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Research Article

**The recent decline in women's fertility intentions
in Canada: The shift in the intention schedule and
the puzzle for family policy**

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The recent decline in women's fertility intentions in Canada: The shift in the intention schedule and the puzzle for family policy

Benoît Laplante¹

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Abstract

BACKGROUND

Fertility has been decreasing in Canada since the 2008 financial crisis, as it has elsewhere. A key question is whether fertility has fallen because people cannot have the children they want, or because they want fewer children.

OBJECTIVE

We address the change in fertility intentions of Canadian women over the recent decades.

METHODS

We use data from seven surveys conducted between 1990 and 2021. We use a 'pseudo-biographical' approach that focuses on the probability of intending to have a specific number of children over the life course conditional on parity and age, which allows showing that intentions have a schedule.

RESULTS

Intentions have fallen since 2011, and especially since 2017. This fall aligns with the decline in fertility rates. The mean lifetime child-number intentions are now below the replacement level. The decrease is most noticeable among young women, about half of whom now begin their reproductive years intending to remain childless. The schedule of intentions varies across educational levels: more-educated women intend to have children later.

CONCLUSIONS

The fertility intentions of Canadian women have decreased over the last 30 years. The main driver of the decrease seems to be the combined effect of decreasing intentions among childless women, and the increasing proportion of childless women in all age groups.

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CONTRIBUTION

Our results suggest that the decrease in fertility intentions is a likely cause of the recent decrease in fertility rates in Canada. This should inform the debate on family policies in a context where intentions are below replacement level.

1. Introduction

Since the financial crisis of 2008, fertility has been decreasing in Canada: between the onset of the crisis and 2023 the total fertility rate fell from 1.70 to 1.26 (Statistics Canada 2023). Canada was not alone in experiencing such a decline. A similar decrease occurred in the Nordic countries, which until recently were known for having comparatively high fertility among developed countries (Hellstrand et al. 2021). It happened in France too, but with a small lag: there the TFR decreased from 2.03 in 2010 to 1.68 in 2023.

The fall in fertility since the Great Recession has been linked to people's increasing uncertainty about their own future: Vignoli et al. (2020) provide a review and a synthesis of this line of research in demography. In Finland, the Nordic country where the decline has been the largest, and childlessness is high even within unions, despite generous family policies (Rotkirch and Miettinen 2017). Savelieva, Jokela, and Rotkirch (2023) find that uncertainty and lifestyle preferences have been the main reasons for postponing childbearing during this period. Reviewing the economic literature, Kearney and Levine (2025) conclude that the recent decline in fertility in high-income countries cannot be explained by conventional economic mechanisms, but that the evidence points to a broad reordering of adult priorities, with parenthood occupying a diminished role. This shift in priorities likely reflects "a complex mix of changing norms, evolving economic opportunities and constraints, and broader social and cultural forces".

The recent decline in fertility has also affected France, a country with a longstanding pronatalist tradition. Until recently, France had succeeded in maintaining fertility levels close to replacement through a combination of traditional measures such as birth allowances and benefits for large families, and modern policies, including free childcare and paid maternity leave. (Le Bras 1993; Pailhé, Rossier, and Toulemon 2008). The TFR by age 50 was 1.7 in 1994, rose to 2.0 in 2008, and remained at that level until 2013, before falling steadily to 1.6 in 2024. Breton, Florian, and Tomkinson (2025) show that this fall was mainly due to the decrease in the number of large families and the rise of childlessness, and posit that this is likely linked to the waning of social pressure to have children, which until recently was strong in France, and the growing lack of confidence in the welfare

state. Bouchet-Valat and Toulemon (2025: 1–2) relate this fall in fertility to the fall in intentions: “the decrease between 2005 and 2024 in the intended number of children [...] suggests that completed fertility will decline among the cohorts born after 1985, even if the gap between intentions and realization narrows”. They also find that both people who are ‘worried’ – especially about future generations’ prospects – and people who have an egalitarian conception of gender roles want fewer children.

For various reasons, fertility rates below the replacement level are a cause for concern among demographers and policymakers. Fertility intentions are also examined closely, as they provide an early indication of subsequent fertility behaviour. Much recent research on fertility intentions uses the replacement level as a reference point. Citing numbers from Testa (2012), Beaujouan and Berghammer (2019) write that: “While fertility rates are generally low in Europe, fertility intentions remain close to the replacement level. In 2011, across the 27 countries of the European Union, women in young adulthood (ages 15 to 24) intended to have, on average, 2.1 children.” Friedrich and Bujard (2025) provide more recent estimates of fertility intentions in 11 European countries. They do not group age in the same fashion as Testa (2012), they do not provide an average for the 11 countries they study, and they do not provide separate estimates for men and women. Among young people aged 18–29, the mean intended number of children ranges from 1.82 in Finland to 2.64 in Moldova. It is below 2.1 in 4 out of 11 countries – Germany, Austria, the Czech Republic, and Finland – and about 2.1 or larger in 7 countries, but it never reaches 3. This figure decreases with age. For the population aged 18–49, it reaches 2.1 in Estonia, Norway, and Moldova. It only exceeds 2.1 in Moldova. Whether these figures still allow stating that fertility intentions in Europe remain close to the replacement level is disputable. Fertility intentions are decreasing in the United States. Hays (2025) finds that in 2023, US women and men aged between 20 and 39 planned to have 1.8 children on average, down from 2.3 in 2012. The decrease was especially marked among young women: from 2.3 down to 1.5 for women aged 20–24, from 2.3 to 1.9 for women aged 25–29, and from 2.5 to 1.9 for women aged 30–34. Over the same period the proportion of women aged between 20 and 39 who already had a child or planned to have at least one decreased from 93% to 77%.

In this article, we investigate the change in fertility intentions of Canadian women over three decades using cross-sectional data from seven surveys conducted between 1990 and 2021. First, we estimate the intentions using proportions and means and compare them across surveys, as is commonly done to study the evolution of fertility intentions in a population over a period. Second, to better understand this change, we investigate the role of parity, age, and education, with a special focus on the change in their relationship with intentions over the period covered by the surveys. Conceptually, we try to approach fertility intentions from a life course perspective, despite using cross-

sectional data. Practically, rather than using the intended number of children as the dependent variable of a linear regression, we model the probability of intending to have a given number of children as a non-linear function of age conditional on parity. This can be seen as studying fertility intentions by mimicking the way fertility itself is studied, replacing behaviour with intentions and rates with probabilities.

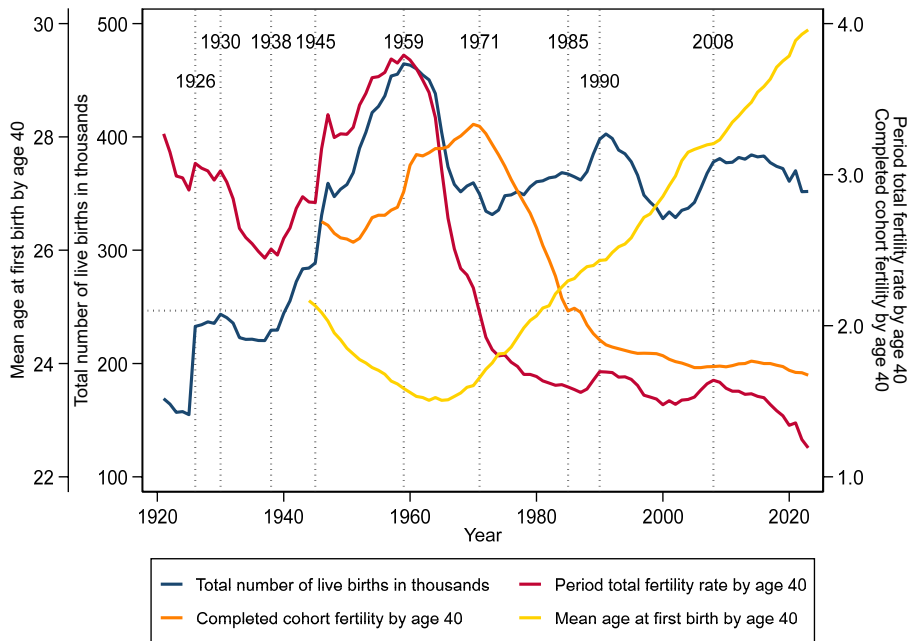
The background section of the article provides a historical overview of the evolution of fertility in Canada and an overview of fertility intentions from the life course perspective, introduces our adaptation of the life course perspective to the study of fertility intentions using cross-sectional data, and reviews previous research on fertility intentions in Canada. The next section introduces the surveys, data, and statistical model. The first part of the results section reports descriptive findings, the second the results from the use of our model. The last section combines the discussion and the conclusion.

2. Background

2.1 The evolution of Canadian fertility

Figure 1 depicts the evolution of Canadian fertility since the country has had reliable vital statistics. As in many other countries, fertility in Canada declined from the mid-19th century onwards. Indirect estimates suggest the crude birth rate fell from 45‰ in 1851 to 33‰ in 1921 (Henripin 1972). Reliable Canadian fertility data begins in 1926. At that time, the total fertility rate hovered above 3. It declined during the Great Depression, then rose steadily from 1938, peaking at 3.8 in 1959. This rise was mainly driven by federal policies: measures copied from the first US New Deal before World War II; the Veterans' Charter – acts and orders passed between 1942 and 1946 for the reintegration into civil life of Canadian veterans; economic modernisation programmes; and the creation of a welfare state from 1945 onwards, which included family allowances. Henripin (1972) shows that increased nuptiality, not higher fertility within marriage, explained the post-war baby boom.

Figure 1: Total number of live births (in thousands) and period total fertility rate by age 40, Canada, 1921–2023. Completed cohort fertility by age 40 and mean age at first birth by age 40, Canada, 1946–2023



Source: Human Fertility Database. Max Planck Institute for Demographic Research (Germany) and Vienna Institute of Demography (Austria). Available at www.humanfertility.org (data downloaded on 24 July 2025).

Note: The surge in the number of births and the TFR40 in 1926 is a technical artefact: Canadian vital statistics did not include information from the province of Quebec between 1921 and 1925, while Quebec accounted for close to a third of the country's population and had a higher TFR.

"Data on live births by age of the mother for the period 1928–1940 show some irregular pattern, which is further echoed in the age-specific fertility rates as well as in the cohort fertility data." (Houle and Kubisch 2025: 10).

We use the TFR, CCF, and mean age at first birth by age 40 to ensure comparability with Teng and Margolis (2024).

From 1959 onwards, fertility declined sharply, falling below the replacement level of 2.1 in 1971 and reaching 1.6 in 1987. The mean age at first birth dropped from 25.1 in 1944 to 23.3 in 1963, then rose steadily to 29.9 by 2023. The cohort born in 1930 had the highest completed fertility, 3.3, while the last cohort to reach the replacement level was born in 1946. Unlike earlier fluctuations, this decline was not tied to economic cycles or policies. Instead, as in the many high-income countries where it occurred, this decline can be seen as a new stage in Davis's (1937) "ripening incongruity", driven by changing

values and norms – a hallmark of the Second Demographic Transition (van de Kaa 1987; Lesthaeghe 2010). The massification and democratisation of post-secondary education, along with the tertiarisation of the economy, encouraged women to enter the labour force, thereby intensifying the tension between their dual roles (Myrdal and Klein 1968). As prosperity and education increased, people prioritised self-actualisation in the sense of Maslow (1943), leading to delayed and reduced childbearing (van de Kaa 2001).

This shift was institutionalised in Canada through legal reforms: the decriminalisation of contraception and homosexuality (1969); a liberalised divorce law (1969); and partial abortion access (1971), culminating in full-abortion rights (1988) and same-sex marriage (2005). These changes reflected a broader decoupling of sex and reproduction.

English Canada largely avoided explicit pronatalist policies. Family allowances and maternity leave – introduced in 1971 – aimed to support families but had little impact on fertility. More recent programmes like the Canada Child Benefit (2016) and Universal Child Care Benefit (2015) successfully reduced poverty and increased maternal employment (Baker, Messacar, and Stabile 2023) but did not raise fertility.

Things were different in Quebec, where integrating immigrants into a tiny Francophone society is a challenge: increasing fertility soon became a legitimate social goal. Birth premiums introduced in 1988 had limited success and were discontinued. A more comprehensive approach began in the mid-1990s, inspired by Nordic models: financial support reforms, subsidised daycare, and, since 2006, generous paid parental leave. While daycare boosted women's employment (Lefebvre and Merrigan 2008), only parental leave increased fertility, notably among highly educated women (Laplane 2024). Quebec's TFR rose from 1.54 in 2005 to 1.73 in 2008, and though it declined afterward, it remained consistently higher than Ontario's.

Between 1987 and 2008, Canada's TFR stabilised around 1.6, fluctuating with the economic cycle. It declined again after the 2008 Great Recession, a trend that continued unaltered after the end of the recession. This recent fall seems to mark a third stage in Davis's "ripening incongruity", driven, like the second stage, by values rather than economic factors.

Similar declines occurred in other high-income countries – notably the Nordic states – despite robust family policies. Hellstrand et al. (2021) find that the drop was not due to postponement but to fewer children and rising childlessness. In Canada, Teng and Margolis (2024) observe similar trends but hesitate to predict declining completed cohort fertility. Provencher and Galbraith (2024), however, conclude that younger cohorts are likely to complete fertility at lower levels than previous generations.

Thus, viewed through a theoretical lens, the evolution of Canadian fertility since the mid-19th century can be conceptualised as the sequential deepening of a structural disequilibrium between reproductive behaviour and the broader organisation of social

life, the process Davis described as “a ripening incongruity” and a trajectory whose major inflections were only altered when confronted with state interventions of exceptional magnitude.

2.2 Fertility intentions and the life course

Thomson (2015) begins her review of the literature on the topic by stating that ‘fertility intentions’ refers to the intention of having a child or one more child at the time the question is asked, and to the total number of children people intend to have over their life course. Fertility intentions belong to a series of related concepts and measures commonly referred to as ‘family size preferences’. Drawing on several authors, she distinguishes between family size ideal, desires, expectations, and intentions. With some simplification, ideal family size is “the number of children one sees the best for a family within one’s society; desired family size is the number of children one would have if there were no subjective or economic problems involved in regulating fertility” (Thomson 2015: 805), and family size expectations incorporate both family size desires and perceptions of the likelihood that desires can be translated into outcomes. Fertility intentions are conceptually very close to expectations, “but expectations incorporate a greater degree of uncertainty, especially with respect to changes in desires and circumstances and degree of fertility control” (Thomson 2015: 805). Thus, when interested in understanding fertility, it makes more sense to study intentions, which relate to the individual or the couple, rather than the ideal family size, which relates to the population or society and reflects the normative context within which fertility intentions are formed and expressed (Hagewen and Morgan 2005). From that perspective, intentions can be integrated into a logical sequence that goes from desire to behaviour and thus are closely related to actual fertility.

Developing this idea and using Ajzen’s theory of planned behaviour, Miller (1994, 2011) built a theoretical model of fertility in which many of the concepts and measures of family size preferences are related in a logical sequence. In this model, motivations are translated into desires, desires into intentions, intentions into behaviour, and behaviour into outcomes. The model includes two forms of intentions: childbearing intentions and child-number intentions. These two forms of intentions are collected by two questions that many surveys use: ‘Do you intend to have a (or another) child?’ and ‘If yes, how many more children do you intend to have?’

As Morgan and Hagewen (2005: 238) stress, this pair of questions is grounded in “the inherent, sequential nature of fertility decisions”. The answer to each one depends on the number of children the respondent has already given birth to when they are asked the questions. These two measures of fertility intentions belong to a logical sequence in

the sense of Miller, but also to the sequence of events in the life course. Thus, child-number intentions are a measure of intended completed fertility.

Few studies have used Miller's model, but several, especially studies conducted using panel data, have investigated the relation between fertility intentions and behaviour from a life course perspective. Using such data and perspective, Schoen et al. (1999: 798, 799) found that "intentions to have or not have a child or another child and the certainty of those intentions for future childbearing are strongly and consistently related to future fertility behavior" and that "fertility is a purposive behavior that is based on intentions, integrated into the life course, and modified when unexpected developments occur." Comparing achieved fertility in 2000 with intentions in 1982, Quesnel-Vallée and Morgan (2003: 497) found that "consistent with life-course arguments, those unmarried in 1982, childless in 1982, and (for women) still in school in 1982" were most likely to have fewer children in 2000 than they had intended in 1982.

Other studies using panel data have investigated the stability of fertility intentions over the life course. Using West German panel data, Heiland, Prskawetz, and Sanderson (2008) find considerable variation in total desired fertility across interviews: as much as half the individuals reported a different total desired number of children across survey waves. Examining the influence of background factors on total desired fertility, such as growing up with both parents, sibship size, and being Catholic, they find it to be strong early in life but weakening as subsequent life course experiences, including childbearing, take effect. Liefbroer (2009) find similar results using Dutch panel data. Family size intentions are not necessarily stable but rather are adjusted, mostly downwards, as people age. That said, some people do not adjust their intentions, or even adjust them upwards: much of the difference in age patterns is explained by life course events typical for young adults, such as changes in partnership and educational and occupational careers, and by the timing of the fertility career itself: postponing having children until their 30s increases the likelihood of adjusting intentions downwards. Hayford (2009) finds similar results in the United States: factors related to family formation, such as marriage and whether a woman has a child at an early age, are the most consistent correlates of patterns of change in expected family size.

Using a theoretical rather than empirical perspective, Bachrach and Morgan (2013) introduce a conceptual three-stage cognitive model of the development of fertility intentions over the life course, in which intentions begin by being a very general schema derived from the conditions of childhood and are progressively shaped into mental models of the self and the self-to-be during adolescence before developing into conscious intentions. This conception broadens the notion of the life course beyond a formal sequence of states and events by framing fertility intentions as the outcome of a dynamic and evolving cognitive process. Rather than being fixed early in adulthood, intentions are understood to vary with age, to be shaped by experiences and mental constructs that

originate in childhood, and to continue to develop through life events. Fertility intentions are thus assumed to change from childhood through early adulthood and beyond.

Ravanera and Beaujot (2014) focus on childlessness among men, but they suggest a broad mechanism that links fertility outcomes to changes in fertility intentions across cohorts and over the individual life course. As they see it, childlessness and its increase across cohorts are not necessarily a deliberate choice, but the result of a waiting game in a changing family context. Longer stays in school, later entry into the labour force, and starting marital relations at older ages contribute to delays in becoming a father. These delays occur as the reduced normative pressure to have children makes more probable the downward adjustment of intentions, both over the individual life course and across successive cohorts. The waiting game does not necessarily lead to childlessness, but combined with changing social norms it explains changing fertility intentions over the individual life course and across cohorts.

Ní Bhrolcháin and Beaujouan (2018) take stock of the literature on fertility intention formation and stability, notably Bachrach and Morgan (2013), and propose a theoretical perspective to integrate its core findings: “people often do not have well-defined, stable and coherent preferences and intentions from early in life and are not consistent in carrying through those they report in surveys” (Ní Bhrolcháin and Beaujouan 2018: 47). The constructive preference approach they propose allows explaining the variation in intentions and preferences over the life course as a process driven by the reduction in uncertainty as people grow older and as the context of each individual’s life course – formation of partnerships and actual births – settles down. The desired family size is not a goal but a discovery and, at least to some extent, effective preferences that govern actual childbearing follow intentions rather than determine them.

The three theoretical approaches complement each other, as the first is based on cognitive processes, while the second and the third deal with deliberate inaction or postponement as a strategic response to uncertainty or lack of immediate incentives. We will rely on all three in our analysis.

2.3 Fertility intentions from a life course perspective using cross-sectional data

In this article, we are interested in the evolution of fertility intentions over time among Canadian women. The only available data are cross-sectional: a series of surveys using the two standard questions conducted roughly every five years between 1990 and 2021. Thus, these surveys provide consistent information on child-number intentions, and this is the measure of fertility intentions we use. Without panel data, neither the stability of fertility intentions over the life course nor their translation into actual fertility behaviour can be investigated. Thus, the first step is to use the available information to assess

whether intentions among Canadian women have decreased overall during the past three decades.

After studying the variation of fertility intentions over this period, we undertake a more refined analysis of the cross-sectional data. The life course approach shows that the two main drivers of the change in fertility intentions are age and life events, primarily childbirth. If this is true, fertility intentions should vary according to age and parity in a cross-sectional sample of the population. Furthermore, if intentions vary over a period of several decades, such as the one our data allow studying, the relationship between child-number intentions with age on the one hand, and with parity on the other, may also vary over that period. Thus, we investigate the variation in intentions across the period not just by comparing average intentions, but also by examining the changes in the relation between intentions and these key elements of the life course – age and parity – across the same time period.

The core of our approach lies in examining how child-number intentions vary with age, much in the same way period fertility is measured with the total fertility rate using a synthetic cohort, the essential difference being that age-specific fertility rates are ‘conceptually’ replaced with the age-specific probability of intending to have a given number of children. The result is akin to an age schedule not of fertility itself but of intentions, the probability of intending to have a given number of children – none, one, two, at least three – increasing or decreasing over age in a non-linear fashion. Given that intentions are prone to be adjusted after each birth, the focus is placed on parity-specific schedules. We detail the implementation of the approach in section 4.2.

2.4 Fertility intentions in Canada

Fertility intentions are regularly studied in Europe (Goldstein, Lutz, and Testa 2003; Balbo, Billari, and Mills 2012; Testa 2012; Sobotka and Beaujouan 2014; Fahlén and Oláh 2018; Friedrich and Bujard 2025) and the United States (Bongaarts 2001; Hagewen and Morgan 2005; McQuillan et al. 2015; Ray et al. 2018; Rybińska 2021; Hays 2025), and recent research shows that they have fallen since the 2008 crisis (Hartnett and Gemmill 2020; Golovina et al. 2024). There has been little research into fertility intentions in Canada. Qualitative studies have been carried out in Quebec on the desire to have children and the extent to which this desire is fulfilled (Lemieux and Bernier 1993; Dandurand et al. 1997; Charton 2009; Grégoire 2014). A few quantitative studies have been conducted in Quebec since the 1970s; the most recent dates from 2017 (Pacaut and Migneault 2017). There are a few studies on Canada as a whole (Dupuis 1998; Beaujot and Muhammad 2006; Fostik and Galbraith 2021). Only one, Edmonston, Lee, and Wu (2010), addresses the ‘historical’ change in intentions. It compares intentions

measured in 1990, 1995, 2001, and 2006, i.e., before the 2008 crisis. The authors focus on the desired number of children rather than the intention to have one more child. They find a slight fall between 1990 and 2006. Breaking down this difference shows that the fall is due to changes in the composition of the population rather than to a changing relationship between population characteristics and intentions.

3. Objective

The objective of the article is to assess the change in the fertility intentions of Canadian women between 1990 and 2021. We go further than simply reporting intentions at different years over the period by using a life-course-like perspective to investigate changes in the relation between (a) fertility intentions and age and (b) fertility intentions and parity. We do not proceed from specific hypotheses but from the premise that the life course perspective will prove informative even when used with cross-sectional data.

4. Method

4.1 Data and variables

We use data from the six cycles of Statistics Canada's General Social Survey (GSS) that focused on the family: 1990, 1995, 2001, 2006, 2011, and 2017. The GSS collects information from people aged 15 and over in the ten provinces of Canada, excluding full-time residents of institutions (Statistics Canada 2019: 5). Each of these six surveys contains at least two questions on fertility intentions as well as information on socio-demographic characteristics generally associated with their variation. All samples are cross-sectional and probabilistic. From each survey, we use the subsample of women of childbearing age at the time of the survey. For 2021, we use the data from cycle 4 of the Canadian Social Survey (CSS), whose sampling design is similar to that of the GSS.

The questionnaire used in each of the six cycles of the GSS on family and that of the 2021 CSS includes variations on the two questions commonly used to measure fertility intentions: 'Do you intend to have a (or another) child?' and 'If yes, how many more children do you intend to have?' We combine the information from the second question with that on parity into a four-category measure of child-number intentions – none, one, two, and at least three – that we use as our dependent variable. We use the exact number of intended children for some descriptive statistics.

Although the focus of the article is on the relation between fertility intentions and age and parity, we also investigate the effect of some factors commonly associated with

fertility intentions, most of which were studied in Edmonston, Lee, and Wu (2010): the region in which the woman lives, her conjugal status, her labour force status, her religious beliefs, the language she speaks at home, her place of birth, the type of area in which she lives, and her educational level, as measured at the time of the survey. Some of these variables – especially region and language – are of special relevance in the Canadian context. Given that, unlike the six GSS, the 2021 CSS did not collect most of these variables, we do not use the 2021 data when assessing the effect of the factors commonly associated with fertility intentions. Other variables commonly associated with fertility intentions, such as the number of siblings or having spent their childhood with both parents, were not collected in all the cycles of the GSS, while others, notably the partner's fertility preferences, were never collected; these variables could thus not be included in our analyses.

4.2 Model

We model the probability of a given answer – the lifetime child-number intentions – using multinomial logistic regression. The dependent variable of the equation is the natural logarithm of the ratio of the probability of a given answer to the probability of the answer chosen as the reference category, which, in all our equations, is intending to have two children. When studying the intention to have at least three children among mothers of two, the model becomes an ordinary logistic regression. Following Nelder and Wedderburn (1972) and McCullagh and Nelder (1989), the basic equation can be written as

$$\ln \left[\frac{P(Y = k)}{P(Y = 0)} \right] = \alpha_k + \mathbf{x}\boldsymbol{\gamma}_k, \quad (1)$$

where k is the value associated with any of the possible values of Y except the reference value, which is associated with 0; α_k is the intercept of the equation for value k of Y ; $\mathbf{x}$ is the vector of the independent variables; and $\boldsymbol{\gamma}_k$ is the vector of the coefficients associated with the independent variables for value k . As in all logistic regression models, the predicted probability is the parameter of the Bernoulli statistical distribution of the process that is assumed to generate value k of Y .

Our analyses use three specifications of Equation 1. When focusing on the shape of the variation in intentions over age, we use Equation 2,

$$\ln \left[\frac{P(Y = k)}{P(Y = 0)} \right] = \alpha_k + \beta_{1k}A + \beta_{2k}A^2, \quad (2)$$

where α_k is the same as in Equation 1, A is the age of the woman at the time of the survey, and β_{1k} and β_{2k} are the coefficients associated with the two terms of the quadratic relation between age and value k .

When focusing on the effects of independent variables on intentions net of that of age, we use Equation 3,

$$\ln \left[\frac{P(Y = k)}{P(Y = 0)} \right] = \alpha_k + \beta_{1k}A + \beta_{2k}A^2 + \mathbf{x}\boldsymbol{\gamma}_k, \quad (3)$$

where α_k , $\mathbf{x}$ and $\boldsymbol{\gamma}_k$ are the same as in Equation 1 and A , β_{1k} and β_{2k} are the same as in Equation 2.

Finally, when focusing on the differences across educational levels in the shape of the variation of intentions over age, we use Equation 4,

$$\ln \left[\frac{P(Y = k)}{P(Y = 0)} \right] = \alpha_{ik}E_i + \beta_{1ik}E_iA + \beta_{2ik}E_iA^2, \quad (4)$$

where A is the same as in Equations 2 and 3, E_i is the level of education of the woman, α_{ik} is the intercept of the quadratic relation between age and value k for educational level i , and β_{1ik} and β_{2ik} are the coefficients associated with the two other terms of the quadratic relation between age and value k for educational level i .

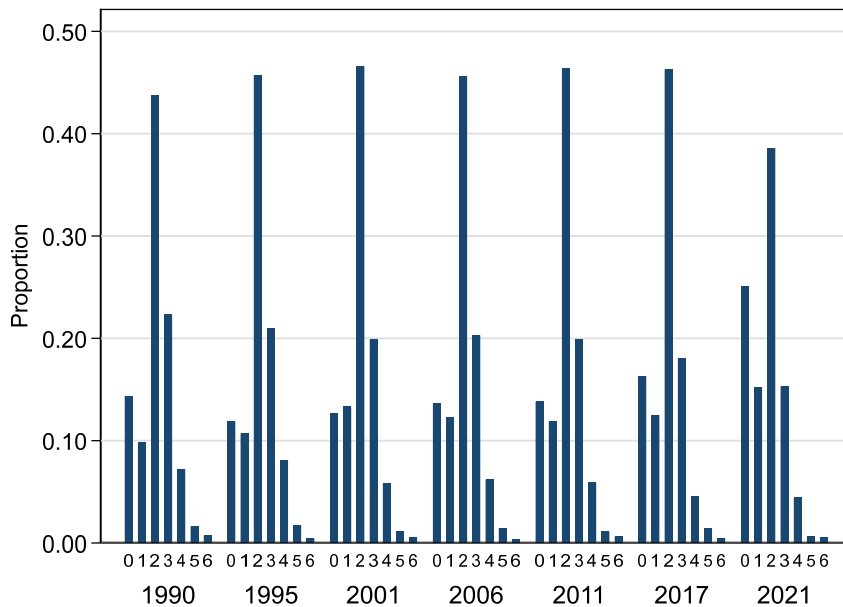
All data processing was carried out using Stata 18.

5. Results

5.1 Descriptive findings

Figure 2 presents lifetime fertility intentions among Canadian women across seven surveys, combining the number of existing children with the number of further intended children. Over time, intentions have shifted markedly. The proportion of women intending to remain childless increased significantly in 2017 and again in 2021, reaching nearly 25%. Intentions to have only one child also rose, while those to have two or more children declined. Although two children remained the modal intention throughout, its prevalence fell below 40% for the first time in 2021. Intentions to have three or four children declined steadily, particularly after 2011.

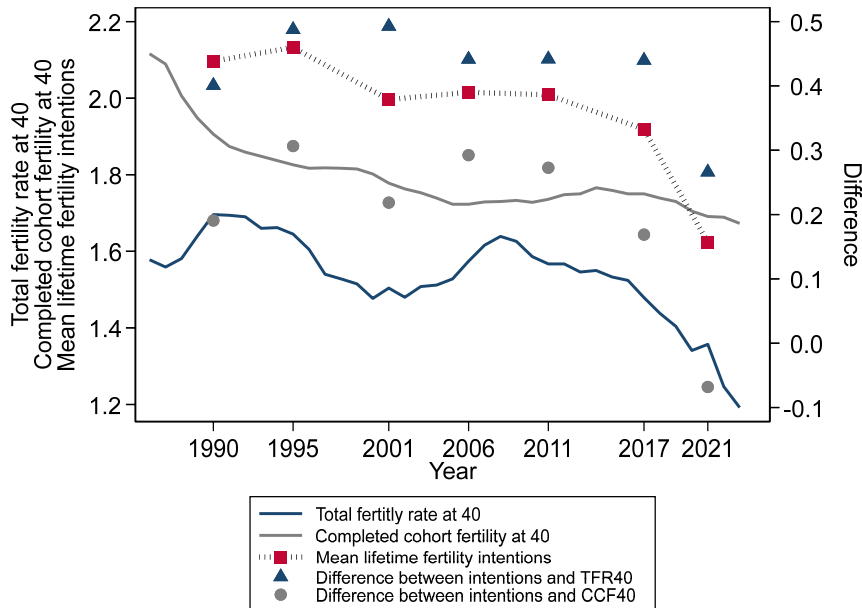
Figure 2: Lifetime child-number intentions of women, Canada, selected years, 1990–2021. Weighted estimation



Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Figure 3 compares fertility intentions and actual fertility outcomes, including the total fertility rate, completed cohort fertility, and mean lifetime intentions. Intentions consistently exceed realised fertility, though the gap varies. From 1990 to 2011, intentions remain slightly above 2.0 despite fluctuations in the TFR. The gap was particularly wide in 1995 and 2001, when fertility was low, but intentions remained stable. Since 2011, both fertility and intentions have declined, with 2021 intentions falling below the completed fertility of the 1981 cohort.

Figure 3: Total fertility rate at 40, Canada, 1986–2023. Completed cohort fertility at 40, Canada, 1986–2023. Mean lifetime fertility intentions, selected years, 1990–2021. Difference between the mean lifetime fertility intentions and the TFR40 and CCF40 respectively



Source: Human Fertility Database. Max Planck Institute for Demographic Research (Germany) and Vienna Institute of Demography (Austria). Available at www.humanfertility.org (data downloaded on 24 July 2025). Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Table 1 details parity distributions and intentions by parity among women aged 15–49. Childlessness rose steadily, surpassing 50% in 2017 and remaining high in 2021. The proportion of mothers with one child remained stable at around 15%, while those with two or more children declined. Intentions to remain childless or have only one child increased, while intentions for two or more children decreased. Among childless women, the intention to remain childless rose from 33% in 2017 to 49% in 2021. Intentions for two children dropped from over 40% to 27%, and those for three or more fell to 13%.

Table 1: Parity by year of survey, proportions. Child-number intentions, all women and by parity, by year of survey, proportions. Mean child-number intentions by parity and year of survey. Women aged 15–49. Weighted estimation

	Parity						
	1990	1995	2001	2006	2011	2017	2021
None	0.445	0.409	0.425	0.462	0.456	0.500	0.513
One child	0.144	0.151	0.163	0.156	0.154	0.145	0.154
Two children	0.249	0.270	0.263	0.242	0.254	0.233	0.232
At least three children	0.162	0.170	0.149	0.139	0.136	0.123	0.101
Child-number intentions, all women							
	1990	1995	2001	2006	2011	2017	2021
None	0.143	0.119	0.127	0.136	0.138	0.163	0.251
One child	0.098	0.107	0.133	0.123	0.119	0.125	0.152
Two children	0.437	0.457	0.466	0.456	0.464	0.463	0.386
At least three children	0.322	0.318	0.274	0.285	0.279	0.249	0.211
Child-number intentions, childless women							
	1990	1995	2001	2006	2011	2017	2021
None	0.322	0.291	0.299	0.294	0.302	0.326	0.490
One child	0.044	0.072	0.062	0.054	0.060	0.079	0.105
Two children	0.365	0.411	0.429	0.417	0.419	0.425	0.272
At least three children	0.269	0.226	0.210	0.236	0.218	0.169	0.133
Child-number intentions, women who have one child							
	1990	1995	2001	2006	2011	2017	2021
One child	0.545	0.512	0.651	0.629	0.597	0.592	0.638
Two children	0.292	0.316	0.213	0.235	0.260	0.282	0.260
At least three children	0.163	0.172	0.136	0.137	0.144	0.126	0.103
Child-number intentions, women who have two children							
	1990	1995	2001	2006	2011	2017	2021
Two children	0.933	0.892	0.945	0.937	0.918	0.901	0.889
At least three children	0.067	0.108	0.055	0.063	0.082	0.099	0.111
Mean child-number intentions of women by parity with 95% confidence interval							
	1990	1995	2001	2006	2011	2017	2021
None	1.688 [1.611, 1.766]	1.691 [1.599, 1.782]	1.619 [1.567, 1.671]	1.689 [1.632, 1.746]	1.644 [1.572, 1.716]	1.492 [1.422, 1.561]	1.101 [0.992, 1.210]
One child	1.656 [1.586, 1.727]	1.704 [1.622, 1.787]	1.531 [1.475, 1.586]	1.555 [1.486, 1.624]	1.582 [1.515, 1.650]	1.591 [1.511, 1.670]	1.497 [1.405, 1.589]
Two children	2.093 [2.070, 2.116]	2.156 [2.120, 2.191]	2.075 [2.060, 2.091]	2.082 [2.064, 2.099]	2.099 [2.077, 2.122]	2.144 [2.102, 2.187]	2.157 [2.112, 2.202]

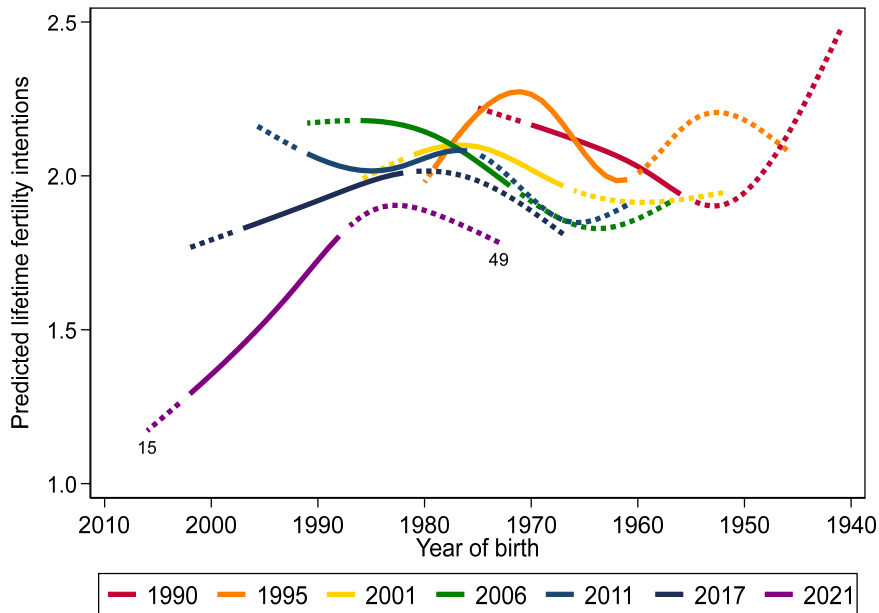
Among mothers of one child, the intention to stop at one fluctuated between 51% and 65% without a clear trend. Intentions to have two children hovered between 21% and 29%, while those for three or more declined from 16% in 1990 to 10% in 2021, with the drop occurring after 2011. For mothers of two, intentions to have a third child decreased from 1990 to 2001, then rose slightly. The 1990 survey appears anomalous, with higher-than-expected childlessness intentions across all parity groups. This may reflect the economic recession of the time, which likely influenced reproductive planning, as suggested by previous research (Sobotka, Skirbekk, and Philipov 2011).

The average intended number of children also declined. Among childless women it fell from around 1.65 between 1990 and 2011 to 1.10 in 2021. Intentions among mothers of one remained stable, while those of mothers of two increased slightly from 2.07 in 2001 to 2.16 in 2021. These figures suggest that while intentions among mothers remain relatively stable, childless women are increasingly likely to intend having fewer children or none at all.

Figure 4 illustrates age-related variation in intentions using cubic spline regression. Each curve represents lifetime intentions as a function of age, with the solid portion highlighting women aged 20–34. Organising curves by birth year allows for a synthetic view of age and cohort effects. Older surveys show higher intentions among older women, likely reflecting cohort norms favouring larger families. By contrast, the 2017 and 2021 curves are lower across all ages, and intentions never reach two children. These recent curves show a rise in intentions with age followed by a decline, but without reaching previous levels.

Overall, the data reveal a clear shift in fertility intentions over time, with increasing childlessness and declining preferences for larger families. These trends reflect broader societal changes in family formation, economic conditions, and evolving norms around parenthood.

Figure 4: Lifetime fertility intentions according to year of birth among women aged 15–49 by survey, predicted from a regression in which the effect of age is modelled using a cubic spline



Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Note: Read from left to right, each curve represents the variation in lifetime fertility intentions according to age among women aged 15–49 in a given survey. The solid portion of each curve represents women aged 20–34.

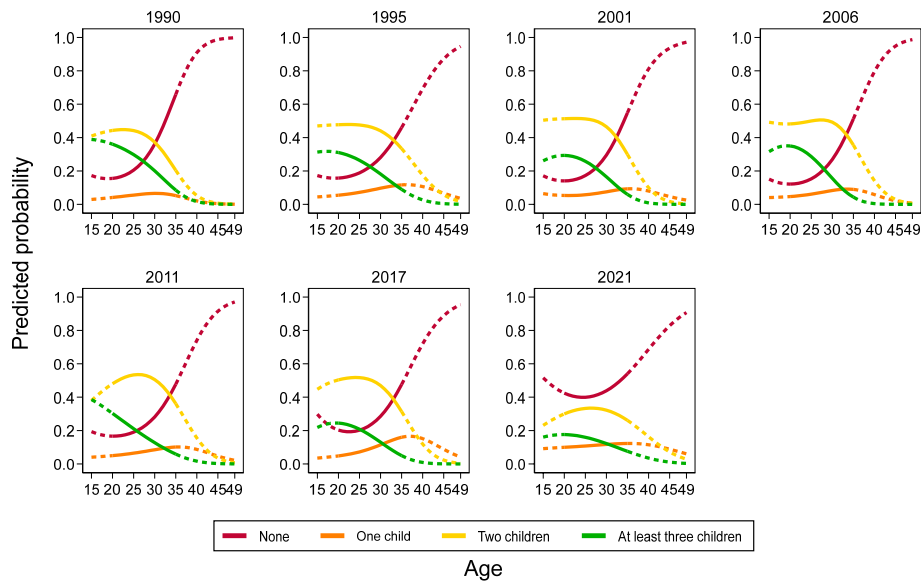
5.2 Models

5.2.1 The variation in intentions over age

Figures 5 to 7 present the predicted probabilities of intending to have a specific number of children, differentiated by parity: childless women, mothers of one, and mothers of two. These probabilities are derived from models based on Equation 2 and reflect both logical age-related trends and meaningful deviations. As expected, the likelihood of remaining at the current parity increases with age, while intentions to have additional children tend to decline. However, departures from these patterns offer valuable insights into changing fertility norms and preferences.

Figure 5 focuses on childless women. Across most surveys prior to 2021, the probability of intending to remain childless starts at approximately 0.20 at age 15, dips slightly around age 20, and then rises with age. In 2021, however, this probability begins at a markedly higher level, around 0.50, suggesting a significant shift in early-life fertility intentions. Intentions to have only one child remain consistently low, peaking after age 30, with the age of peak intention gradually increasing from 1990 to 2017. The intention to have two children, previously dominant, shows a notable decline in 2021, with probabilities barely exceeding 0.20 at age 15. Intentions to have three or more children follow a similar trajectory but at lower levels, with a marked drop in 2017 and 2021. These trends suggest a growing ambivalence or postponement of childbearing among younger cohorts.

Figure 5: Predicted probability of child-number intentions according to age by parity. Childless women. Women aged 15–49. Multinomial logistic regression. Weighted estimation



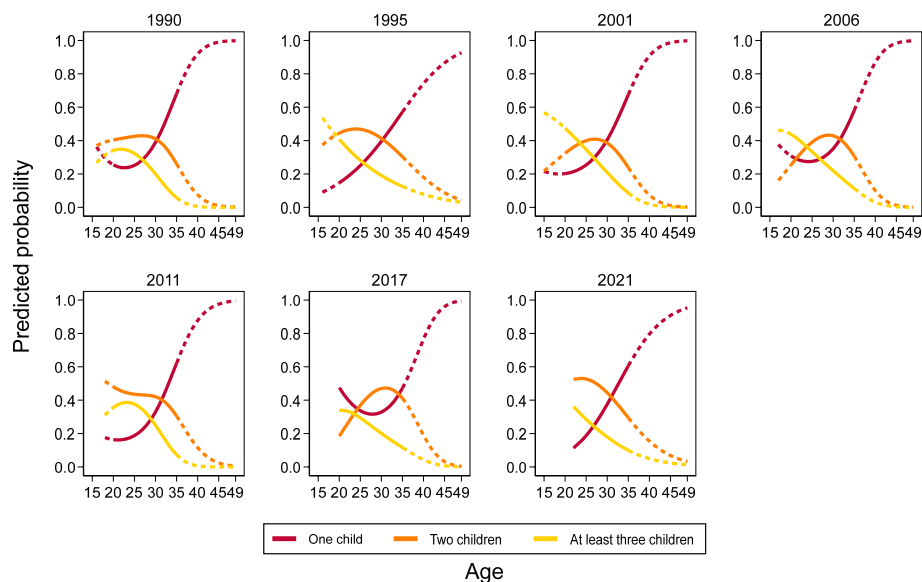
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Note: The solid portion of each curve represents women aged 20–34.

Figure 6 examines mothers of one child. The probability of intending to stop at one child varies across surveys, with no consistent pattern. In most years, the curve dips

before rising again, and the inflection point shifts to older ages over time. In 1995 and 2021 the increase is more linear. The intention to have two children becomes more concentrated around a peak that moves rightward until 2017, then shifts back in 2021. This reversal may reflect changing norms around the timing of second births. The probability of intending to have three or more children generally declines with age and shows a downward trend among younger mothers from 2006 onwards. The clearest pattern is the evolution of the intention to have two children: initially delayed, possibly due to rising age at first birth, but more recently peaking earlier, suggesting that women who have their first child young are more likely to intend a second.

Figure 6: Predicted probability of child-number intentions according to age by parity. Women who had 1 child. Women aged 15–49. Multinomial logistic regression. Weighted estimation



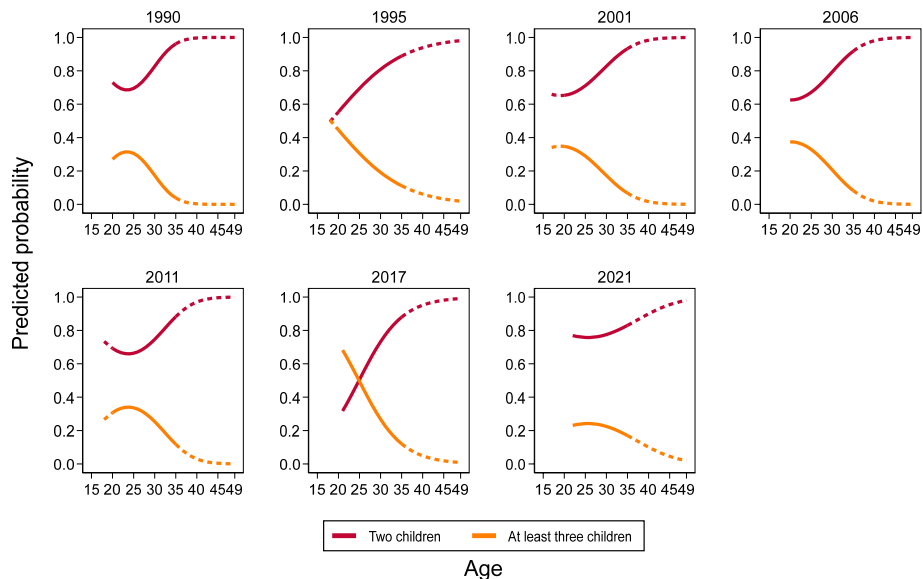
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Note: The solid portion of each curve represents women aged 20–34.

Figure 7 explores mothers of two children. Intentions to have three or more children remain relatively stable across surveys, though slightly lower in 2021. Among the youngest mothers of two – a highly selected group – the probability ranges between 0.25 and 0.40, sometimes increasing slightly before declining in the late twenties. The overall

stability of this curve contrasts with the declining proportion of women who have two children early, indicating that high fertility intentions may be increasingly concentrated among a smaller subgroup.

Figure 7: Predicted probability of child-number intentions according to age by parity. Women who had 2 children. Women aged 15–49. Multinomial logistic regression. Weighted estimation

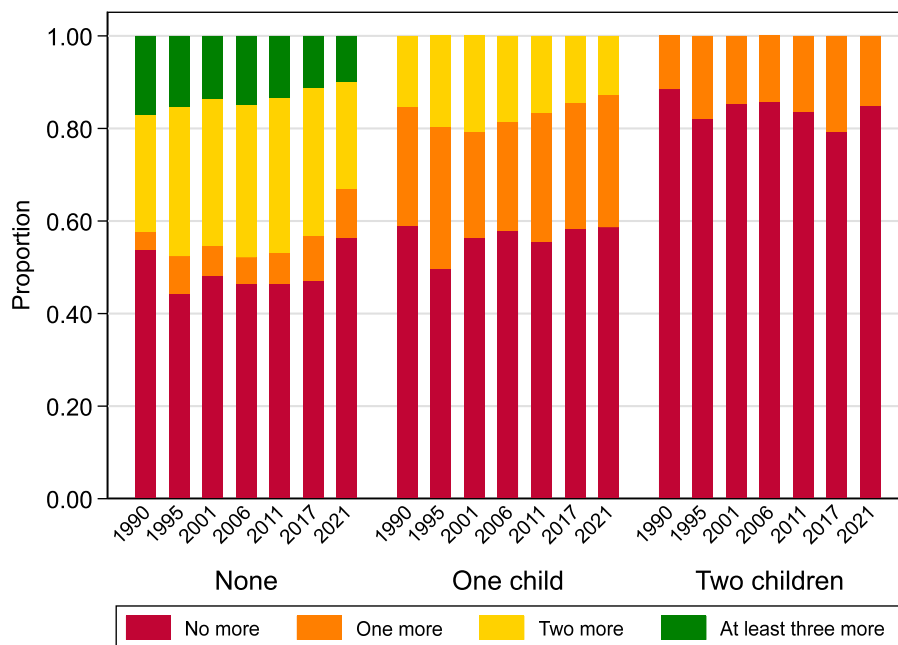


Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.

Note: The solid portion of each curve represents women aged 20–34.

Figure 8 synthesises these findings by showing the proportion of reproductive years spent intending to have a given number of children. Among childless women the time spent intending to remain childless increases in 2021, while intentions to have two or more children decline. Among mothers of one or two, patterns are less consistent, though intentions for larger families generally decrease. These shifts reflect broader societal changes in fertility preferences, timing, and perceived feasibility of family formation.

Figure 8: Proportion of the reproductive years spent intending to have a given number of children, by parity and survey. Women aged 15–49



Note: The proportions are computed using the integrals of the curves displayed in Figures 5–7.

5.2.2 Other factors affecting fertility intentions

Investigating the factors commonly associated with fertility intentions provides some insights but few real surprises. The results of the multivariate analyses are reported and discussed in Figure A-1 in Appendix 1. In this section we provide a brief overview of the results.

Unpartnered women tend to have lower fertility intentions than partnered women, and cohabiting mothers of two seem to be more prone to intend to have three children than married mothers. Fertility intentions increase with the importance given to religious beliefs. Out-of-the-labour-force childless women are more prone to intend to remain childless – which seems to be a rational reaction to the economic burden of raising children for someone who lacks resources – while out-of-the-labour-force mothers of two

are prone to intend to have three – which suggests that intending to have more than two children is still seen as hardly compatible with employment.

Childless immigrant women born in low-fertility countries appear to align their intentions with those of their country of birth. Likewise, immigrant mothers of two born in high-fertility countries seem to align their intentions with those of the country in which they were socialised: their probability of intending to have the third child is higher than that of Canada-born mothers of two. Whether this is related to the difference between the social and family policies of Canada and those of the country of birth remains to be studied.

The regional differences in fertility intentions follow the regional differences in fertility behaviour. Overall, intentions appear to be the lowest in the Atlantic provinces, somewhat higher in British Columbia, still higher in Ontario and in the Prairies, and the highest in Quebec. Research commonly relates Quebec's higher fertility in the last few decades to its family policies inspired by those of the Nordic countries and that of the Prairies to the prevalence of industrial jobs and traditional family roles (Beaujot and Wang 2010). Our results suggest that these factors might be related to intentions as well.

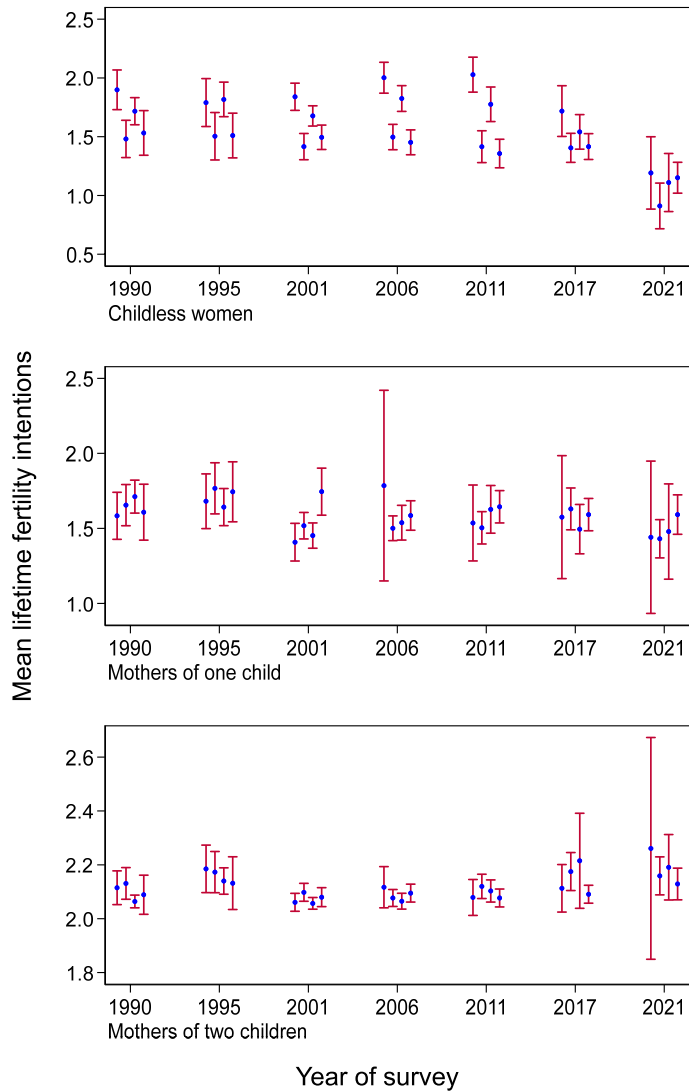
5.2.3 Education and the schedule of fertility intentions

Figure A-1 summarises differences in fertility intentions across educational levels and survey years. While a full account would be extensive, the general pattern suggests that among Canadian women, fertility intentions tend to increase with education. University-educated women are more likely to intend having at least three children when childless or with one child, whereas mothers of two with post-secondary diplomas show the highest intentions for larger families. However, this conclusion is not straightforward.

Figure 9 shows that university-educated women do not consistently express higher intentions than others, except in 2001 among mothers of one child. This finding also contradicts longstanding demographic evidence dating back to the 1941 Census, which documented that highly educated women tended to marry later and have fewer children (Charles 1948).

These results rely on a modelling assumption that the effect of education on fertility intentions is linear and proportional, as specified in Equation 3. This implies that education shifts the level of intentions vertically but does not affect their timing. Yet, if highly educated women tend to form intentions later in life, this assumption may obscure meaningful differences. To address this, Equation 4 allows the estimation of age-intention curves separately for each educational level, thereby relaxing the proportionality constraint and revealing more nuanced patterns.

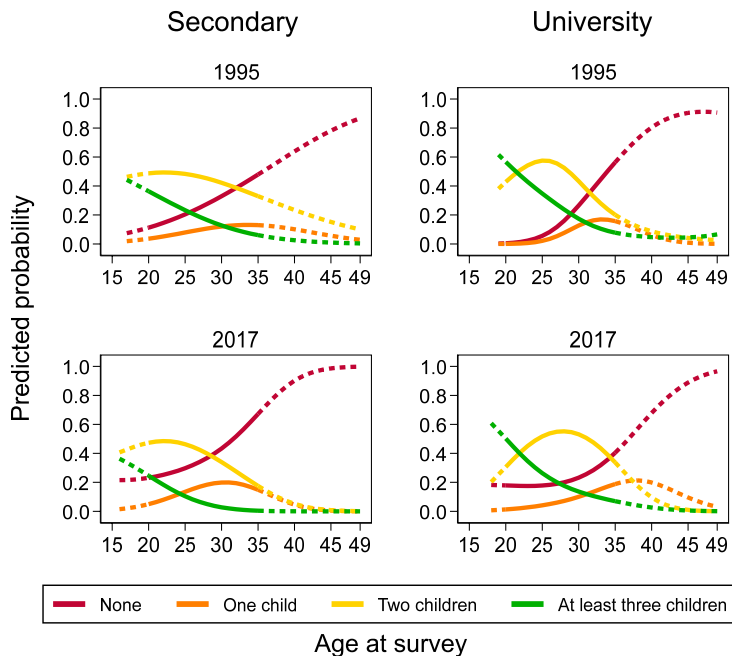
Figure 9: Mean lifetime fertility intentions of women aged 15–49, by educational level and survey. Weighted estimation



Note: Educational levels increase from left to right.

Figure 10 illustrates these differences by comparing childless women with secondary and university diplomas in 1995 and 2017. In 1995, university-educated women showed strong intentions for two or more children, with peaks in their mid-20s. By 2017, intentions to remain childless had risen, and the peaks for one or two children had shifted to later ages. Among women with secondary diplomas, intentions for larger families were more stable, though childlessness increased slightly. These shifts suggest that childlessness in early adulthood became more common, while intentions for one or two children became more concentrated around their respective peaks. Intentions for three or more children remained relatively stable across both groups and years, though they were already the least common in 1995.

Figure 10: Predicted probability of child-number intentions according to age by parity for selected levels of education. Childless women who have secondary or university education. Women aged 15–49. Multinomial logistic regression. Weighted estimation



Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2021.
 Note: The solid portion of each curve represents women aged 20–34.

The differences in the age schedule of intentions across educational levels – and their evolution over time – demonstrate that the relationship between age and fertility intentions must be modelled within educational strata. The apparent higher intentions among university-educated women are likely artefacts of model specification. In reality, less-educated women tend to form intentions earlier, contributing more to average age-specific patterns. Linear models, which only adjust curves vertically, fail to capture these shifts in timing.

In short, highly educated women do not necessarily have higher fertility intentions than their less-educated counterparts. Rather, they tend to form these intentions later in life. The differences reported in Figure A-1 are therefore misleading, as they conflate timing with intensity. This underscores the importance of modelling age-specific fertility intentions separately by educational level to avoid misinterpretation and to better understand the interplay between education and reproductive planning.

6. Discussion and conclusion

In this section, we summarise and discuss our results. For the sake of clarity, we organise it thematically rather than following the sections of the article.

In the population as a whole, mean intentions are always higher than fertility, but both have varied in the same way since 2001. Since then, there has been no obvious lag between them, which could suggest that intentions follow or herald fertility. This suggests that whatever drives fertility down nowadays also drives fertility intentions down, regardless of whether fertility adjusts to intentions or vice versa. Furthermore, the data from the most recent survey, especially as they are reported in Figures 2, 3, and 4, suggest that the norm or ideal of the two-child family might be waning.

Looking at child-number intentions among all women, the pattern is straightforward: from the beginning to the end of the period, more women intend to remain childless or to have a single child and less intend to have two or at least three children. The pattern is the same among childless women. Looking at intentions for higher order parities provides more insights. Among mothers of one child, intentions to remain so or to have the second child do not vary over the period; however, after 2011 these women become less prone to intend to have at least three. Mothers of two, probably an increasingly selected group, are the only women whose intentions increase over the period: after 2001, they become more prone to have at least three children.

Looking at the composition of the population by parity over the three decades covered by the surveys contextualises these results: from the beginning to the end of the period the proportions of childless women and of mothers of one child increase, while those of mothers of two or of at least three children decrease.

Our interest in the age schedule of fertility intentions involves looking at fertility intentions not only by parity but also in their variation over age and over age within parities. Our first glimpse at the variation in child-number intentions over age and across surveys shows that in 2017 and 2021, while mean lifetime fertility intentions followed the same pattern as in previous surveys, i.e., increasing with age before declining, they were at a markedly lower level than before: unlike in previous surveys, mean lifetime fertility intentions never reached 2. Looking at the variation of intentions with age within parity shows that they were not fixed early. On the contrary, they change over the life course and in the period we are studying they are basically postponed, with some qualifications.

From a life course perspective, recent findings suggest that motherhood, or even the prospect of it, is increasingly absent from the imagination of very young women. Historically, women were raised in large families and assumed caregiving roles early on. A few decades ago, adulthood was marked by milestones such as completing secondary education, entering the workforce, marrying, and having children – often by the early twenties. Today, however, young women prioritise other interests, and motherhood is postponed to an indefinite future. As Rotkirch (2025) notes, children no longer symbolise the onset of adulthood, but rather its culmination.

The shift in fertility intentions – from extremes such as childlessness or large families to more moderate aspirations for one or two children – may reflect life events not captured in surveys. Theoretical frameworks such as Bachrach and Morgan's (2013) schema model and Ní Bhrolcháin and Beaujouan's (2018) constructive preference theory offer insights into how intentions evolve from childhood ideals to conscious decisions. Ravenara and Beaujot (2014) further suggest that the 'waiting game' has become normalised as societal pressure to have children wanes.

Empirical data reveal differences in the age schedule of fertility intentions across educational levels and over time. While highly educated women do not necessarily intend to have more or fewer children than their less-educated counterparts, they tend to plan for later childbearing. This delayed fertility intention schedule, consistent with the 'waiting game' hypothesis, coincides with rising educational attainment among women. However, because biological fertility declines with age, the increasing proportion of highly educated women may face greater challenges in realising their reproductive goals.

Delaying the first birth may result in late childbearing or even foregoing parenthood, not due to solely social factors but also to biological constraints. Similar consequences apply to intentions for second or third children. Thus, the growing prevalence of late fertility intentions among highly educated women may contribute to declining period fertility through both tempo and quantum effects, ultimately leading to lower completed fertility.

Between 1990 and 2021, Canadian women's lifetime fertility intentions declined and their timing shifted. Today, many women do not intend to have children, and this trend appears to be the result of long-term societal changes rather than temporary economic conditions. Among young women, nearly half begin their reproductive years intending to remain childless. Although some revise their intentions between ages 15 and 20, the proportion maintaining childlessness intentions at age 20 has risen. Fertility intentions now form later and are more modest than in previous generations.

Given this delay and decline, it is difficult to foresee a reversal in fertility intentions among Canadian women. This trend has persisted despite increasingly family-friendly policies, including enhanced financial support and parental benefits. Modern family policy aims to support individuals in having the children they desire. If intentions remain below replacement level, demographers and policymakers must consider the broader implications for family policy. Davis's (1937) analysis of early 20th century fertility decline as a mismatch between the reproductive system and modern social organisation looks prophetic today, and his suggestion that reproduction might become a specialised occupation in a society structured around the division of labour is still provocative.

The Finnish government, which faces the lowest fertility and fertility intentions among Nordic countries, commissioned sociologist Anna Rotkirch to propose solutions. Her 2025 report outlines 20 measures aimed at countering postponement and promoting early family formation (Rotkirch 2025). These include educational reforms, financial incentives for early parenthood (having a child before age 30), fertility education, relationship counselling, and accessible fertility treatments. Arguably, her most thought-provoking proposal is the promotion of a planned parenthood approach to persuade young people to reconcile career aspirations with family formation. This strategy seeks to embed childbearing within a broader framework of life course planning. While less radical than Davis's proposition, such an approach may nonetheless be perceived as intrusive in a democratic society. Rotkirch's proposals are cutting edge policy for a society where fertility and fertility intentions are low. Whether such a policy will be implemented, whether it will be successful, and whether it will inspire other low-fertility countries remains to be seen.

Our study has limitations. Most are due to the data. The surveys we use gathered some retrospective biographical information, but they are cross-sectional rather than longitudinal, which prevents truly studying the change in fertility intentions over the life course. The surveys did not collect information on the partner's intentions. A few of the most recent surveys collected information on the intention to have a child in the next three years, but most did not, which, when interested in the changes across surveys, imposes studying lifetime intentions rather than short-term intentions. Other limitations result from our choices. We decided to focus on women's intentions: men's intentions

are worth studying but are beyond the scope of this article and could be addressed in further research.

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Appendix 1: Other factors commonly associated with fertility intentions

As we stated above, we investigated the effect of some factors commonly associated with fertility intentions beyond age and parity, most of which were studied in Edmonston, Lee, and Wu (2010). This was done using estimations based on equations in the form of Equation 3 – that is, in contrast to Equation 4, assuming that the quadratic effect of age does not vary across educational levels. The reference outcome is the intention to have two children. Results are reported in Figure A-1. The following presentation of the results goes into more detail than the overview we provide in the body text.

Region. Overall, intentions seem to be the lowest in the Atlantic provinces, somewhat higher in British Columbia, still higher in Ontario and in the Prairies, and the highest in Quebec.

Conjugal status. Unpartnered childless women have a higher probability of intending to remain childless than intending to have two children. Unpartnered mothers of one child have a higher probability of intending to have one child rather than two. We see no substantial differences between married and cohabiting women, except among mothers of two: among these, cohabiting women have a higher probability of intending to have at least three children than married women.

Labour force status. The probability of childless women who are out of the labour force intending to remain childless rather than intending to have two children is higher than that of active childless women. Out-of-the-labour-force mothers of two have a higher probability of intending to have at least three children than active mothers of two.

Religious beliefs. Among childless women, having religious beliefs decreases the probability of intending to remain childless rather than intending to have two children, and increases the probability of intending to have three children rather than two, regardless of the importance given to these beliefs. Giving them at least some importance further decreases the probability of intending to have one child rather than intending to have two. Among mothers of one child, having religious beliefs and giving them at least some importance reduces the probability of intending to have one child rather than two and increases that of intending to have at least three rather than two. Among mothers of two, having religious beliefs and giving them at least some importance increases the probability of intending to have at least three children.

Home language. Home language has no effect, except among mothers of two: among them, using only English at home increases the probability of intending to have at least three children.

Place of birth: Born in Canada or country of birth grouped by TFR. Among childless women, being born in a country where the TFR is below 1.3 rather than being born in Canada reduces the probability of intending to have three children rather than

two. Among mothers of two, being born in a country where the TFR is at least 2.1 increases the probability of intending to have at least three children.

Type of area. Among mothers of one child, living in a rural area rather than an urban one increases the probability of intending to have one child rather than two.

Estimating the equations separately for each cycle of the GSS shows that the effects of the independent variables vary somewhat across cycles and that the effects in the equation estimated with all cycles are close to those of 2006. These tables are not included in the article for the sake of brevity, but they are available upon request. That said, the variations across cycles do not lead to different interpretations.

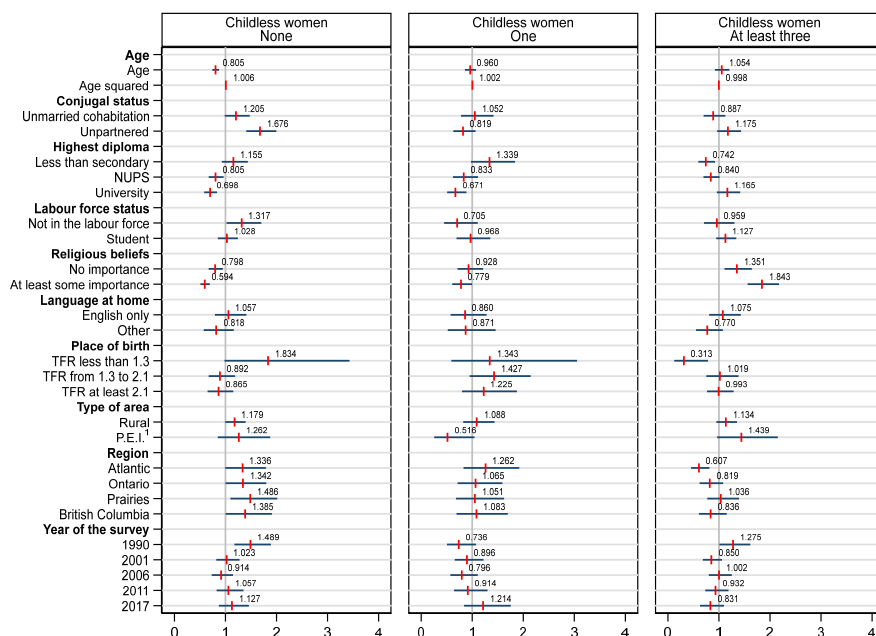
Period. Using the GSS cycle as a qualitative independent variable and 1995 as the reference category allows estimating the overall change in intentions across cycles, net of the effect of age and of the other independent variables. This is done assuming that the quadratic relation between age and intentions has the same shape across surveys, which we know is not exact but may still be informative.

In 1990, compared to women surveyed in 1995, childless women had a higher probability of intending to remain so and a higher probability of intending to have at least three children rather than two. Mothers of one had a higher probability of intending to have one child rather than two children. Mothers of two had a lower probability of intending to have at least three children rather than two.

In 2001, compared to women surveyed in 1995, mothers of one child had a higher probability of intending to have one child rather than two children. Mothers of two had a lower probability of intending to have at least three children. In 2006, again compared to women surveyed in 1995, mothers of one child had a higher probability of intending to remain with a single child rather than have a second one. Mothers of two children had a lower probability of intending to have at least three. In 2011, mothers of one had a higher probability of intending to have one child rather than two children. In 2017, mothers of two children had a higher probability of intending to have at least three.

Overall, if one accepts that intentions were abnormally low in 1990 because of the recession, fertility intentions appear to decrease from 1995 onwards, with one exception: compared to mothers of two in 1995, mothers of two surveyed in 2017 had a higher probability of intending to have at least three children rather than two.

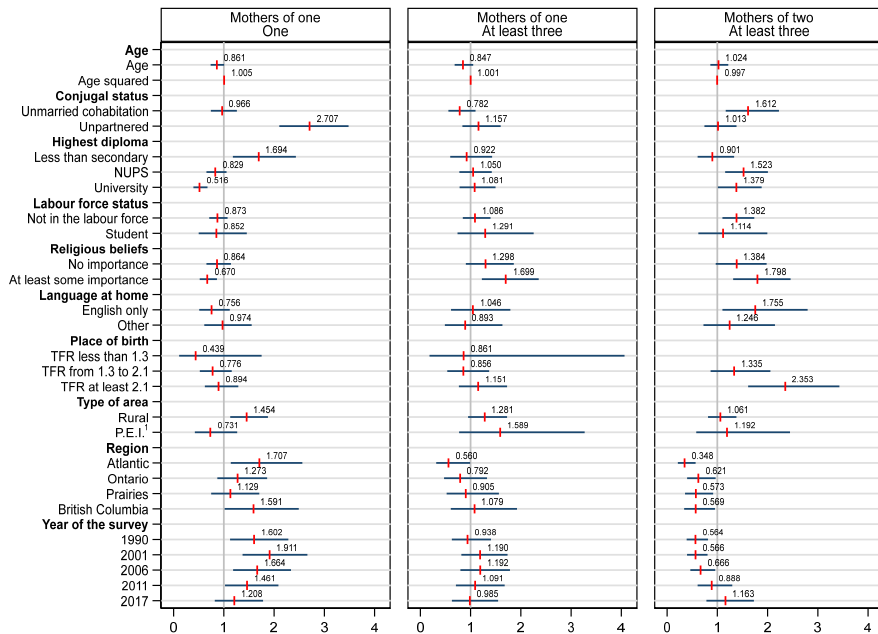
Figure A-1: Effect of selected independent variables on the probability of child-number intentions by parity. Women aged 15–49. Multinomial logistic regression where the intention to have 2 children is the omitted outcome. Coefficients and limits of their .95 confidence intervals in exponential form. Weighted estimation



Note: Reference categories: Conjugal status: Married; Highest diploma: Secondary; Labour force status: In the labour force; Religious beliefs: None; Language at home: French only; Place of birth: Canada; Type of area: Urban; Region: Quebec; Year of the survey: 1995.

¹ Prince Edward Island is the smallest of the Canadian provinces in terms of area and population. In official statistics it is not divided into urban and rural areas.

Figure A-1: (Continued)



Note: Reference categories: Conjugal status: Married; Highest diploma: Secondary; Labour force status: In the labour force; Religious beliefs: None; Language at home: French only; Place of birth: Canada; Type of area: Urban; Region: Quebec; Year of the survey: 1995.

¹ Prince Edward Island is the smallest of the Canadian provinces in terms of area and population. In official statistics it is not divided into urban and rural areas.

Appendix 2: The measurement of uncertainty in fertility intentions

In all the surveys we use except the 2021 survey, the information on the number of children the respondent intends to have over their lifetime comes from combining information from three questions: (1) How many children did you father or give birth to? (2) Do you intend to have a child or one more child at some time? and (3) What is the total number of children you intend to have over your lifetime? The last question was only asked to those who answered 'yes' to the second question. Thus, the total number of intended children over a lifetime is the answer to the first question for those who answered 'no' to the second question, and the answer to the third question for those who answered 'yes' to the second question.

There was no direct measure of uncertainty before the 2017 survey, but there was an indirect one, as the second question, as for all questions in the questionnaire, came with a code for 'Does not know'. In the 2017 survey the set of answers to the second question was more elaborate: 'Yes, definitely', 'Yes, probably', 'No, probably', 'No definitely' and 'Uncertain'; the third question was asked to people who had answered either form of 'yes' to the second one. The 2021 questionnaire was shorter: people were asked the first and the third question without the second one, leaving little room for the measurement of uncertainty. Consequently, in all surveys but the 2021 one, the total number of children for people who had answered 'Does not know' or 'Uncertain' is the number of children they had fathered or given birth to at the time of the survey, as if they had answered 'No' to the second question.

Table A-1 reports the answers to the second question for women aged 15 to 39, for all of them in the left-hand panel and for childless women in the right-hand panel. Taking 'Does not know' as equivalent to 'Uncertain', uncertainty tends to increase with age up to the 30–34 years category but is typically smaller in the oldest category: between 3% and 7% among women aged 15–19, but up to 18% among women aged 30–39. One could argue that assuming 'uncertain' people do not intend to have more children than they had at the time of the survey leads to underestimating the true average total number of intended children. There are few counterarguments and so the data we use probably underestimate the true average total number of intended children. That said, the bias, if any, is consistent over all surveys but the 2021 one – the estimates may be biased downwards, but the trend should not be affected – and the 2021 survey, by omitting the second question, avoids the pitfall and its data lead to low estimates of the total number of intended children. Thus, despite what might look like a bias embedded in the design of the questionnaire, our main conclusion seems to hold: intentions are decreasing.

Table A-1: Intention to have at least 1 more child, including uncertainty among all women and among childless women, by survey and age group. Women aged 15–39. Proportions. Weighted estimation

Age group	All women			Childless women		
	Yes	No	Uncertain	Yes	No	Uncertain
1990						
15–17 years	0.897	0.049	0.054	0.897	0.049	0.054
18–19 years	0.917	0.045	0.038	0.923	0.043	0.035
20–24 years	0.845	0.084	0.070	0.878	0.071	0.051
25–29 years	0.729	0.148	0.123	0.838	0.080	0.082
30–34 years	0.471	0.343	0.185	0.661	0.174	0.165
35–39 years	0.225	0.595	0.180	0.354	0.523	0.123
1995						
15–17 years	0.825	0.103	0.072	0.837	0.090	0.073
18–19 years	0.850	0.099	0.051	0.868	0.077	0.055
20–24 years	0.841	0.090	0.068	0.896	0.045	0.059
25–29 years	0.623	0.253	0.124	0.796	0.095	0.109
30–34 years	0.289	0.526	0.185	0.593	0.226	0.181
35–39 years	0.122	0.795	0.083	0.261	0.559	0.180
2001						
15–17 years	0.885	0.064	0.051	0.885	0.065	0.050
18–19 years	0.885	0.083	0.032	0.887	0.080	0.033
20–24 years	0.833	0.121	0.047	0.866	0.088	0.046
25–29 years	0.655	0.259	0.086	0.819	0.118	0.063
30–34 years	0.359	0.516	0.125	0.683	0.204	0.113
35–39 years	0.130	0.810	0.061	0.360	0.532	0.108
2006						
15–17 years	0.895	0.068	0.037	0.897	0.066	0.037
18–19 years	0.895	0.059	0.046	0.899	0.054	0.047
20–24 years	0.865	0.101	0.034	0.895	0.075	0.030
25–29 years	0.729	0.199	0.072	0.844	0.082	0.074
30–34 years	0.387	0.473	0.139	0.689	0.180	0.131
35–39 years	0.158	0.772	0.069	0.419	0.476	0.106
2011						
15–17 years	0.898	0.069	0.033	0.898	0.069	0.033
18–19 years	0.911	0.031	0.058	0.911	0.032	0.057
20–24 years	0.869	0.077	0.054	0.886	0.062	0.053
25–29 years	0.665	0.247	0.088	0.783	0.148	0.069
30–34 years	0.399	0.507	0.094	0.684	0.198	0.118
35–39 years	0.181	0.745	0.074	0.497	0.371	0.132
2017						
15–17 years	0.812	0.103	0.085	0.812	0.103	0.085
18–19 years	0.809	0.143	0.048	0.809	0.143	0.048
20–24 years	0.758	0.165	0.076	0.794	0.142	0.064
25–29 years	0.585	0.306	0.109	0.716	0.190	0.094
30–34 years	0.122	0.714	0.164	0.277	0.481	0.242
35–39 years	0.052	0.850	0.098	0.153	0.623	0.225

