hungarian citizenship born in the hospital in Eisenstadt (Austria), to parents who are normally resident in Hungary but often commute to work in Austria. Since 2013, on the recommendation of Eurostat, the parallel publication of data based on the so-called 'place of usual residence' was initiated. Currently, the main fertility indicators concerning these data appear also in the Hungarian Central Statistical Office (HCSO) Demographic Yearbooks, under 'live births to mothers with Hungarian residence'. These numbers do not take account of live births in Hungary to mothers with foreign residence, but do take account of foreign births registered in Hungary to mothers resident in Hungary. Since the balance of the two corrections is positive, a higher number of births and better demographic indicators result from this definition. For example, in 2016, the number of births by the mother's usual place of residence was 95,361, whereas according to the traditional

definition it was 93,063. (This is also why the Hungarian TFR published by Eurostat is 1.53, whereas the HCSO's figure is 1.49.) The records based on 'usual place of residence' would appear to be more accurate and fairer than the traditional ones. And indeed, they would be, if the 'usual place of residence' could truly be known in the case of every woman giving birth. In practice, however, a significant portion of émigré Hungarians also keep their registered residence in Hungary, and the Hungarian registration of a child after a foreign birth does not in itself mean that the child normally resides – i.e. has the usual place of residence – in Hungary. Therefore, the traditional method seems more appropriate.

In recent years, there has been an increase in the amount of information and in the data available on the number of 'Hungarian' children born abroad and on the growth of this group as a consequence of emigration. Two types of data sources are currently accessible on 'Hungarian children' born abroad – but unfortunately, in their present form they are unsuitable for any meaningful conclusions (beyond publication of the raw data). One of the sources is the Hungarian birth registration data; the other is the official statistics of other countries. Hungarian citizens not born in Hungary can (also) be registered in Hungary retrospectively. (But of course, no one loses their Hungarian citizenship secured by birth, even if not registered here.) From 2010–2016, there were 78,000 birth registrations of this kind. This number, however, includes the children born to families with dual citizenship who live in neighbouring countries (e.g. Szeklerland in Romania), or later generations of émigré families with Hungarian roots (living e.g. in Israel or Brazil) also registered in Hungary for

the sake of citizenship, or children born into German-Hungarian mixed marriages in Germany, or many other groups.

In many cases, foreign countries also keep records of the citizenship and ethnic origins of the children born there and of their mothers. The largest number of Hungarian children born abroad are born in Romania, and specifically Transylvania (e.g. 9,071 births in 2015). In Romania, 'Hungarian' is offered as an ethnic category in statistics, and at birth the ethnicity of a child is recorded; this is where the figures for Hungarian births often originate. The Serbian data come from such sources, too. By contrast, however, Austria, Germany and Switzerland, for example, do not keep ethnic records based on self-identification; what we do find there is the number of births to mothers with Hungarian citizenship. And a steep rise is apparent: in 2015, there were 323 births of this kind in Switzerland, over a thousand in Austria and over 2,000 in Germany,

with the figures having doubled since 2012. A proportion of the parents of these children are not, however, normally resident in the given country – for example, workers commuting from their homes in Hungary to Austria's Burgenland. On the other hand, a significant portion of the increase is accounted for by families, none of whose members have ever lived in Hungary (having emigrated from, say, Romania or Ukraine as dual citizens).

In the case of England and Wales, the disclosure is made individually: 'mother born in Hungary' or 'father born in Hungary'. By contrast, in Holland the data show how many children born had 'at least one parent of Hungarian origin' (whatever 'Hungarian origin' might mean). These foreign data cannot really be aggregated: first, because they differ from country to country, and secondly because they provide cumulative information about various sub-groups.

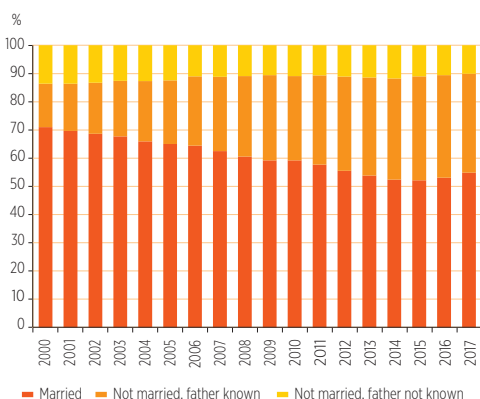
2015. The trend had turned a corner by 2017, however, as the proportion of children born in wedlock grew to 54.9%. Of course, it remains to be seen how enduring this turn will be, given that willingness to marry began to drop again in 2016. (Incidentally, it would not contradict European trends to have the majority of children born out of wedlock: according to the most recent (2016) Eurostat data, over half of all children were born outside marriage in Bulgaria, Denmark, Estonia, France, Holland, Portugal, Sweden and Slovenia.)

Children born out of wedlock in Hungary are also predominantly born not to single parents, but to cohabiting partners. However, there are no precise statistics on how many children are born within

cohabiting partnerships, as vital statistics collected at birth note only the marital status of the mother. We can therefore only infer the cohabiting partnerships indirectly from vital data. We assume that mothers who did (or could) not give the data for the father at the time of birth must be in a rather tenuous relationship with the father of the child. (For more on the demographic interpretation, estimates and supposed attributes of unknown fathers, see the chapter 'Fatherhood: Parenthood and family roles for men' in this volume.) If we look at the three categories – married mothers, unmarried mothers who provide information on the father of their child, and unmarried mother who do not – then since 2000, the proportion of those unmarried

mothers who declare the father of their child has grown from 15% to 35%, while the share of those who are unmarried but offer no information about the father of their child has dropped from 14% to 10% (Figure 8). On these grounds, we believe that the willingness to have children outside a close relationship (i.e. as a single parent) has certainly not grown since the turn of the millennium, and is a fairly rare phenomenon (perhaps even in recession in recent years).

Figure 8: Live births, by mother's marital status and information reported about the father, 2000–2017



Source: HCSO vital statistics.

INTENDED AND ACTUAL BEHAVIOUR: POSTPONEMENT AND ABANDONMENT OF PLANS FOR CHILDREN

Though the tendency to postpone having children seems to be coming to an end, it is worth examining the mechanisms of postponement in the period for which it was a characteristic feature – i.e. from the mid-1990s through the first decade of the millennium – in order to assist (future) assessment of the development of fertility. Earlier we concluded (Kapitány and Spéder 2015) that individuals are often unable to carry through

their short-term plans, and so *step by step* postpone their fertility intentions. These results suggest that this postponement is not a result of any deliberate intention, but simply ‘happens’ because of what life throws up.

A better understanding of the nature of postponement may be gained by comparing the changes that have occurred in the decade and a half from 2001 to 2016 in people’s opinions about the best age for a woman and a man to have their first child. It should be noted that between 2000 and 2015, the mean age of mothers at first birth rose from 25.3 to 28.4 – that is, by nearly three years.

In 2001, the adult population put the ideal age at which to have a first child at 24.8 for women and 27.8 for men (Table 1). No strong difference of opinion can be found across age groups: however, it is worth noting that younger people seem to put the ideal age somewhat later.

Table 1: Opinions about the timing of parenthood: the most suitable age at which to have a first child, for a woman and for a man, 2001, 2016

Sex	Year	Age group			Total population ^a
		22–29	30–39	40–44	
For a woman	2001	25.6	25.3	24.9	24.8
	2016	26.3	26.9	26.6	26.2
For a man	2001	28.3	28.5	27.9	27.8
	2016	28.5	29.3	29.0	28.7

^a Since the data come from a panel survey and additional sample, the total population is aged 18–74 in 2001 and 22–89 in 2016.

Source: HDRI GGS Turning Points of the Life-course survey, Waves 1 and 5 (weighted data); authors’ own calculations.

It is clear that in the course of the decade and a half under investigation, the mean age considered to be ideal for parenthood rose; however, the growth lags (far) behind the actual shift that took place. Based on

the opinion of the whole population, the ideal age at which to have a first child rose for women by 1.4 years and for men by 0.9 years. The growth is lower in the younger age groups – the groups themselves concerned with becoming parents: the rise is 0.7 and 0.2 years, respectively, among 22–29-year-olds. Usually, the age considered ideal for parenthood does not tally with individual plans to become a parent; nonetheless, the ideal age might be considered as a reminder to both women and men that it is high time they started a family. The data suggest that the age-reminder did not shift to a much later time as a result of actual fertility postponement. This leaves open various interpretations. It may suggest that ideas and concepts lag behind altered behaviour (adaptation); however, it may also indicate that postponement is not a result of any deliberate individual decision to put off parenthood, but evolves as a reaction to changing circumstances. Although those involved may consider an earlier age to be the ideal (or best) age at which to become a parent, in reality they still manage to become fathers and mothers later than planned.

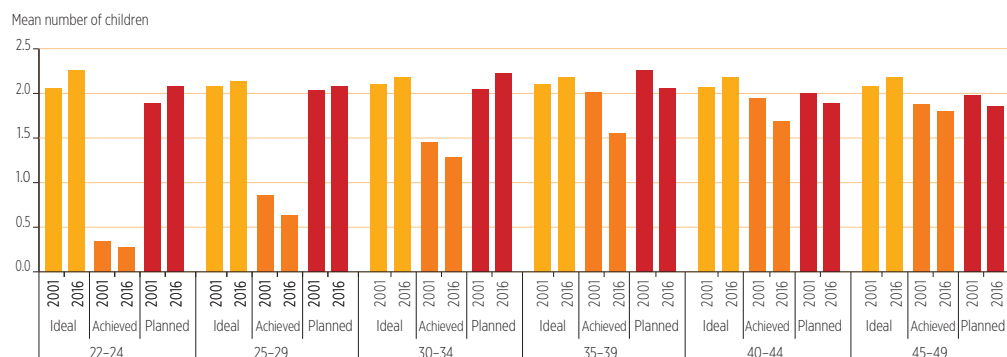
Subjective *fertility indicators*, especially the indicator of what is considered the *ideal number of children*⁶, plays a pre-eminent role in several respects. These indicators are often understood as representing social expectations and recommendations (norms) prevalent in society, as well as an anticipation of future fertility levels. With the help of the Turning Points of the Life-course survey – the Hungarian Generations and Gender Survey (GGS) – it is possible to examine the changes in these concepts and see whether the notions of age groups have changed with regard either to the ideal number of children or to the number of children planned for their own families. We also compare how the relationship

between the number of children already achieved and the total number of children planned has changed (*Figures 9 and 10*).

Though the indicator for the ideal number of children grew somewhat over the decade and a half investigated, our estimate leans towards an assumption of stability. The value for both women of childbearing age and men has grown from 2.1 to 2.2. This slight increase can be seen in every age group, but is perhaps most apparent among the youngest. This subjective fertility indicator is therefore still above the level of replacement fertility. The subjective indicator of *planned number of children*⁶ for their own family is slightly lower – 2.0 among women and 1.9 among men in 2016. Though this, too, suggests stability on the whole, a more rigorous examination by age groups shows a change in the pattern from about the age of 35: between 2011 and 2016 the planned number of children grew in the younger population, but decreased in the older age groups.

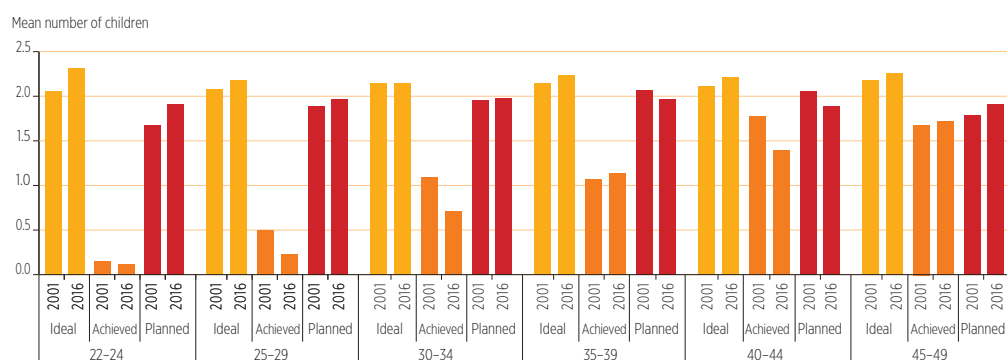
For every age group and for both sexes, the planned number of children is clearly lower than the ideal number of children; and the actual number of children is necessarily lower than the planned number of children. In comparing the actual (reached) and planned number of children overall, the results show a growth in the gap between the two indicators. Among women, the actual difference grew from 0.48 to 0.65 – hardly a surprise, considering that so long as fertility behaviour is characterized by postponement, the gap will keep growing in the younger age groups. Among 25–29-year-old women, for example, the gap between planned and actual fertility rose from 1.17 to 1.45. The difficulty in realizing the plans becomes apparent when the age groups 35–39 and 40–44 are examined more closely. In the latter age group, the difference was only 0.05 in 2001, but was 0.2 in 2016. The divergence

Figure 9: Number of children considered ideal, achieved and planned for their own families, among women in Hungary, by age group, 2001, 2016



Source: HDRI GGS Turning Points of the Life-course survey, Waves 1 and 5 (weighted data); authors' own calculations.

Figure 10: Number of children considered ideal, achieved, and planned for their own families among men in Hungary, by age group, 2001, 2016



Source: HDRI GGS Turning Points of the Life-course survey, Waves 1 and 5 (weighted data); authors' own calculations.

is much higher in the case of men; and although their fertility career does not end at 50, in practice the proportion of men over 50 who are willing to have children is negligible.

The obvious conclusion from the way in which the indicators for actual and planned

numbers of children have evolved is that, after falling further and further behind with their plans for children, and having reached a certain age, people are 'pruning back' their plans for more children. As a consequence, a decrease in completed fertility is to be expected.

GLOSSARY

Age-specific fertility rate (ASFR): Fertility can be calculated for women of a certain age in order to describe or compare over time the change in fertility behaviour by age. The concept is usually expressed as per thousand (‰). The benchmark is the mid-year population of the same age as the new mothers.

Ideal number of children: The number of children considered ideal shows what people see as the ‘right’ or a ‘good’ number of children for a family to have. In Hungarian practice, this is usually measured by the response to the question: ‘In general, how many children are ideal in a family?’

Planned number of children: The sum of the number of children already living plus the number of children still desired (the figure for the desired number of children only refers to those children still planned).

Total fertility rate (TFR): The number of children who would be born per woman (or per 1,000 women) if she (they) were to pass through the childbearing years bearing children according to a current schedule of age-specific fertility rates.

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