

DATA & TRENDS

Fluidity in fertility timing intentions among childless men and women

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ABSTRACT This study examines how childless individuals revise their intended age at first birth as they move through adulthood, providing a longitudinal view of how fertility timing delays unfold over the reproductive years. Using 14 waves of German Family Panel (PAIRFAM) data for the 1981–1983 and 1991–1993 birth cohorts, it tracks changes in intended timing and lifetime fertility orientations across five-year age intervals and annual partnership transitions. Results show that intentions to have a first child after age 35 are rare in early adulthood, with late first birth expectations and disengagement from childbearing emerging when earlier plans remain unfulfilled. A strong digit preference in the intended age is observed, with men favouring round numbers, and women postponing more gradually. Partnership status plays a decisive role, especially in later life, shaping whether the intentions are maintained, adjusted, realised or discontinued. Overall, the study confirms the fluid and context-dependent nature of fertility timing intentions.

KEYWORDS Fluidity • Fertility timing intentions • Lifetime fertility orientations • Childless • Postponement • Partnership transitions.

Introduction

In contemporary Europe, where fertility rates have fallen below replacement level, actual births often fall short of intended numbers, giving rise to what is termed a “fertility gap” (Beaujouan and Berghammer, 2019; Harknett and Hartnett, 2014; Testa, 2012). This gap is partly attributed to the postponement effect, characterised by repeated delays in the timing of the first birth (Beaujouan and Berghammer, 2019; Bratti and Tatsiramos, 2012). These delays, combined with limited reproductive capacity at older ages, not only impact the realisation of intended higher-order births, but also contribute to eventual childlessness (Rybińska and Morgan, 2019). Against this backdrop, this study seeks to examine how such delays unfold across the reproductive life course, and to identify the life stages at which postponement or disengagement from childbearing becomes most prevalent.

Numerous studies have examined “fertility timing”, or the age at which individuals or couples have children, highlighting a trend of increasing age at first birth (Bongaarts et al., 2017; Frejka and Sardon, 2006; Sobotka and Beaujouan, 2018). However, only a few recent

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studies have explored “fertility timing intentions”, referring to the age at which people want to have children (Slabá et al., 2024; Verweij et al., 2020). While these intentions offer valuable insight into how individuals anticipate and plan parenthood, there is little research on how they evolve as people age or experience changes in their personal circumstances.

In a context of late and low fertility, understanding fertility timing intentions is crucial, as age constitutes a non-negotiable biological constraint, which is further compounded by social norms and life course uncertainties (Billari et al., 2011; Datta et al., 2023). Individuals often anchor their childbearing plans in relation to their current age, envisioning parenthood within what they perceive as a socially and biologically acceptable window. Yet this window is highly sensitive to changing life circumstances, such as partnership instability, career transitions or financial insecurity, which can alter both the perceived feasibility of parenthood and the point in time at which it is seen as attainable (Martin, 2017; Mills et al., 2011). The time frame in which fertility intentions are expressed is not only indicative of the expected entry into parenthood, but also shapes subsequent reproductive choices, behaviours and outcomes (Ní Bhrolcháin et al., 2010). Rather than focusing on specific short-term horizons such as (not) wanting to have a child within the next few years, this study examines the age at which individuals envisage having their first child, and how this intended age changes or remains stable over time, together with their broader orientation towards having or not having children.

Given the strong link between first birth timing and (non-)realisation of reproductive goals, it is important to understand how childless individuals revise their intended age for parenthood as they move through life. While delayed parenthood and involuntary childlessness are well documented (Lesthaeghe, 2010; Te Velde et al., 2012), less is known about the pace and patterns of postponement and the pathways that lead some individuals to ultimately forgo childbearing. Several questions remain: Do people continuously push their plans forward, or do they show more complex patterns of adjustment? Does the rhythm of postponement differ between men and women? Is stating: “I do not want a child” a final decision, or can it also shift towards wanting one? While perpetual postponement suggests a one-directional delay of parenthood, life’s ups and downs may also prompt individuals to revise their intended age downwards, creating oscillations between postponement and re-engagement with parenthood. Tracing these shifts offers valuable insight into the fluidity of fertility timing intentions – how they evolve, stabilise, realise or dissolve over the life course.

The effect of perceived control over when to have a child varies widely depending on personal circumstances, and the degree of certainty of reproductive intentions often varies based on factors like age and partnership status (Dommermuth et al., 2011; Ní Bhrolcháin and Beaujouan, 2011). Age plays a crucial role in forming and realising childbearing plans (Beaujouan et al., 2019; Kapitány and Spéder, 2012), as both biological limits and socially accepted age norms influence the timing of parenthood, with these constraints being particularly pronounced among women (Billari et al., 2011; Dunson, 2002; Liefbroer et al., 2014; Settersten Jr and Hägestad, 1996). These gendered social expectations combined with biological realities likely produce variation in how men and women set and revise their intended first birth timing. Furthermore, the absence of a partner is frequently cited as a key factor in uncertainty around fertility intentions (Berrington, 2004; Kuhnt et al., 2021; Ní Bhrolcháin and Beaujouan, 2011) and can lead to delays or even result in childlessness

(Schmidt et al., 2012; Sobotka and Testa, 2008). In the broader effort to identify the various constraints that hinder individuals from realising their intended first birth timing, this study takes an initial step by focusing on age and partnership transitions, given their central role in shaping fertility intentions and their realisation, while acknowledging potential gender differences.

Using longitudinal data from the German Panel Analysis of Intimate Relationships and Family Dynamics (PAIRFAM) (Brüderl et al., 2023; Huinink et al., 2011), which is a representative sample of the German population, this study explores the fluidity of lifetime childbearing intentions and their timing among childless individuals. Specifically, it descriptively examines how these intentions evolve as people age and change their partnership status.

Theoretical background

In demographic research, fertility intentions are typically regarded as the closest reflection of concrete plans and expectations about having children, positioned between broad ideals and actual behaviour (Miller, 1994). Unlike fertility desires, which tend to be stable, intentions are more responsive to current circumstances and entail a commitment to act (Miller, 2011). The Theory of Planned Behaviour highlights how perceived behavioural control and situational context shape these intentions as rational, goal-directed decisions (Ajzen and Klobas, 2013; Fishbein and Ajzen, 2011). However, scholars have challenged the notion of fully rational decision-making by emphasising the role of uncertainty in the formation and realisation of fertility intentions (Kuhnt et al., 2021; Ní Bhrolcháin and Beaujouan, 2011). As individuals progress through adulthood, they adjust their plans in response to shifting opportunities, risks and constraints (Liefbroer, 2009; Settersten Jr and Mayer, 1997). Such adaptability reflects bounded rationality rather than inconsistency: people aim to align their reproductive plans with evolving life conditions and perceived windows of opportunity. The idea of intentions as “moving targets” (Lee, 1980; Morgan, 2001) captures this fluidity, consistent with opportunity- and constraint-based perspectives (Friedman et al., 1994), which stress that personal or structural barriers directly condition the feasibility and timing of childbearing.

More recently, the narrative framework has highlighted the role of imagined futures in shaping fertility plans (Vignoli, Bazzani, et al., 2020; Vignoli, Guetto, et al., 2020). From this viewpoint, uncertainty is not simply an obstacle, but a condition through which individuals reinterpret possibilities for family life. While structural and situational constraints inevitably shape expectations, people also construct narratives about what could happen, imagining parenthood pathways that extend beyond their current circumstances (Vignoli, Guetto, et al., 2020). Fertility decisions are therefore influenced as much by anticipated futures as by present opportunities and past experiences (Vignoli, Bazzani, et al., 2020). Although growing uncertainty may discourage concrete planning, many people continue to attach emotional value to the idea of having children, using imagined futures to keep the prospect of parenthood open. This coexistence of uncertainty and aspiration makes the navigation of fertility intentions highly dynamic and unpredictable.

Building on these theoretical perspectives, this study places age-based fertility intentions at the centre of reproductive planning. Age functions as both an organising principle of the life course and an unavoidable constraint (Marini, 1984; Settersten Jr and Mayer, 1997). Unlike other factors, it moves steadily forward, shaping how individuals assess the feasibility of parenthood. Its constant progression contrasts with the fluidity of social, economic and relational circumstances, making it a unique and powerful marker of how people recalibrate their childbearing plans as conditions change. Although social norms about the “right” age to have a child can evolve, biological limits remain far less flexible, giving age a dual social and biological significance in fertility decision-making (Lazzari et al., 2025). By tracing how the intended age at first birth changes or remains stable as individuals grow older and move through different life stages, this study captures the dynamics of postponement and reconsideration, offering new insight into the temporal dimension of fertility intentions.

Data and methods

Germany is a particularly well-suited setting for this study. As one of Europe’s “low and late” fertility societies, it combines a high mean age at first birth with a relatively large proportion of permanently childless individuals (Bujard, 2015; German Federal Statistical Office, 2025; OECD, 2024). It thus exemplifies the tensions between modern life course uncertainty and reproductive planning. Examining how individuals adjust their intended timing of entry into parenthood in this context offers insight into whether late family formation reflects deliberate delay, accumulated constraints or adaptive revisions of earlier intentions. It also helps clarify the extent to which childlessness represents a longstanding preference or results from transitions between wanting and not wanting to have a child over time.

Launched in 2008, PAIRFAM conducted annual surveys across 14 waves. The study began by recruiting individuals from three birth cohorts: 1971–1973, 1981–1983 and 1991–1993. To enhance representativeness, PAIRFAM introduced a refreshment sample of approximately 5000 respondents in wave 11, which strengthened coverage in the 1981–1983 and 1991–1993 cohorts and added a younger cohort born in 2001–2003.

For this study, two cohorts, those born in 1991–1993 and 1981–1983, were selected to ensure the inclusion of individuals across the full range of reproductive ages. At the first survey in 2008, respondents in the younger cohort were in late adolescence (about 15–17 years), and those in the older cohort were in their mid-twenties (about 25–27 years). First-time respondents from the refreshment sample, introduced in wave 11, were aged about 25–27 years (1991–1993 cohort) and about 35–37 years (1981–1983 cohort). This design allowed us to observe the 1991–1993 cohort primarily during the early phase of family formation (ages 15–29) and the 1981–1983 cohort during the later reproductive years, when childbearing decisions typically intensify (ages 25–39). As these life stages were captured in separate cohorts rather than the same individuals being followed into older ages, differences at later ages may also reflect cohort-specific patterns along with life course progression. The analytical sample was restricted to men and women who were childless at

their first survey participation (baseline or refreshment) in order to better understand delays in entry into parenthood as well as potential pathways towards eventual childlessness. However, as the group of still-childless respondents becomes increasingly selective over time, caution is needed when interpreting later age patterns. Furthermore, while the study compares responses across different ages and cohorts, it cannot disentangle age effects from period effects. This limitation is inherent to the observational design and should be considered when interpreting cohort and age-specific findings.

All 14 waves of data were used. For individuals (or their partners) who became pregnant or entered parenthood during the survey, that event marked the last included observation, and any subsequent observations of these individuals in the survey were excluded from the analysis. This resulted in 41,959 observations from 8380 individuals.

The main variable of interest was the “realistic intended age at first childbirth”. Childless respondents were asked: “*When you think realistically about having children, how old do you think you will be when you have your first child?*” Respondents could provide a specific age, indicate they hadn’t thought about it or leave the question unanswered. The question was not posed in 15.7% of cases: when respondents did not answer the question about having children, expressed no desire to have children, said they had not thought about having children, cited infertility (self or partner) or did not indicate their fertility status. Such cases were excluded from the study sample, except when respondents explicitly stated that they did not want children (6.7% of cases). These responses were retained to track transitions between wanting and not wanting to have a child (i.e. lifetime fertility intentions). Additionally, responses in which the timing question was left unanswered or an invalid age was provided (i.e. below the respondent’s current age) were excluded, representing approximately 1% of the sample (380 out of 38,188 observations). Following these exclusions, the dataset included 37,808 observations from 8034 individuals who provided a specific intended age at childbearing, said they hadn’t thought about timing, expressed no desire for children or were pregnant/had a child since the previous wave.

To conduct the longitudinal analysis, 2030 individuals with only one wave of participation were excluded, resulting in 35,778 observations from 6004 individuals.

In the first part of the analysis, shifts in the intended age at first birth were assessed at five-year intervals. Using five-year age bands follows standard demographic convention and helps summarise meaningful changes in timing intentions. Individuals who were childless at the entry age and participated again five years later were tracked, providing a longitudinal view of how their intentions evolved as they aged. Respondents could either remain childless or enter pregnancy/parenthood during the interval. Those who stayed childless provided updated timing intentions, while those who became pregnant or had a child were classified under “pregnancy/childbirth”. This approach ensured consistent samples across ages. Sankey plots were used to display the number of individuals in each response category at both ages of the five-year interval, together with their movements between categories. This visualisation offers a descriptive overview of the pace and direction of changes in fertility timing intentions, showing how many individuals maintained, revised or discontinued their plans, and how many transitioned into parenthood.

To examine the pace of postponement in greater detail, a separate analysis was conducted among individuals who remained childless across each five-year interval. For each age pair,

the most frequent response on intended age was identified separately for men and women to highlight any existing gender differences in postponement patterns.

The second part examined changes in the intended age at first birth in relation to partnership transitions. Respondents were classified as single if they had no partner, and as partnered if they reported being in a relationship, regardless of their living arrangement (living apart together (LAT), cohabiting or married). To accurately assess the effect of partnership transitions, respondents with at least two observations in consecutive survey waves were included, resulting in 32,910 observations from 5765 individuals.

Transitions were analysed within three age brackets for each cohort: 16–19, 20–24 and 25–29 years for the 1991–1993 cohort; and 26–29, 30–34 and 35–39 years for the 1981–1983 cohort.

Four partnership transition categories were considered: “single to partnered”, “partnered to single”, “remained single” and “remained partnered”. Transitions in timing intentions between waves were grouped into 11 categories:

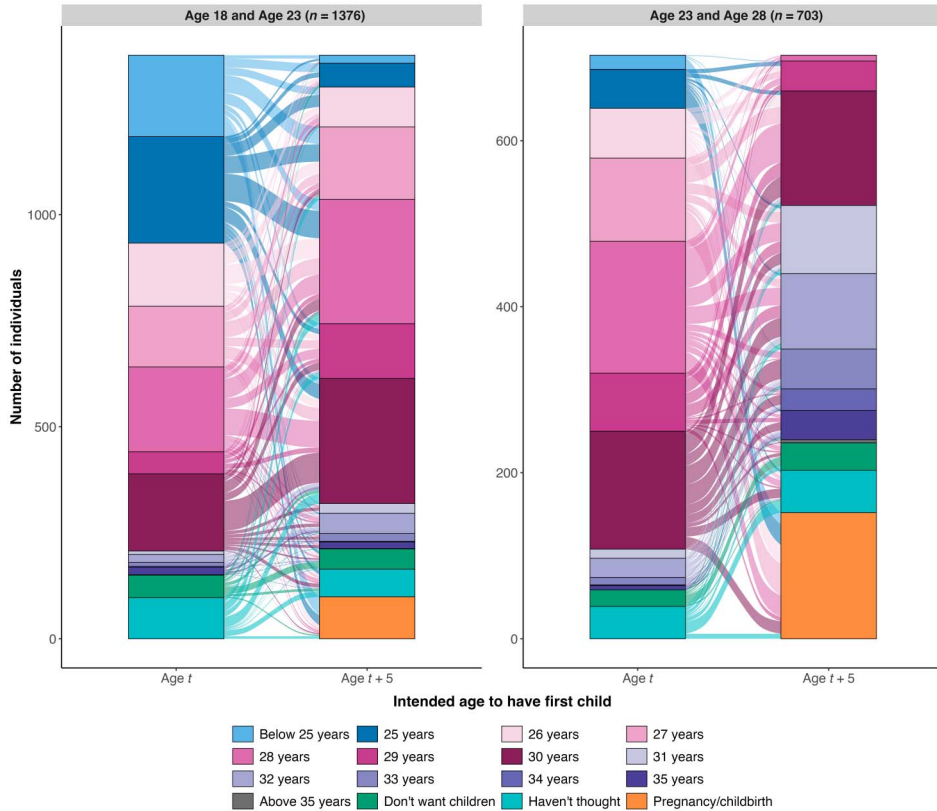
1. *-3 and less*: intended age dropped by 3+ years.
2. *-1 to -2*: intended age dropped by 1–2 years.
3. *Same age*: no change in intended age.
4. *+1 to +2*: intended age rose by 1–2 years.
5. *+3 and more*: intended age rose by 3+ years.
6. *Age → don't want a child/uncertain*: shifted from a specific age to uncertainty or no desire for children.
7. *Don't want a child/uncertain → age*: shifted from uncertainty or no desire for children to a specific age.
8. *Consistently don't want a child/uncertain*: repeated uncertainty or no desire for children.
9. *Transition between don't want a child and uncertain*: switched between “don't want a child” and “haven't thought about it”.
10. *Age → pregnancy/childbirth*: transition from stating an intended age to reporting pregnancy/childbirth.
11. *Don't want a child/uncertain → pregnancy/childbirth*: transition from uncertainty/no desire for children to pregnancy/childbirth.

Results

Changes in the realistic intended age at first birth: a five-year follow-up

This section explores changes in first birth intentions over a five-year period among childless individuals (at entry point) from the 1991–1993 and 1981–1983 cohorts. Individuals were tracked from a starting age to five years later, capturing whether they remained childless, in which case their intended age at first birth was updated, or transitioned to pregnancy/childbirth. [Figures 1](#) and [2](#) illustrate these shifts for two age pairs in each cohort, showing the number of individuals moving between intention categories over time.

Figure 1 Transitions in responses on the realistic intended age at first childbirth over five years among individuals who were childless at the start of the interval, with flows shown for the age pairs 18 → 23 and 23 → 28 (1991–1993 birth cohort)

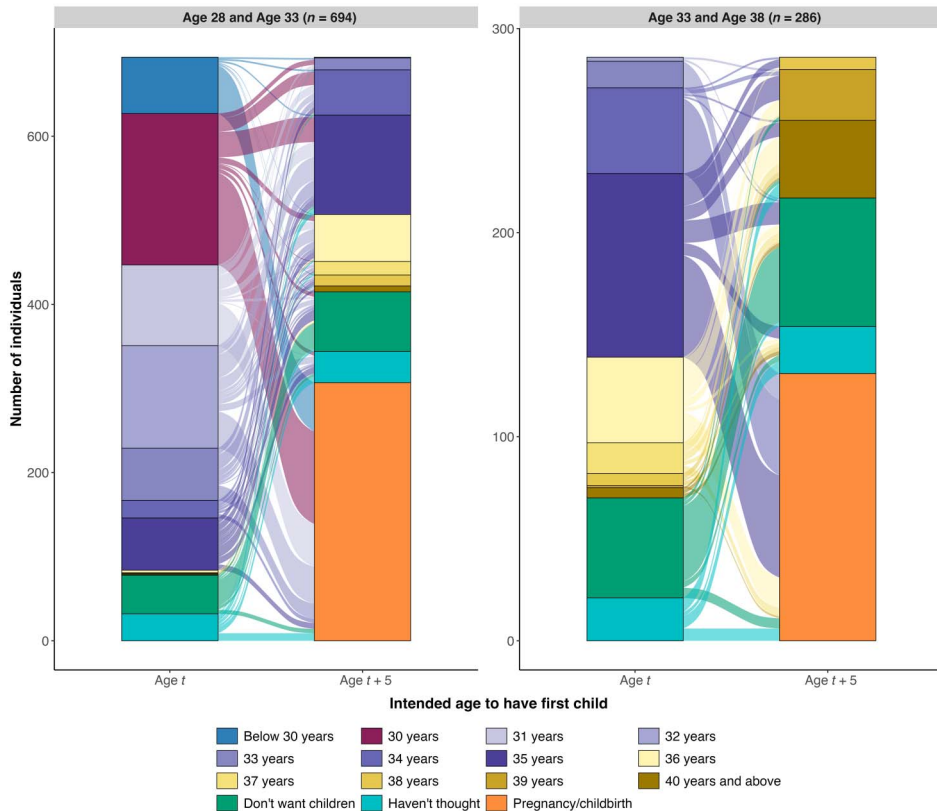


Interpretation note: In the age pair 23 and 28, a total of 703 childless individuals were followed from age 23 to age 28. At age 23, 383 respondents (55%) stated that they intended to have their first child by age 28. Five years later, however, only 152 individuals (22% of the original sample) reported a pregnancy or childbirth, indicating that a substantial share did not realize their earlier timing intentions. Focusing on those who specifically selected age 28 at age 23 (159 individuals, 23%), only 26 (16%) had a pregnancy/childbirth by age 28, while 47 (30%) postponed their intended age to 30, demonstrating both marked postponement and a clear digit preference.

Extended versions displaying all five-year age intervals comprising 10 age pairs in each birth cohort are provided in the Supplementary material (Figure S.1 and Figure S.2, available online at <https://doi.org/10.1553/p-9jb3-a3h3>).

Fertility plans in early adulthood were predominantly centred around the mid-to-late twenties, with most respondents aged 18 initially expecting to become parents between ages 25 and 28 in the 1991–1993 cohort (Figure 1). At this stage, very few respondents envisaged entering parenthood in their early thirties. Among those who remained childless five years later, when they were still only 23 years old, intentions shifted upwards, most frequently to

Figure 2 Transitions in responses on the realistic intended age at first childbirth over five years among individuals who were childless at the start of the interval, with flows shown for the age pairs 28 → 33 and 33 → 38 (1981–1983 birth cohort)



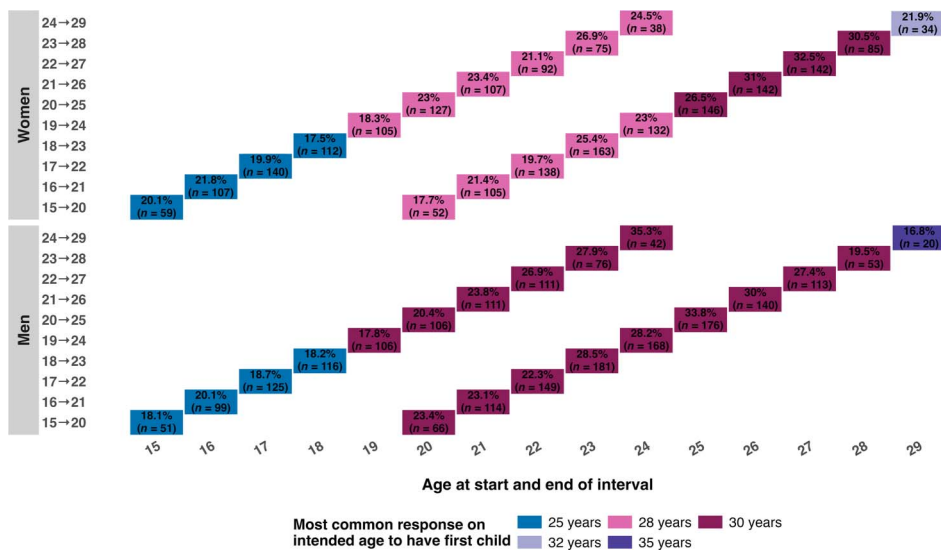
ages around 28, 29 or 30. This pattern was even more pronounced between the ages 23 and 28. It reveals that a process of adaptive postponement was already underway when the respondents were in their twenties. The share reporting that they did not want to have children remained low across all age pairs, indicating that delayed timing rather than rejection of parenthood characterised this stage. It is most striking that intentions to have a first child beyond age 35 were almost absent at both the entry and the follow-up ages, suggesting that a late first birth was not anticipated in early adulthood (see Supplementary Figure S.1 for extended age intervals).

Postponement patterns were even more pronounced at the later life stages captured in the 1981–1983 birth cohort (Figure 2). As individuals moved from their late twenties into their thirties while remaining childless, their first birth intentions shifted further towards their late thirties or even beyond. At the entry age of 28 (age pair 28–33), almost no respondents anticipated entering parenthood in their late thirties, yet by age 33, a notable share had

revised their expectations upwards to that range. Similarly, at age 38 (age pair 33–38), a growing proportion expected to have their first child at age 40 or older. These shifts indicate that a late first birth was rarely planned early on but emerged gradually as individuals approached the upper limits of reproductive ages. The share expressing no desire for children also rose steadily, especially among those nearing age 40, suggesting a gradual disengagement from childbearing plans. At the same time, transitions to pregnancy/childbirth increased with age, indicating that despite delays, many respondents still pursued parenthood throughout their thirties (see Supplementary Figure S.2 for extended age intervals).

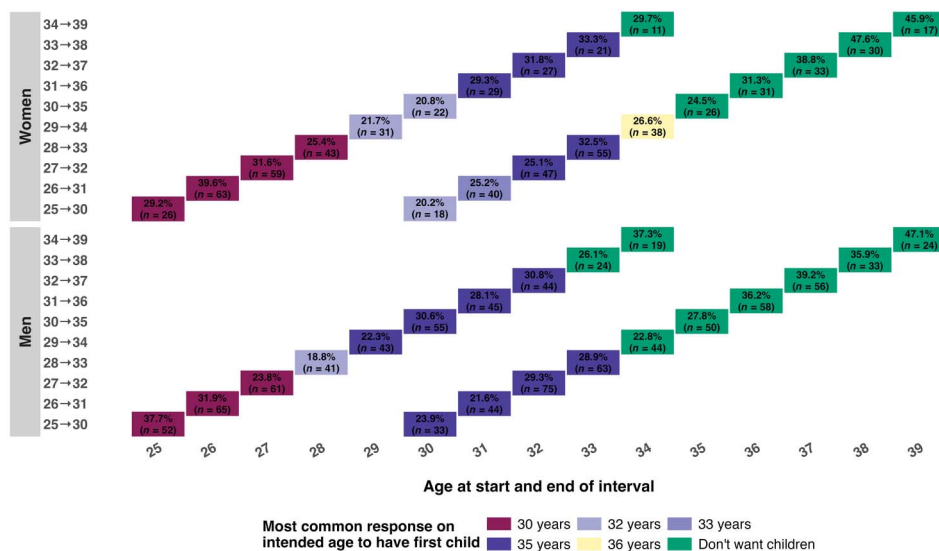
Among respondents who remained childless over the five-year interval, Figures 3 and 4 display the most common intended age at first birth at each time point, by gender, for the 1991–1993 and 1981–1983 birth cohorts, respectively. A clear digit preference is visible, with respondents frequently choosing ages ending in zero, five or even numbers. In terms of the pace of postponement, women tended to delay childbearing more gradually than men, typically selecting target ages closer to their current age. At younger ages, as seen in the younger cohort (Figure 3), women often selected ages like 28 rather than jumping directly to age 30, whereas men displayed a stronger tendency towards mid- or round-number

Figure 3 Most common response on the realistic intended age at first childbirth (indicated by the cell's colour) among individuals who were childless at both the beginning and the end of the five-year interval, by gender for the 1991–1993 birth cohort



Interpretation note: In the five-year interval of age 24 → 29, among individuals who remained childless throughout, the most common intended age to have a first child at the starting point (age 24) was 28 years for women (24.5%) and 30 years for men (35.3%). Five years later, at age 29, the most common response among these same women had shifted to 32 years (21.9%), while for men it had shifted to 35 years (16.8%). These shifts illustrate a clear pattern of postponement, with men both initially reporting later intended childbearing ages and showing a greater upward revision over time compared to women.

Figure 4 Most common response on the realistic intended age at first childbirth (indicated by the cell's colour) among individuals who were childless at both the beginning and the end of the five-year interval, by gender for the 1981–1983 birth cohort



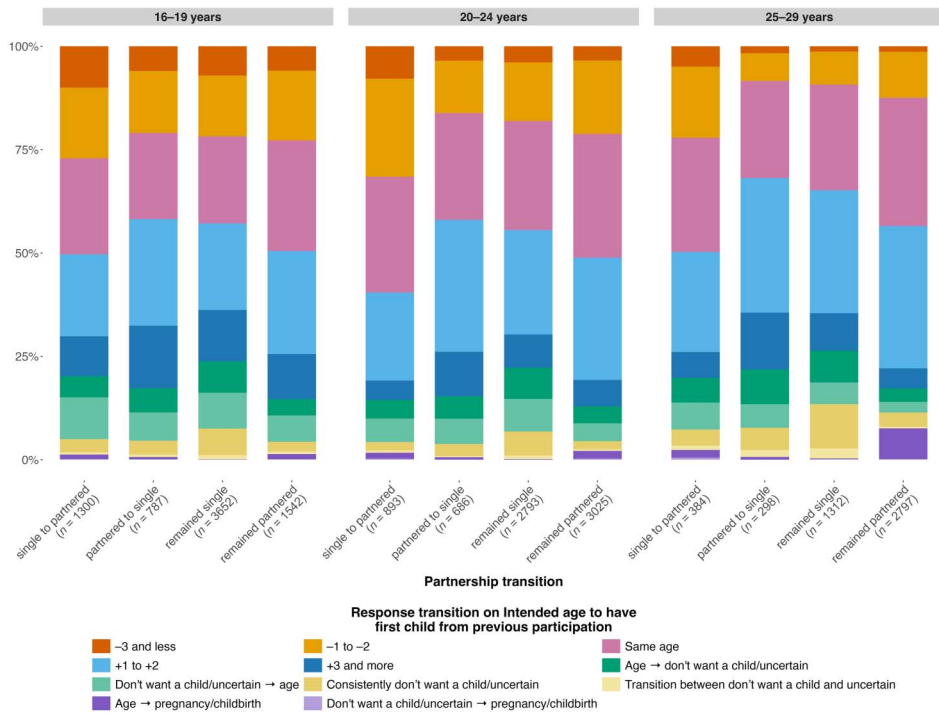
preferences. At older ages, captured in the older cohort (Figure 4), women continued to progress more incrementally, favouring intermediate ages such as 31 or 33, while men were more likely make larger shifts – most notably towards age 35. This gender difference in the pattern of postponement was evident across most of the five-year intervals. However, at late reproductive ages, this pattern faded as an increasing share of both men and women reported no intention to have children.

Partnership transitions and shifts in the intended age at first childbirth

Figures 5 and 6 illustrate changes in the respondents' intended age at first childbirth based on partnership transitions between consecutive survey waves for the 1991–1993 and 1981–1983 cohorts, respectively. Each bar represents the distribution of 11 categories of change, distinguishing between upward or downward revisions, unchanged intentions and movements between uncertainty, rejection and positive fertility plans.

Across both cohorts, however at different life stages, increases in the intended age at first childbirth of 1–2 years, as well as larger increases (3+ years), were most prevalent among individuals who moved from being partnered to being single, suggesting that partnership dissolution commonly coincided with postponement of fertility plans. In contrast, individuals were also found to shift their intended childbearing age downwards across all age groups, with this behaviour being more common among younger individuals and those

Figure 5 Change in the intended childbearing age (distribution of response transition categories), by partnership transition and age group (1991–1993 birth cohort).

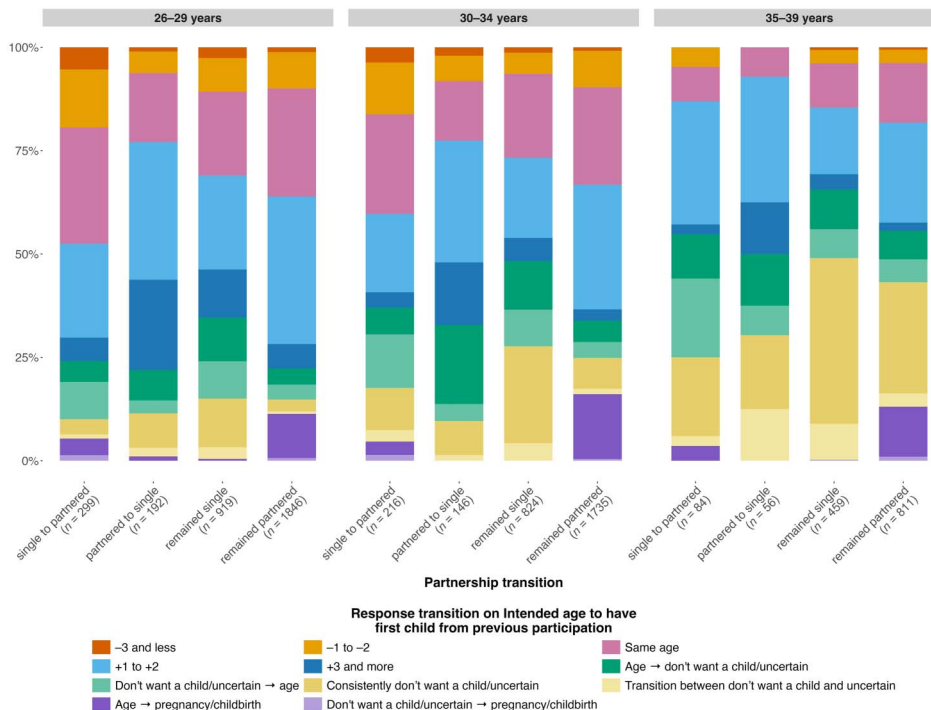


transitioning from being single to being partnered, reflecting the influence of partnership formation in bringing their intentions closer in time.

Younger respondents (cohort 1991–1993) mostly made small incremental changes, generally maintaining or slightly adjusting their intended age, particularly when remaining partnered. Larger upward revisions of 3+ years were rare and were mainly associated with transitions to singlehood. Overall, transitions involving uncertainty, rejection or the move to pregnancy or childbirth were infrequent in these younger age groups.

In contrast, among older respondents (cohort 1981–1983), changes in timing intentions were more responsive to partnership dynamics. Respondents in their thirties who remained single or experienced a dissolution were markedly more likely to report uncertainty or a lack of desire for children in both years, while those forming or maintaining partnerships were more likely to retain the previously stated age or to transition to “pregnancy/childbirth”. Among the oldest group (35–39), frequent shifts between the “don’t want a child” and “uncertain” categories highlighted their growing ambivalence about future parenthood in the absence of a partner. Although transitions from “don’t want a child” or “uncertain” to specifying an intended age were not uncommon, transitions leading directly to “pregnancy/childbirth” were rare. Together, these movements nevertheless show that even negative or

Figure 6 Change in the intended childbearing age (distribution of response transition categories), by partnership transition and age group (1981–1983 birth cohort).



Interpretation note: In the 35–39 years group, individuals who remained single across consecutive waves were more likely to consistently report that they “Don’t want a child/Uncertainty” compared to those in other partnership transition categories and age groups. In contrast, among those who transitioned from being single to partnered in this age group, a relatively larger share shifted from previously stating no desire for children or expressing uncertainty to specifying an intended age for first birth.

indeterminate intentions can, under changing circumstances, turn into active or realised childbearing plans.

When comparing similar life stages across cohorts, the distributions for ages 25–29 in the 1991–1993 cohort and ages 26–29 in the 1981–1983 cohort appear broadly similar, indicating only modest cohort differences in how partnership trajectories shaped short-term adjustments in fertility timing. Respondents in the younger cohort were slightly more likely to maintain the same intended age when transitioning from being partnered to being single or remaining single, whereas a larger share among the older cohort advanced their intended age by 3+ years following a union dissolution. This difference may partly reflect variation in baseline expectations between the two cohorts: individuals in the 1991–1993 cohort may have initially projected parenthood at a more distant age, while those in the 1981–1983 cohort may have envisioned it sooner, and therefore adjusted their intentions more sharply when their partnerships ended.

Further differences in these shifting patterns between men and women within each cohort (1991–1993 and 1981–1983) are presented in Supplementary [Figures S.3](#) and [S.4](#). These additional graphs reveal broadly similar partnership-related dynamics for both genders but also highlight some nuances – for instance, slightly stronger postponement responses among men following partnership dissolution and marginally higher stability of intentions among women who remained partnered. One counterintuitive finding appears in the 35–39 age group, where a higher share of both men and women who transitioned from being single to being partnered fell into the “+1 to +2” category than into the other age groups, a pattern that warrants further consideration.¹

Discussion

The aim of this study was to examine the nature of fertility postponement by analysing the intended age at entry into parenthood with a longitudinal approach. Tracking childless individuals over time revealed that young adults rarely intended to have children after age 35, and late first birth intentions typically emerged only after individuals had entered their thirties without having had children. These results align with the observation by Verweij et al. (2020) that asking individuals at higher ages about their desired age for having a first child likely captures an updated timing rather than their original intentions. A significant share of respondents in their late thirties shifted from having positive fertility intentions to stating that they “don’t want a child”. These findings indicate that late parenthood or childlessness is not always an early, deliberate choice, but is instead often the result of gradual postponement.

A pronounced digit preference emerged in respondents’ reported intended ages, aligning with prior evidence that individuals tend to round their expectations to socially salient or aesthetically pleasing numbers (Camarda et al., 2008). Men often selected ages ending in zero or five, while women leaned towards even numbers closer to their current age, reflecting a slower pace of postponement. This difference may reflect both social expectations and biological realities, and how men and women interpret these factors when framing their reproductive timelines. From a social perspective, men’s round-number responses might indicate looser temporal framing and greater uncertainty in their plans, consistent with previous findings indicating that men often exhibit less time-bound or externally constrained fertility expectations (Berrington, 2004). In contrast, women’s gradual, stepwise adjustments in their intended age likely reflect an awareness of biological limits and a stronger sense of temporal urgency (Martin, 2017; Wagner et al., 2019). Prior research has linked such heaping in expected age reports to respondents’ uncertainty about whether they would

¹ The unexpectedly high proportion of respondents in the “+1 to +2” category among both men and women who transitioned to a partnership in the 35–39 age group results from two combined factors. First, the merging of the categories “+1” and “+2” masks a gender difference: nearly all women in this group increased their intended age by only one year, while more men increased it by two years. Second, at these higher ages, many respondents had already indicated an intended childbearing age close to their current age, leaving limited scope for downward adjustment. Consequently, even those who formed a partnership often showed a slight upward revision, as individuals surpassing their previously intended age had few options if they wished to maintain a positive intention.

ever have a child (Ní Bhrolcháin et al., 2010; Ní Bhrolcháin and Beaujouan, 2011). Despite having an option to say that they hadn't thought about it, respondents still exhibited this pattern, which suggests that they had a strong desire to have children, and thus that postponement was driven by unmet earlier intentions. However, further research is needed to unpack the meaning and predictive validity of digit preference in timing intentions. For instance, are individuals who report precise ages like 27, 29 or 31 more likely to realise their intentions compared to those who choose round or even numbers? How do these groups adjust their intended timing if their early plans go unfulfilled?

Partnership status significantly shaped timing decisions, especially in later life. Pregnancy/childbirth was more common in older age groups, particularly among those in a partnership for consecutive years, highlighting the importance of having a partner for parenthood transitions (Beaujouan et al., 2019). In contrast, older childless individuals tended to be the most uncertain about their childbearing plans following a partnership dissolution or continued singlehood. This uncertainty, often paired with a shift towards stating that they have no desire for children, suggests that, even in contemporary developed societies, positive childbearing plans remain closely tied to being in a relationship (Lappegård and Noack, 2015; Sturm et al., 2023). Interestingly, this study also reveals that individuals who had previously expressed uncertainty or stated they did not want children often revised their intentions within one year, particularly if they were older and had transitioned from being single to being partnered, by specifying a clear age for entering parenthood. These shifts, even within a one-year interval, reflect how sensitive fertility plans are to changes – or lack thereof – in partnership status (Buhr and Kuhnt, 2012). While this study treated all forms of partnership – LAT, cohabiting and married – as a single category, future research could disaggregate these relationship types and examine how partnership form and duration influence the formation and revision of fertility timing intentions.

Among younger respondents who are often still in education, unpartnered or in unstable relationships, fertility timing intentions may reflect normative expectations about “when one should” become a parent, rather than fully situated or actionable plans (Bernardi et al., 2014). At these younger ages, parenthood is a distant life event, and intended timing draws strongly on imagined futures shaped by hopes and general life course scripts, rather than unexpected constraints. Nonetheless, the survey's use of the term “realistic” encouraged respondents to anchor their answers in what they believe is feasible rather than ideal, and thus offers valuable insight into how young people anticipate the timing of parenthood, even if these expectations remain highly fluid and tentative (Iacovou and Tavares, 2011).

When comparing the two cohorts, it is important to acknowledge that they were observed at different stages of the life course. The younger cohort's responses reflect early, flexible expectations, whereas the older cohort's timing intentions are more “realistic” in the sense that childbearing becomes a near-term possibility (Verweij et al., 2020). At later ages, the childless population is also increasingly selective, as those with stronger or earlier fertility intentions are more likely to have already realised them (Testa and Toulemon, 2006). What remains observable in this study, therefore, are the shifting intentions of a subset of individuals whose timing plans are more directly shaped by partnership opportunities, perceived age limits and accumulating life course constraints. It is worth noting, however,

that the cohorts analysed here came of age at a time when postponement was already common, but had not yet reached current levels. In more recent cohorts, declarations of later starting ages may be more frequent, reflecting further normalisation of delayed childbearing. At the same time, some of the observed shifts in timing intentions may be influenced not only by age-related changes, but also by broader societal trends regarding childbearing norms. Since the study design cannot fully separate age effects from period influences, this remains an important area for future research to explore more explicitly.

A longitudinal approach offers a clearer understanding of how individuals adjust their fertility plans over time. Beyond the well-documented pattern of “perpetual postponement”, whereby individuals continually raise their intended age for parenthood (Berrington, 2004), this study suggests a broader range of delay patterns, some possibly conscious, others more unconscious. Age acts as a central organising factor in this process: as individuals move closer to what they perceive as a biologically and socially acceptable window for parenthood, their intentions become more constrained and less flexible. The gradual re-evaluation of intended timing, coupled with shifts between uncertainty about and rejection of parenthood, suggest that postponement is shaped by both ambivalence and genuine responses to changing life circumstances. Therefore, in addition to tracking desired family size or short-term intentions, greater attention should be paid to the timing dimension of fertility plans, and how it changes over the life course.

Conclusion

This study confirms the fluid nature of fertility timing intentions, demonstrating that the intended age at first birth is not fixed, but may shift upwards, shift downwards or remain stalled over time. Even lifetime intentions of remaining childless can change into positive fertility plans, and firm intentions to have a child at a specific age may evolve into uncertainty or be abandoned altogether. These patterns reinforce the notion that fertility intentions are not static expressions of preference, but are rather adaptive responses shaped by changing circumstances and constraints.

Future research should aim to identify the broader life course factors – such as partnership trajectories, employment stability and health – that make timing intentions particularly sensitive to revision, thereby offering a clearer understanding of the pathways leading to delayed parenthood and childlessness.

Supplementary materials

Available online at <https://doi.org/10.1553/p-9jb3-a3h3>

Supplementary file 1. Figures S.1–S.4



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References

- Ajzen, I., and Klobas, J. (2013). Fertility intentions: An approach based on the theory of planned behavior. *Demographic Research*, 29, 203–232. <https://doi.org/10.4054/DemRes.2013.29.8>
- Beaujouan, É., and Berghammer, C. (2019). The Gap Between Lifetime and Completed Fertility in Europe and the United States: A Cohort Approach. *Population Research and Policy Review*, 38(4), 507–535. <https://doi.org/10.1007/s11113-019-09516-3>
- Beaujouan, É., Reimondos, A., Gray, E., Evans, A., and Sobotka, T. (2019). Declining realisation of reproductive intentions with age. *Human Reproduction*, 34(10), 1906–1914. <https://doi.org/10.1093/humrep/dez150>
- Bernardi, L., Mynarska, M., and Rossier, C. (2014). Uncertain, changing and situated fertility intentions: A qualitative analysis. In *Reproductive decision-making in a macro-micro perspective* (pp. 113–139). Springer. https://doi.org/10.1007/978-94-017-9401-5_5
- Berrington, A. (2004). Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour. *Population Trends*, 117, 9–19. <http://eprints.soton.ac.uk/id/eprint/34148>
- Billari, F. C., Goisis, A., Liefbroer, A. C., Settersten, R. A., Aassve, A., Hagestad, G., and Spéder, Z. (2011). Social age deadlines for the childbearing of women and men. *Human Reproduction*, 26(3), 616–622. <https://doi.org/10.1093/humrep/deq360>
- Bongaarts, J., Mensch, B. S., and Blanc, A. K. (2017). Trends in the age at reproductive transitions in the developing world: The role of education. *Population Studies*, 71(2), 139–154. <https://doi.org/10.1080/00324728.2017.1291986>
- Bratti, M., and Tatsiramos, K. (2012). The effect of delaying motherhood on the second childbirth in Europe. *Journal of Population Economics*, 25(1), 291–321. <https://doi.org/10.1007/s00148-010-0341-9>
- Brüderl, J., Schmiedeberg, C., Castiglioni, L., Arránz Becker, O., Buhr, P., Fuß, D., Ludwig, V., Schröder, J., and Schumann, N. (2023). *The German Family Panel: Study Design and Cumulated Field Report (Waves 1 to 14)*.
- Buhr, P., and Kuhnt, A.-K. (2012). Die kurzfristige Stabilität des Kinderwunsches von Kinderlosen in Ost-und Westdeutschland: Eine Analyse mit den ersten beiden Wellen des deutschen Beziehungs-und Familienpanels. *Zeitschrift Für Familienforschung*, 2012, 275–297. <https://doi.org/10.2307/j.ctvdf036j.15>
- Bujard, M. (2015). Consequences of enduring low fertility—A German case study. Demographic projections and implications for different policy fields. *Comparative Population Studies*, 40(2). <https://doi.org/10.12765/CPoS-2015-06>
- Camarda, C. G., Eilers, P. H., and Gampe, J. (2008). Modelling general patterns of digit preference. *Statistical Modelling*, 8(4), 385–401. <https://doi.org/10.1177/1471082X0800800404>
- Datta, J., Maxwell, K. J., Mitchell, K. R., Lewis, R., and Wellings, K. (2023). Factors shaping the timing of later entry into parenthood: Narratives of choice and constraint. *Social Sciences and Humanities Open*, 8(1), 100700. <https://doi.org/10.1016/j.ssaho.2023.100700>
- Dommermuth, L., Klobas, J., and Lappegård, T. (2011). Now or later? The theory of planned behavior and timing of fertility intentions. *Advances in Life Course Research*, 16(1), 42–53. <https://doi.org/10.1016/j.alcr.2011.01.002>
- Dunson, D. B. (2002). Changes with age in the level and duration of fertility in the menstrual cycle. *Human Reproduction*, 17(5), 1399–1403. <https://doi.org/10.1093/humrep/17.5.1399>
- Fishbein, M., and Ajzen, I. (2011). Predicting and changing behavior: The reasoned action approach. *Psychology press*. <https://doi.org/10.4324/9780203838020>

- Frejka, T., and Sardon, J.-P. (2006). First birth trends in developed countries: Persisting parenthood postponement. *Demographic Research*, 15, 147–180. <https://doi.org/10.4054/DemRes.2006.15.6>
- Friedman, D., Hechter, M., and Kanazawa, S. (1994). A theory of the value of children. *Demography*, 31(3), 375–401. <https://doi.org/10.2307/2061749>
- German Federal Statistical Office. (2025). *Europe data—German Federal Statistical Office*. https://www.destatis.de/Europa/EN/Home/_node.html
- Harknett, K., and Hartnett, C. S. (2014). The gap between births intended and births achieved in 22 European countries, 2004–07. *Population Studies*, 68(3), 265–282. <https://doi.org/10.1080/00324728.2014.899612>
- Huinink, J., Brüderl, J., Nauck, B., Walper, S., Castiglioni, L., and Feldhaus, M. (2011). Panel analysis of intimate relationships and family dynamics (PAIRFAM): Conceptual framework and design. *Zeitschrift Fur Familienforschung*, 23(1), 77–101. <https://doi.org/10.20377/jfr-235>
- Iacovou, M., and Tavares, L. P. (2011). Yearning, learning, and conceding: Reasons men and women change their childbearing intentions. *Population and Development Review*, 37(1), 89–123. <https://doi.org/10.1111/j.1728-4457.2011.00391.x>
- Kapitány, B., and Spéder, Z. (2012). Realization, postponement or abandonment of childbearing intentions in four European countries. *Population*, 67(4), 599–629. <https://doi.org/10.3917/pope.1204.0599>
- Kuhnt, A.-K., Minkus, L., and Buhr, P. (2021). Uncertainty in fertility intentions from a life course perspective: Which life course markers matter? *JFR-Journal of Family Research*, 33(1), 184–207. <https://doi.org/10.20377/jfr-426>
- Lappegård, T., and Noack, T. (2015). The link between parenthood and partnership in contemporary Norway—Findings from focus group research. *Demographic Research*, 32, 287–310. <https://doi.org/10.4054/DemRes.2015.32.9>
- Lazzari, E., Compans, M.-C., and Beaujouan, É. (2025). Change in the perceived reproductive age window and delayed fertility in Europe. *Population Studies*, 79(1), 81–101. <https://doi.org/10.1080/00324728.2023.2298678>
- Lee, R. D. (1980). Aiming at a moving target: Period fertility and changing reproductive goals. *Population Studies*, 34(2), 205–226. <https://doi.org/10.1080/00324728.1980.10410385>
- Lesthaeghe, R. (2010). The unfolding story of the second demographic transition. *Population and Development Review*, 36(2), 211–251. <https://doi.org/10.1111/j.1728-4457.2010.00328.x>
- Liefbroer, A. C. (2009). Changes in family size intentions across young adulthood: A life-course perspective. *European Journal of Population*, 25(4), 363–386. <https://doi.org/10.1007/s10680-008-9173-7>
- Liefbroer, A. C., Merz, E.-M., and Testa, M. R. (2014). Fertility-related norms across Europe: A multi-level analysis. In *Reproductive decision-making in a macro-micro perspective* (pp. 141–163). Springer. https://doi.org/10.1007/978-94-017-9401-5_6
- Marini, M. M. (1984). Age and sequencing norms in the transition to adulthood. *Social Forces*, 63(1), 229–244. <https://doi.org/10.1093/sf/63.1.229>
- Martin, L. J. (2017). Pushing for the perfect time: Social and biological fertility. *Women's Studies International Forum*, 62, 91–98. <https://doi.org/10.1016/j.wsif.2017.04.004>
- Miller, W. B. (1994). Childbearing motivations, desires, and intentions: A theoretical framework. *Genetic, Social, and General Psychology Monographs*, 120(2), 223–258. <https://psycnet.apa.org/record/1994-40830-001>
- Miller, W. B. (2011). Differences between fertility desires and intentions: Implications for theory, research and policy. *Vienna Yearbook of Population Research*, 9, 75–98. <https://doi.org/10.1553/populationyearbook2011s75>
- Mills, M., Rindfuss, R. R., McDonald, P., Te Velde, E., and ESHRE Reproduction and Society Task Force. (2011). Why do people postpone parenthood? Reasons and social policy incentives. *Human Reproduction Update*, 17(6), 848–860. <https://doi.org/10.1093/humupd/dmr026>
- Morgan, S. P. (2001). Should fertility intentions inform fertility forecasts. In *Proceedings of US Census Bureau Conference 'The direction of fertility in the United States'* (pp. 153–178). US Census Bureau. <https://www2.census.gov/library/working-papers/2001/demographics/direction-of-fertility.pdf>
- Ní Bhrolcháin, M., and Beaujouan, É. (2011). Uncertainty in fertility intentions in Britain, 1979–2007. *Vienna Yearbook of Population Research*, 9, 99–129. <https://doi.org/10.1553/populationyearbook2011s99>

- Ní Bhrolcháin, M., Beaujouan, É., and Berrington, A. (2010). Stability and change in fertility intentions in Britain, 1991–2007. *Population Trends*, 141, 13–35. <https://doi.org/10.1057/pt.2010.19>
- OECD. (2024). *Society at a Glance 2024 - Country Notes: Germany*. https://www.oecd.org/en/publications/society-at-a-glance-2024-country-notes_fd5558c7-en/germany_9430770a-en.html
- Rybińska, A., and Morgan, S. P. (2019). Childless expectations and childlessness over the life course. *Social Forces*, 97(4), 1571–1602. <https://doi.org/10.1093/sf/soy098>
- Schmidt, L., Sobotka, T., Bentzen, J. G., and Andersen, A. N. (2012). Demographic and medical consequences of the postponement of parenthood. *Human Reproduction Update*, 18(1), 29–43. <https://doi.org/10.1093/humupd/dmr040>
- Settersten Jr, R. A., and Hägestad, G. O. (1996). What's the latest? Cultural age deadlines for family transitions. *The Gerontologist*, 36(2), 178–188. <https://doi.org/10.1093/geront/36.2.178>
- Settersten Jr, R. A., and Mayer, K. U. (1997). The measurement of age, age structuring, and the life course. *Annual Review of Sociology*, 23(1), 233–261. <https://doi.org/10.1146/annurev.soc.23.1.233>
- Slabá, J., Kocourková, J., and Šastná, A. (2024). The fertility timing gap: The intended and real timing of childbirth. *Journal of Biosocial Science*, 56(3), 504–517. <https://doi.org/10.1017/S002193202400004X>
- Sobotka, T., and Beaujouan, É. (2018). Late motherhood in low-fertility countries: Reproductive intentions, trends and consequences. *Preventing Age Related Fertility Loss*, 11–29. https://doi.org/10.1007/978-3-319-14857-1_2
- Sobotka, T., and Testa, M. R. (2008). Attitudes and intentions toward childlessness in Europe. *People, Population Change and Policies: Lessons from the Population Policy Acceptance Study Vol. 1: Family Change*, 177–211. https://doi.org/10.1007/978-1-4020-6609-2_9
- Sturm, N., Koops, J. C., and Rutigliano, R. (2023). The influence of partnership status on fertility intentions of childless women and men across European countries. *European Journal of Population*, 39(1), 20. <https://doi.org/10.1007/s10680-023-09664-5>
- Te Velde, E., Habbema, D., Leridon, H., and Eijkemans, M. (2012). The effect of postponement of first motherhood on permanent involuntary childlessness and total fertility rate in six European countries since the 1970s. *Human Reproduction*, 27(4), 1179–1183. <https://doi.org/10.1093/humrep/der455>
- Testa, M. R. (2012). *Family sizes in Europe: Evidence from the 2011 Eurobarometer survey*. (European Demographic Research Paper 2). Vienna Institute of Demography. https://www.oeaw.ac.at/fileadmin/subsites/Institute/VID/PDF/Publications/EDRP/edrp_2012_02.pdf
- Testa, M. R., and Toulemon, L. (2006). Family formation in France: Individual preferences and subsequent outcomes. *Vienna Yearbook of Population Research*, 41–75. <https://doi.org/10.1553/populationyearbook2006s41>
- Verweij, R., Mills, M., Snieder, H., and Stulp, G. (2020). Three facets of planning and postponement of parenthood in the Netherlands. *Demographic Research*, 43, 659–672. <https://doi.org/10.4054/DemRes.2020.43.23>
- Vignoli, D., Bazzani, G., Guetto, R., Minello, A., and Pirani, E. (2020). Uncertainty and narratives of the future: A theoretical framework for contemporary fertility. In *Analyzing contemporary fertility* (pp. 25–47). Springer. https://doi.org/10.1007/978-3-030-48519-1_3
- Vignoli, D., Guetto, R., Bazzani, G., Pirani, E., and Minello, A. (2020). A reflection on economic uncertainty and fertility in Europe: The narrative framework. *Genus*, 76(1), 28. <https://doi.org/10.1186/s41118-020-00094-3>
- Wagner, M., Huinink, J., and Liefbroer, A. C. (2019). Running out of time? Understanding the consequences of the biological clock for the dynamics of fertility intentions and union formation. *Demographic Research*, 40, 1–26. <https://doi.org/10.4054/DemRes.2019.40.1>