

The recent fall of women's fertility intentions in Canada

Fertility Intentions of Canadian Women, 1990–2022, Using a Synthetic Cohort Approach

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Abstract

Fertility has been decreasing in Canada since the 2008 financial crisis as it did elsewhere. A key question is whether fertility has fallen because people cannot have the children they want, or because they want fewer children. In this paper, we address the change in fertility intentions of Canadian women over the recent decades. We use data from seven surveys conducted between 1990 and 2022. We use a 'pseudo-biographical' approach: using cross-sectional data and multinomial logistic regression, we focus on the probability of intending to have a specific number of children conditional on parity. This allows showing that intentions have a schedule as fertility itself. Integrating the probabilities over age allows estimating the proportion of the reproductive years spent intending to have any given number of children. Intentions have fallen since 2011, but especially since 2017. This fall is aligned with the fall of fertility. The decrease is most noticeable among young women, of which about half now begin their reproductive years intending to remain childless. The fertility intentions of Canadian women decreased over the last 30 years, and 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. Our results suggest that the decrease in fertility intentions is a likely cause of the recent decrease of fertility in Canada. They should contribute to inform the development of family policies in a context where fertility intentions are decreasing.

1 Introduction

Since the financial crisis of 2008, fertility has been decreasing in Canada: from the onset of the crisis till 2022, the total fertility rate fell from 1.70 to 1.33 (Statistics Canada 2023). Canada was not alone to experience such a fall. A similar decrease occurred in the Nordic countries which were known until recently for their 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.

Modern family policy rests on the assumption that people want to have children but cannot achieve having as many as they want because of external factors. From a policy perspective, the key question in the recent decrease in fertility is whether it occurred because people have become less able to have the children they want – for instance, because of bad economic conditions or the rising cost of having and raising children – or because people want fewer children. The two answers are not mutually exclusive: for instance, after a period in which people have become less able to have the children they want, they may adjust their intentions downwards. That said, the two answers have different policy implications. If fertility declines because of economic factors, modern family-supporting policies may help people have the children they want even if the cost of implementing those policies may be high. If fertility declines because people want fewer children or if people have aligned their intentions with what they perceive as possible, increasing fertility would require a policy that encourages people to wish to have more children, which is not what modern family policy is about.

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 2022. 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 mimicking the way fertility itself is studied, replacing the behaviour with the intentions and the rates with probabilities.

The background section of the article provides an outline of the relation between modern family policy and fertility 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 sketches previous research on fertility intentions in Canada. The next section introduces the surveys and data, and the statistical model. The first part of the results section reports descriptive findings, the second one, results from the use of our model. The last section combines the discussion and the conclusion.

2 Background

2.1 Fertility intentions and policy

In countries where natural growth is high, population policy typically aims at curbing fertility. In countries where fertility is low or perceived to be so, policy might aim at

increasing it. Nowadays, few developed countries implement overt pronatalist policies. Over the last decades, ‘modern’ family policy – that is, more or less inspired by the Nordic model – has displaced pronatalism. This occurred even in France, which had a long history of fostering fertility because the size of the population was considered a source of strength and wealth (Le Bras 1993; Pailhé, Rossier and Toulemon 2008), and even in Germany, where policy promoted a family model based on the social teachings of the Church in which men were breadwinners and women were mothers (Bleses and Seeleib-Kaiser 2004; Ostner 2010). Modern family policy measures do not entice people to have children. On the contrary, they are grounded in the will of helping individuals and couples to have the children they want. Whatever their effect on fertility, they are essential to support families, help reconcile family and work, promote gender equality within couples and within the society, and promote the involvement of fathers in the care and education of their children (Andersson 2008). It is hoped that through all these channels, they will foster fertility – and some do foster fertility even in times when it is decreasing (Laplante 2024) –, but they do not aim directly at increasing fertility nor at encouraging people to desire children. Thus, the change in fertility intentions has direct implications for family policy. If people keep desiring children, say at least two on average, even when they don’t have that many, modern family policy may foster fertility. If people want fewer children, modern family policy may fulfil all of its official goals but may still fail to support fertility.

2.2 Fertility Intentions and the Life Course

Thomson (2005) 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. They 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, family size ideal 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 2005: 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 2005: 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 reflect the degree of 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 even when fertility is considered as a population characteristic and not only as an individual behaviour.

Developing this idea and using Ajzen 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 what is

collected by the two questions 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 Hageween (2005: 238) stress it, 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. Those two measures of fertility intentions belong to a logical sequence in the sense of Miller, but also to the sequence of events of 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 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) found considerable variation of total desired fertility across interviews: as much as half the individuals reported a different total desired fertility across survey waves. Examining the influence of background factors such as growing up with both parents,

having more siblings, and being Catholic on total desired fertility, they found it to be strong early in life but weakening as subsequent life course experiences, including childbearing, take effect. Liefbroer (2009) found similar results using Dutch panel data. Family size intentions are not necessarily stable but 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 being explained by life course events typical for young adults, such as changes in the partner, educational, and occupational careers, and by the timing of the fertility career itself: postponing having children until their thirties increases the likelihood of adjusting intentions downwards.

Bhrolcháin and Beaujouan (2018) take stock of the literature on fertility intentions formation and stability 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” (Bhrolcháin and Beaujouan 2018: 47). The constructive preference approach they propose allows explaining the variation of 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, actual births – settles up. The desired family size is not a goal but a discovery and, at least to some extent, effective preferences, those that govern actual childbearing, follow intentions rather than determine them.

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 data available are cross-sectional, a series of surveys using

the two standard questions conducted roughly every five years between 1990 and 2022. Thus, these surveys provide consistent information on child-number intentions, and this is the measure of fertility intentions we use. Without panel data, one cannot investigate the stability of fertility intentions over the life course nor their translation into behaviour. Thus, the first step is to use the available information to assess whether intentions have decreased over the past two decades among Canadian women as a whole.

The knowledge derived from the study of fertility intentions stability over the life course may also be used to devise 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 childbirths. 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, their relationship with age and with parity may vary as well over that period. This opens the possibility of investigating the variation in intentions across the period not just by comparing average intentions, but by examining the changes in the relation between intentions and the life course – age and parity – across the period too.

The core of our approach consists in looking at the variation of child-number intentions over age much in the 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 a 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 nonlinear 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 Model.

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) and the United States (Bongaarts 2001; Hagewen and Morgan 2005; McQuillan et al. 2014; Ray et al. 2018; Rybińska 2021), 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). Only one addresses the ‘historical’ change in intentions (Edmonston, Lee, and Wu 2010). 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 changing relationships between population characteristics and intentions.

3. Objective

The main objective of the article is to assess the change in fertility intentions of Canadian women between 1990 and 2022. As explained above, we wish to 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 intentions and age and in the relation between intentions and parity. We do not proceed from specific hypotheses but from the premise that the life course perspective, even used with cross-sectional data, will prove informative.

An ancillary objective is to assess the extent of the association between some factors commonly associated with fertility intentions beyond age and parity, such as education and religiosity, on women's fertility intentions in the period we are studying.

4 Methods

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 persons 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. For each survey, we use the sub-sample of women of childbearing age at the time of the survey. For 2022, 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 the six cycles of the GSS on family and that of the 2022 CSS include 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 collected with 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.

The focus of the article is on the relation between fertility intentions, on the one hand, and age and parity on the other hand. Nevertheless, as we mentioned above, we also investigate the effect of some factors commonly associated with fertility intentions: 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 survey. Some of these variables – especially region and language – are of special relevance in the Canadian context. Given that unlike the six GSS, the 2022 CSS did not collect most of these variables, we do not use the 2022 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 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 not be included in our analyses.

4.2 Model

We model the probability of a given answer using polytomous 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 but the reference one 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 of 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 .

5 Results

5.1 Descriptive findings

Figure 1 displays the lifetime child-number intentions – the sum of the number of existing children and the number of further intended children – of Canadian women as measured in each of the seven surveys we use. In all surveys, the modal class is intending to have two children, but the proportion of women intending to have two children falls below .40 for the first time in 2022. The proportion of women intending to never have children increases in 2017 and then in 2022, reaching almost .25. The proportion of women intending to have one child increases over the period. The

proportion of women intending to have three children decreases over the period, more markedly in 2017 and then in 2022.

Figure 2 allows comparing fertility and intentions over the period we study. It displays the total fertility rate, the mean lifetime fertility intentions from each of the seven surveys we use, and the difference between the TFR and mean intentions. To allow a better comparison with the TFR, mean intentions are computed as the mean of the average lifetime fertility intentions within 5-year age categories. Intentions are always larger than fertility, but the difference between the two vary. Intentions remained slightly above 2.0 from 1990 till 2011 despite fluctuations in the TFR: the difference between intentions and fertility was large in 1995 and 2001 as fertility was comparatively low while intentions did not vary by much. However, except for a blip around the COVID-19 pandemic, fertility has been steadily decreasing since 2011 and intentions have decreased in the same fashion.

Table 1 reports the distribution of the parity of women, the distribution of their child-number intentions – first for all women and then for parity zero, one, and two – and the mean child-number intentions by parity.

The proportion of childless women reaches 0.50 for the first time in 2017 and is slightly higher in 2022. The proportion of mothers of one child hovers around .15 throughout the period. The proportion of mothers of two children hovers around .25 until 2011; in 2017 and 2022 it is under .25. The proportion of mothers of at least three children decreases from .17 in 1995 to .10 in 2022. Thus, from 1990 to 2022, the proportion of childless women increases, that of mothers of one child is stable or might increase slightly, while the proportions of mothers of two or of at least three children decrease.

From 1990 till 2011, the proportion of women intending to be childless at the end of their reproductive years varies between .11 and .14 without a clear trend; it is .16 in 2017 and .25 in 2022. The proportion of women intending to have one child increases from .10 in 1990 to .15 in 2022. From 1990 till 2017, the proportion of women intending to have two children varies between .44 and .46; it is .39 in 2022. Between 1990 and 2022, the proportion of women intending to have at least three children decreases from .32 to .21. Thus, over the period, the proportions of women intending to remain childless or to have a single child increase, while that of women intending to have two or at least three children decrease.

The proportion of childless women who intend to remain childless hovers around .30 from 1995 till 2011; it is .33 in 2017 and .49 in 2022. The proportion of childless women who intend to have one child increases from .04 in 1990 to .10 in 2022. The proportion of these who intend to have two children hovers between .41 and .42 from 1995 till 2017; it is .27 in 2022. The proportion of childless women who intend to have at least three children is greater than .20 till 2011; it is .17 in 2017 and .13 in 2022. In a nutshell, over the period, the proportions of childless women intending to remain childless or have only one child increase, while those of women intending to have two or at least three children decrease.

Over the whole period, the proportion of mothers of one child who do not intend to have more children bounces between .51 and .65 without any clear trend. The same is true for the proportion who intend to have two children which bounces between .21 and .29. However, the proportion of women who have one child who intend to have at least three decreases, from .16 in 1990 to .10 in 2022. The decrease seems to occur only after 2011.

Finally, from the beginning to the end of the period, and assuming that the comparatively high figure in 1995 is a glitch – maybe the intent to make up for births postponed during the recession that just ended – , the proportion of mothers of two children who intend to have at least three would have decreased from 1990 till 2001 and then would have increased slightly.

The year 1990 seems to be a special case: within each parity, the proportion of women who do not intend to have one more child – i.e., childless women intending to remain childless, mothers of one not intending to have a second child, etc. – is higher than the corresponding proportion in 1995. The peculiarity of 1990 is even more remarkable for the proportion of childless women who intend to remain childless, which is higher in 1990 than in any year before 2017. This anomaly might have an explanation: that year was right at the centre of one of the two major recessions that occurred in the last quarter of the 20th century and if intentions were, at that time, sensitive to current economic conditions, as fertility itself was, people might have been prone to delay or even give up even the intention to have a child.

Looking at the mean of child-number intentions, one sees that on average, from 1990 to 2011, childless women intend to have between 1.62 and 1.69 children; this number is 1.49 in 2017 and 1.10 in 2022. From 1990 to 2017, mothers of one child intend to have at least 1.53 children; in 2022, it is barely 1.50. From 2001 till 2022, the number of children mothers of two intend to have increases from 2.07 to 2.16.

Figure 3 illustrates the variation of lifetime fertility intentions according to age across the surveys. The values are predicted from a regression in which age is specified using a cubic spline. Each curve represents the variation of the average child-number

intentions for all women between ages 15 and 49 in one survey. Organising the curves according to the birth year of the women in reverse order allows showing the variation over age and across surveys in a synthetic way. The complex shape of the curves of the oldest surveys, especially those of 1990 and 1995 surveys, likely reflect cohort differences: in these surveys, older women were socialised in times where having large families was still part of the norm and thus, in these surveys, older women have higher intentions than younger ones. That said, the two most salient pieces of information in this graph are that in 2017 and 2022, intentions increase with age before decreasing but, unlike in previous years, they never reach 2.

5.2 Models

5.2.1 The Variation of Intentions Over Age

Figures 4 to 6 display the predicted probability of intending to have a given number of children for childless women, women who have one child, and women who have two children respectively. The predicted probabilities are estimated using equations of the form of Equation 2. Some aspects of the shape of the curves reflect a mere logical dependence on age: the probability of not having the next child increases with age, while the probability of any other outcome decreases with it. The departures from the logical dependence are informative.

Figure 4. The figure shows that among childless women, in all surveys but the most recent, the probability of intending to have two children is between .40 and .45 at age 15 and either remains at that level or increases and then decreases until the late 20s. From the late 20s or early 30s onwards, it decreases sharply. Things are different in 2022: the shape of the curve is about the same, but the probability of intending to have

two children is barely greater than .20 at age 15. In all surveys but the most recent, the probability of intending to remain childless is about 0.20 at age 15, seems to decrease a bit until age 20 and increases afterwards. In 2022, the shape of the curve is about the same, but the probability of intending to remain childless at age 15 is about .50. The probability to have a single child is always low and it reaches its peak after age 30. Although the curve is close to flat in most surveys, the age at which it reaches its maximum seems to increase from 1990 till 2017. Excepting 2011, the shape of the probability of intending to have at least three children is like that of the probability of intending to have two children, but lower. This probability is .40 at age 15 in 1990, the same as the probability of intending to have two children, but it is merely .20 in 2017 and 2022.

Thus, the variation over age of the intention to remain childless is stable from 1991 till 2011. Its value among the youth, at the onset of the reproductive years, increases notably in 2017 and even more in 2022. Over the period, the intention to have one child gets progressively centred around the late 30s and that of having two children around the mid-20s. Furthermore, in 2022, the maximum of the curve of the intention to have two children is lower than in any of the previous surveys. Finally, the value among the young and the peak of the curve of the intention of having at least three children are lower in 2022 than in any previous periods.

Figure 5. Among mothers of one child – excepting 2011 –, the curve of the probability of intending to have two children changes progressively over the period: it takes the shape of a normal curve gradually and, from 1995 to 2017, its maximum moves towards a later age. From 2006 onwards, the age at which this curve and the other probability curves begin increases: over the years, there are less and less very

young mothers. In 2022, what would be the left portion of the curve has vanished. Over the whole period, despite the changes in the shape of the curve, its maximum bounces between .45 and .50. The shape of the curve of the probability of intending to have no more children varies but not in a consistent way. In most years, the probability decreases before starting to increase, and the inflection point moves to the right from the earliest to the most recent survey. In 1995 and 2022, the probability increases in a linear fashion. The value of the probability among young women does not vary consistently either. The probability of intending to have at least three children basically decreases with age. However, its value among young women increases between 1990 and 1995, then decreases from 2006 onwards. Over the period, the sole clear pattern of change is that of the intention to have two children: from 1990 till 2006, it gets progressively more concentrated around its peak which moves to the right; in 2017 and 2022, the peak moves back to the left.

Thus, the formation of the intention to have the second child was first delayed, maybe because the age at the birth of the first child was increasing, but in recent years, it seems to peak earlier. Apparently, nowadays, the intention to have a second child is especially high among women who had their first child at an early age. Women who did not have their first child early might be forgoing having the second one.

Figure 6. The probability of intending to have at least three children among mothers of two does not vary consistently across the surveys. The shape of the curve is about the same in all surveys but that of 1995 and 2017. In most surveys, this probability hovers between .25 and .40 among the youngest women, the selected group of very young mothers of two. This probability sometimes increases slightly until the late 20s, then decrease. In 2022, the curve is lower. Overall, this probability seems to

have been mostly stable across surveys but seems to be lower in 2022. That said, the proportion of women who have two children decrease over the period and the proportion of women who already have two children by their early 20s becomes small. These women likely have high fertility intentions from the onset and might have had their first and second child early for that reason.

Figure 7. This figure displays the proportion of the reproductive years spent at intending to have a given number of children by parity and survey. The proportions are computed using the integrals of the probability curves displayed in Figures 4 to 6. Among childless women, the proportion spent intending to have at least three children is never large and decreases across surveys. Among mothers of one, it increases slightly from 1990 to 2001, then decreases. It does not vary consistently among mothers of two. The proportion spent intending to have two children is lower at the end of the period among childless women. It does not vary much among mothers of one. The time spent intending to remain childless among childless women does not vary in a consistent way between 1995 and 2017. It is higher in 2022. Here again, 1990 seems to be a special case.

5.2.2 Other Factors Affecting Fertility Intentions

Investigating the factors commonly associated with fertility intentions provide some insights but few real surprises. The results of the multivariate analyses are in Table 2 and their detailed description is in the Annex. In this section, for the sake of brevity, we limit ourselves to an overview.

Unpartnered women tend to have lower intentions than partnered ones and unmarried partnered mothers of two seem to be more prone to intend to have three

children than married ones. 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 lack 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 seem to align their intentions on those of their country or birth. However, immigrant mothers of two born in such countries seem to intend to continue breaking away from the model of the country in which they were socialised: their probability of intending to have the third child is even 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 their birth remains to be studied.

The regional differences in fertility intentions follow the regional differences in fertility. Research commonly relates Quebec's higher fertility in the last decades to its family policies inspired from those of the Nordic countries and that of the Prairies to the prevalence of industrial jobs and traditional family roles. Our results suggest that these factors might be related to intentions as well.

5.2.3 Education

Describing in full the patterns of the differences in fertility intentions across educational levels and surveys reported in Table 2 would be lengthy. However, taken together, they suggest that overall, among Canadian women, fertility intentions increase with education : the probability of intending to have at least three children among childless

women and mothers of one is the highest for university-educated women, while the probability of intending to have at least three children is the highest among mothers of two is the highest for the two categories of women with a postsecondary diploma. This conclusion might seem disputable, especially given that, as shown in Figure 8, except among mothers of one child in 2001, university educated women do not have larger intentions than other women. These results and their interpretation rely on the assumption that the variation of the intentions across educational levels can be summarised in a set of three coefficients. Given what is known of the relation between fertility, age, and education, this might be a strong assumption. This assumption may be relaxed by using Equation 4 to estimate the variation of intentions over age separately within each educational level. The most informative results are reported in Figure 9.

In a nutshell, highly educated women do not have higher fertility intentions than less educated ones, rather they incline to intend to have children later in life than less educated women. Thus, the differences between educational levels reported in Table 2 are misleading. The problem stems from the fact that less educated women are more numerous and contribute the most to the average schedule, and because linear coefficients can only move a curve vertically – capturing differences in intensity –, not laterally, as is required to correctly capture differences in schedule. Annex 2 provides a more detailed examination and discussion of Equation 4 and Figure 9.

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 larger than fertility, but both vary in the same way since 2001. Since then, there is no obvious lag between them which could suggest that intentions follow or herald fertility. Except for the very young, if intentions were to be translated into a behaviour, they would be so short after having been measured, or at least envisioned to be turned into behaviour while the external conditions prevailing at the time of the measurement still prevail – no matter how external conditions are defined or evaluated. All of this suggests that whatever drives fertility down nowadays drives intentions down too, no matter whether fertility adjusts to intentions or vice versa.

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. Mothers of one child's 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 put these results in context: 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 for the fertility intentions schedule involves looking at fertility intentions not only by parity – life events – but also at their variation over age and over age within parities. Our first glimpse at the variation of child-number intentions over age and across surveys showed that in 2017 and 2022, mean lifetime fertility intentions increase with age before decreasing, as expected, but, unlike in previous surveys, they never reach 2.

Between 2011 and 2022, the probability of intending to remain childless among women at the beginning of their reproductive years increased from about 0.20 to about .50. In 2022, it still decreases until the mid-20s as it did in previous years, but it never goes below .40. The intention to have one or two children moves gradually later in life. That of intending to have at least three children declines; this is especially clear when looking at the proportion of the reproductive years spent intending to have at least three children.

Among mothers of one, from 1990 till 2006, the intention to have the second child became gradually concentrated at a later age – maybe, as we already noted, because the age at the birth of the first child was increasing – but in 2017 and 2022, the peak of the curve moved back to the left – maybe because nowadays, only women who had their first child early ever intend to have two. Accordingly, the proportion of their reproductive years mothers of one spend intending to have at least three children increased in the first part of the period and decreased in the second.

Among mothers of two, the curve of the probability of the intention to have at least three children does not vary consistently across the surveys, though it seems to be lower in 2022. The increase across surveys in the proportion of these women who intend to have at least three children may hide a somewhat more complex process

related with age and parity. It might be that mothers of two is becoming a select group of women who started to have children earlier than most women now do.

As we write above, the differences in the schedule of the intentions across educational levels and in its change across surveys within educational levels shows that the relation between age and the probability of intending to have a given number of children must be modelled within educational levels. Highly educated women do not intend to have more or fewer children than other women, but they tend to intend having them later in life or, to phrase it otherwise, they have a late fertility intentions schedule. The proportion of highly educated women is increasing over time, while the biological ability to conceive and achieve pregnancy decreases with age. This suggests that in the near future, achieving intentions may become more challenging for a growing number of women.

Between 1990 and 2022, the lifetime fertility intentions of Canadian women decreased. Nowadays, Canadian women are not intending to have many children if any, and this seems to be the result of a process that developed over 30 years and most visible since the early 2010's rather than a mere temporary adjustment to the current economic conditions. The decrease is most noticeable among young women, of which about half now begin their reproductive years intending to remain childless. As the proportion of childless women has been increasing over the period we studied, it is hard to see fertility intentions increase in the foreseeable future in the population of Canadian women. Given that the decrease occurred in a period where Canadian social policy was becoming more family-friendly – with higher financial support for low- and lower-middle-income families and better parental leaves and benefits – one cannot see clearly

what kind of policy could foster fertility intentions. As we write above, modern family policy is grounded in the will of helping individuals and couples to have the children they want, which is great for people who want children and the society they are part of, but can hardly, by itself, increase fertility rates. If fertility intentions decrease and keep decreasing in the way we see them decreasing in Canada since 2011, demographers and other social scientists may need to start thinking seriously about this decrease implies for policy.

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 forbids 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 change across the surveys, imposes studying lifetime intentions rather than short-time ones. Other limitations result from our choices. We decided to focus on women's intentions: men's intentions are worthy of a study, but it didn't seem realistic to add them to this article. There is room for more research.

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Annex 1

The annex describes and comments on the results reported in Table 2. The results are from estimations based on equations of the form of Equation 3. The reference outcome is the intention to have two children.

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 the married ones.

Labour force status. Childless women out of the labour force have a higher probability of intending to remain childless than intending to have two than have 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 increases the probability of intending to have at least three children.

Place of birth: Born in Canada or grouped TFR of the country of birth. 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, it 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 living in 1995, childless women had a higher probability of intending to remain so and a higher probability of intending to have at least three rather than 2. 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 living in 1995, mothers of one child had a higher probability of intending to have one child rather than two children. Mothers of two among had a lower probability of intending to have at least three children. In 2006, again compared to women living 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 1990 because of the recession, fertility intentions seem to decrease from 1995 onwards, with one exception: mothers of two living in 2017 have a higher probability of intending to have at least three children than two than had mothers of two in 1995.

Annex 2

This annex describes and comments the results reported in Figure 9.

In Equation 3, age is modelled in a way that makes it akin to the baseline hazard of a hazard model. This means that the effects of the other independent variables are assumed to be proportional: they may move the quadratic curve up and down along the ordinate axis, but they may not alter the shape of the curve and, more to the point in the case of education, they cannot move sideways along the abscissa axis. Thus, if, on average, highly educated women intend to have a given number of children later in their life than less educated women – if the peak of the curve of the relationship between age and intentions for highly educated women is located to the right of the peak of that curve for less educated women – the estimates of the proportional effects might lead to unwarranted interpretations. The proportionality assumption may be relaxed by specifying the equations in a way that allows estimating the quadratic relationship between age and intentions separately for each level of education which is what Equation 4 allows to do. This leads to a series of 84 graphs that, following the presentation we use in Figures 3 to 5, could be assembled in 12 figures. This is pushing the model and the data to their limit, and presenting and interpreting so many results go beyond the scope of this article. That said, even an overview provides some insight as these results show that there are differences between women according to their educational levels.

Figure 9 provides a glimpse of these differences. It allows comparing the predicted probability of grouped values of child-number intentions according to age for childless women having completed secondary education and for women having a university diploma in 1995 and 2017. The choice of the surveys, educational levels and parity is not arbitrary. As we noted above, the intentions measured in 1990 are lower than that of most surveys before 2006 likely because that year was right at the centre of

a recession. For that reason, when wishing to assess the changes that occurred over the period we study, 1995 is a more reliable point of departure. The sample of the 2022 CSS survey is about half the size of the GSS surveys: disaggregating the women subsample by parity and educational levels leads to small groups; using the 2017 survey is less risky. Over the period, not having completed secondary education became less common and more and more a marker of marginality. Having a non-university postsecondary diploma cannot be assimilated with either having completed secondary or university education, but the size of that group is always comparatively small. Secondary and university diplomas are better choices for assessing the variation across educational levels. Finally, over the whole period, childless women constitute the larger group.

It seems more convenient to begin the comparison by looking at the curves of university-educated women. Unsurprisingly, there are almost no such women aged less than 20. In 1995, the curves of the probability of intending to remain childless and or to have only one child start at 0 as 40% of young university-educated women intend to have two children and 60%, at least three. The curves of the probability of intending to remain childless increases steadily though nonlinearly; the curve of the probability to have only one child peaks about age 33. The curve of the probability of intending to have two children begins around .40, that of the probability of intending to have three about .60, The first curve peaks around age 25, the second one decreases steadily in a nonlinear fashion. Likely, the intention to have at least three children is partly replaced with the intention to have with two as age increases. In 2017, the curve of the probability of intending to remain childless begins at .20 and does not increase before the late 20s. The curve of the probability of intending to have a single child peaks in the late 30s rather than at about 33. That of intending to have two children starts at .20

rather than at .40, and peaks around age 27, about two or three years later than in 1995. The curve of the probability of intending to have at least three children is the same as that of 1995. In a nutshell, between 1995 and 2017, intending to remain childless when in the early 20s ceased to be uncommon and the intentions of having one or two children formed later in life. Only the intention to have at least three children remained the same, and we know that having at least three children was already the least common outcome in 1995.

Things are not the same among women who have a secondary diploma. In 1995, the curve of the probability of intending to remain childless begins low, but not at zero, and increases almost linearly. That of intending to have one child is almost flat with a peak around 35. That of intending to have two children begins at just over .40 and peaks in the late 20s. The curve of the probability of intending to have at least three begins at just over .40 too and then drops, not as fast as that of university-educated women. In 2017, the curve of the probability of intending to remain childless starts at the same level as that of university-educated women but starts increasing earlier. The curve of the probability of intending to have a single child is more concentrated and peaks just after age 30; it is similar to that university of university-educated women in 1995. The curve of the probability of intending to have two children is a bit more concentrated than in 1995, but peaks at about the same age as in 1995. The curve of the probability of intending to have at least three is almost identical to that of 1995, although it might begin a bit lower. In short, between 1995 and 2017, intending to remain childless when in the early 20s ceased to be uncommon among secondary education as among the university-educated ones, while the probabilities of intending to have one or two children became more concentrated around their peak. As among university-educated

women, the curve of the probability of intending to have at least three children did not change.

The differences in the schedule of the intentions across educational levels and in its change across surveys within educational levels is shows that the relation between age and the probability of intending to have a given number of children has to be modelled within educational levels and that the 'linear' effects associated with the education levels, which suggest that the university-educated women tend to have higher fertility intentions, is an artefact.

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 to 49. Weighted estimation.

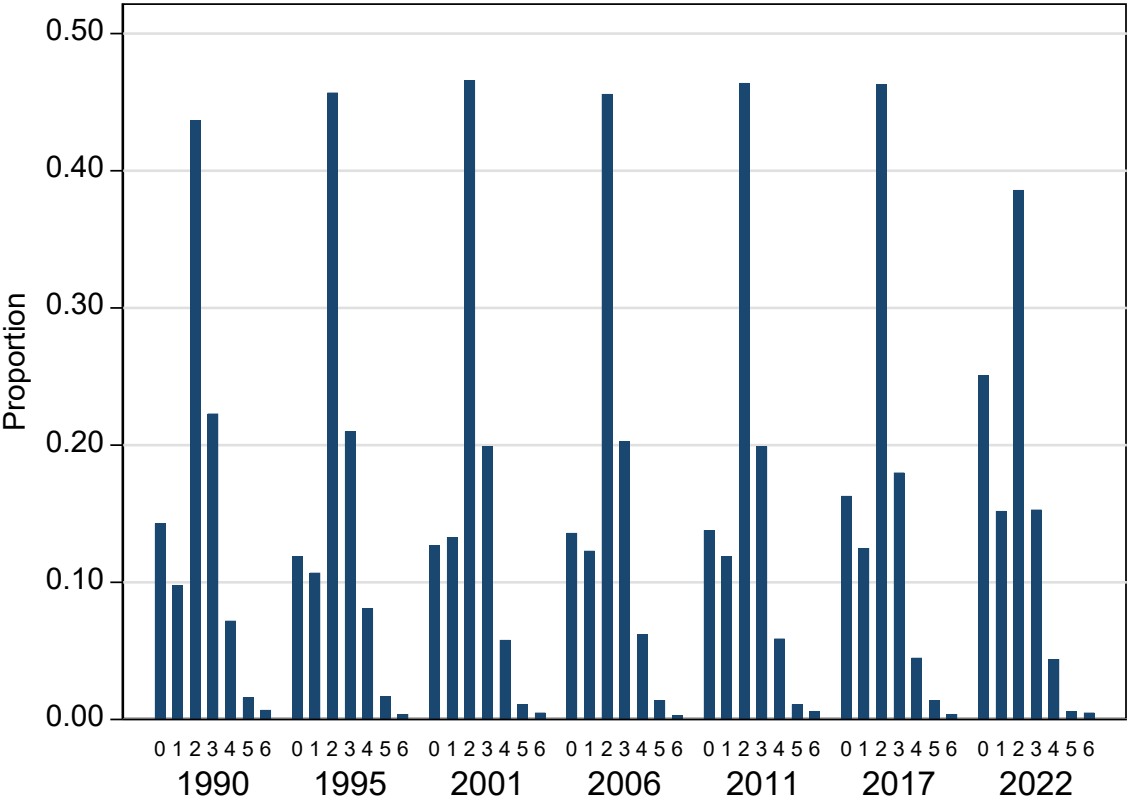
	Parity						
	1990	1995	2001	2006	2011	2017	2022
None	0.445	0.409	0.425	0.462	0.456	0.500	0.513
One child	0.144	0.151	0.163	0.156	0.154	0.145	0.154
Two children	0.249	0.270	0.263	0.242	0.254	0.233	0.232
At least three children	0.162	0.170	0.149	0.139	0.136	0.123	0.101
Child-number intentions, all women							
	1990	1995	2001	2006	2011	2017	2022
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	2022
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	2022
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	2022
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	2022
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]

Table 2. Effect of selected independent variables on the probability of child-number intentions by parity. Women aged 15 to 49. Multinomial logistic regression where the intention to have two children is the omitted outcome. Weighted estimation.

Parity	None			One		Two
Child-number intentions	None	One	At least three	One	At least three	At least three
Age	0.805	0.960	1.054	0.861	0.847	1.024
Age squared	1.006	1.002	0.998	1.005	1.001	0.997
Conjugal status [Married]						
In a common-law union	1.205	1.052	0.887	0.966	0.782	1.612
Unpartnered	1.676	0.819	1.175	2.707	1.157	1.013
Highest diploma [Secondary]						
Less than secondary	1.155	1.339	0.742	1.694	0.922	0.901
NUPS	0.805	0.833	0.840	0.829	1.050	1.523
University	0.698	0.671	1.165	0.516	1.081	1.379
Labour force status [In the labour force]						
Not in the labour force	1.317	0.705	0.959	0.873	1.086	1.382
Student	1.028	0.968	1.127	0.852	1.291	1.114
Importance given to religious beliefs [No religious belief]						
No importance	0.798	0.928	1.351	0.864	1.298	1.384
At least some importance	0.594	0.779	1.843	0.670	1.699	1.798
Home language [French only]						
English only	1.057	0.860	1.075	0.756	1.046	1.755
Other	0.818	0.871	0.770	0.974	0.893	1.246
Born in Canada or grouped TFR of country of birth [Born in Canada]						
Less than 1.3	1.834	1.343	0.313	0.439	0.861	2.925
From 1.3 to less than 2.1	0.892	1.427	1.019	0.776	0.856	1.335
At least 2.1	0.865	1.225	0.993	0.894	1.151	2.353
Type of area [Urban]						
Rural	1.179	1.088	1.134	1.454	1.281	1.061
P.E.I. ¹	1.262	0.516	1.439	0.731	1.589	1.192
Region [Quebec]						
Atlantic	1.336	1.262	0.607	1.707	0.560	0.348
Ontario	1.342	1.065	0.819	1.273	0.792	0.621
Prairies	1.486	1.051	1.036	1.129	0.905	0.573
British Columbia	1.385	1.083	0.836	1.591	1.079	0.569
Year of the survey [1995]						
1990	1.489	0.736	1.275	1.602	0.938	0.566
2001	1.023	0.896	0.850	1.911	1.190	0.666
2006	0.914	0.796	1.002	1.664	1.192	0.888
2011	1.057	0.914	0.932	1.461	1.091	1.163
2017	1.127	1.214	0.831	1.208	0.985	0.566
Intercept	1.103	0.132	0.375	0.594	12.573	1.083
<i>N</i>		13,627			5,750	8,695

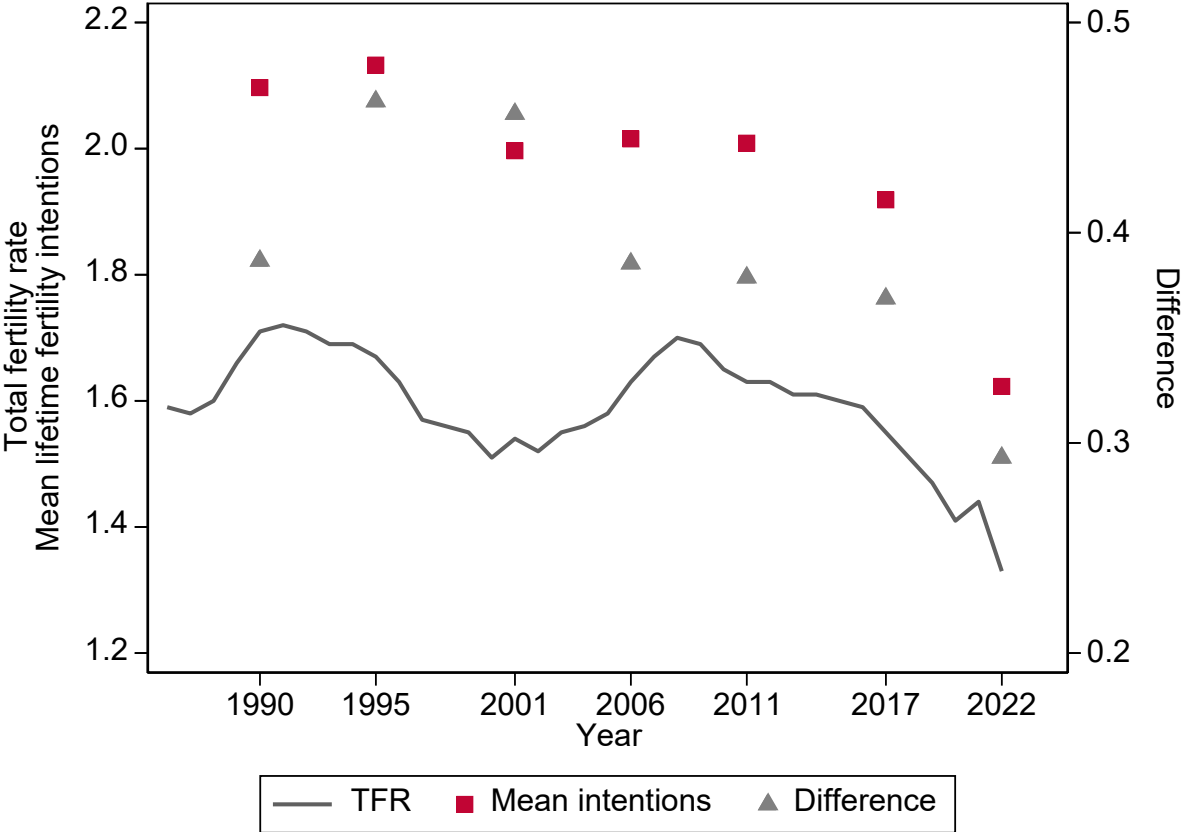
¹ Prince Edward Island is the smallest of the Canadian provinces in terms of area and population. In official statistics, it is not divided into urban and rural areas.

Figure 1 Lifetime child-number intentions of women, Canada, selected years, 1990–2022. Weighted estimation.



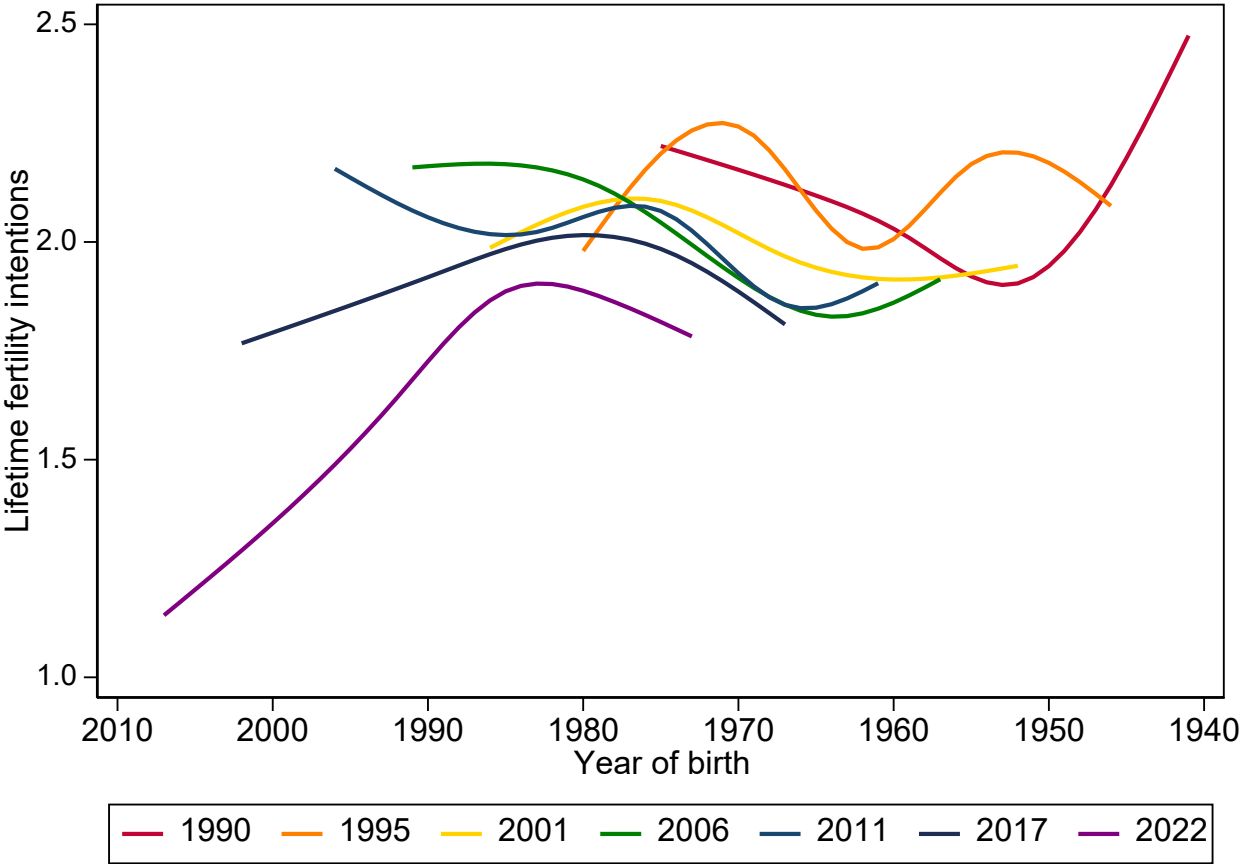
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

Figure 2 Total fertility rate, Canada, 1986–2022. Mean lifetime fertility intentions, selected years, 1990–2022. Difference between the TFR and mean lifetime fertility intentions.



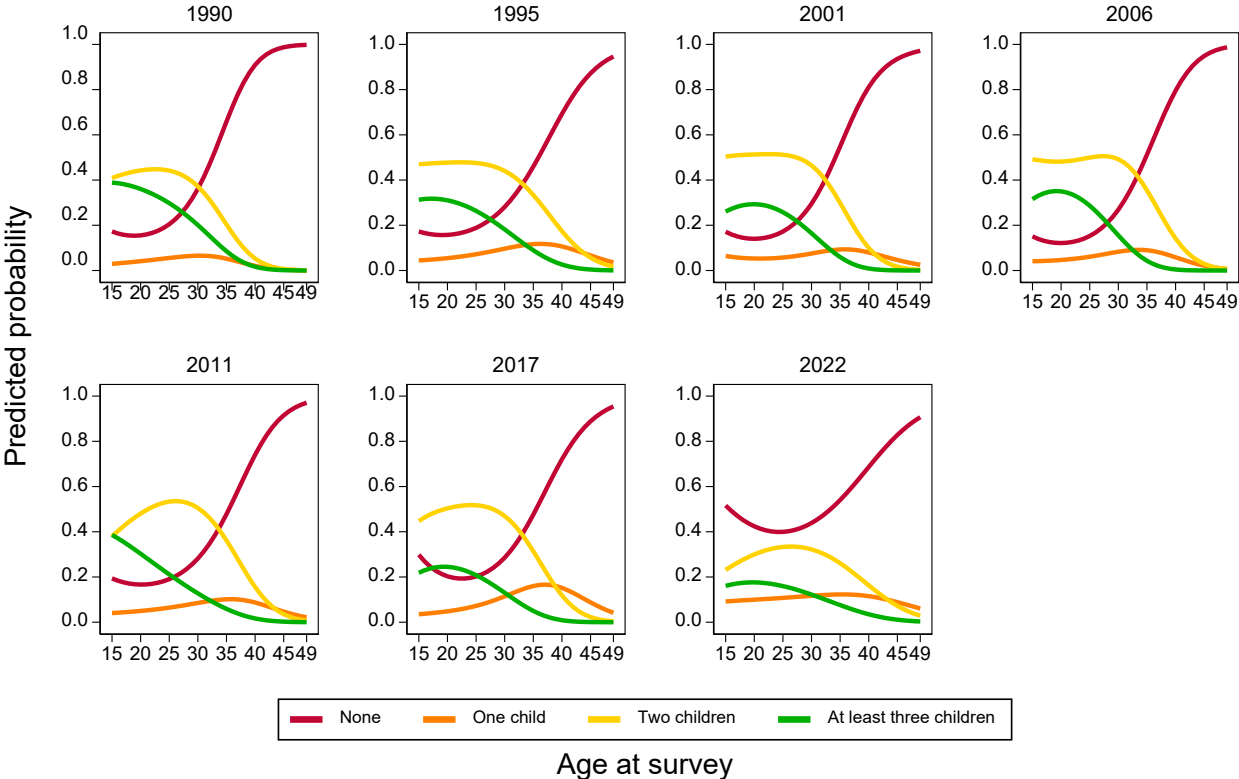
Source: Statistics Canada, Crude birth rate, age-specific fertility rates and total fertility rate (live births), Table: 13-10-0418-01, Release date: 2023-09-27. Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

Figure 3 Lifetime fertility intentions according to year of birth among women aged 15 to 49 by survey, predicted from a regression in which the effect of age is modelled using a cubic spline.



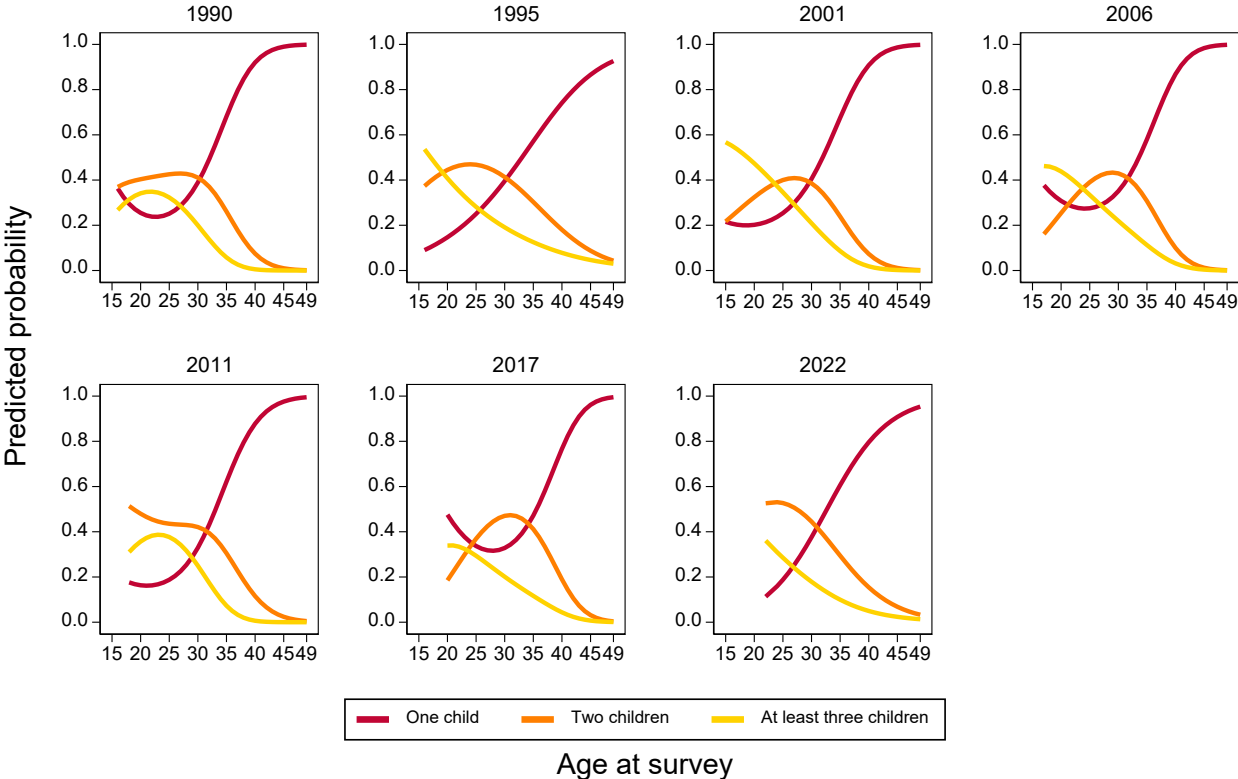
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

Figure 4. Predicted probability of child-number intentions according to age by parity. Childless women. Women aged 15 to 49. Multinomial logistic regression. Weighted estimation.



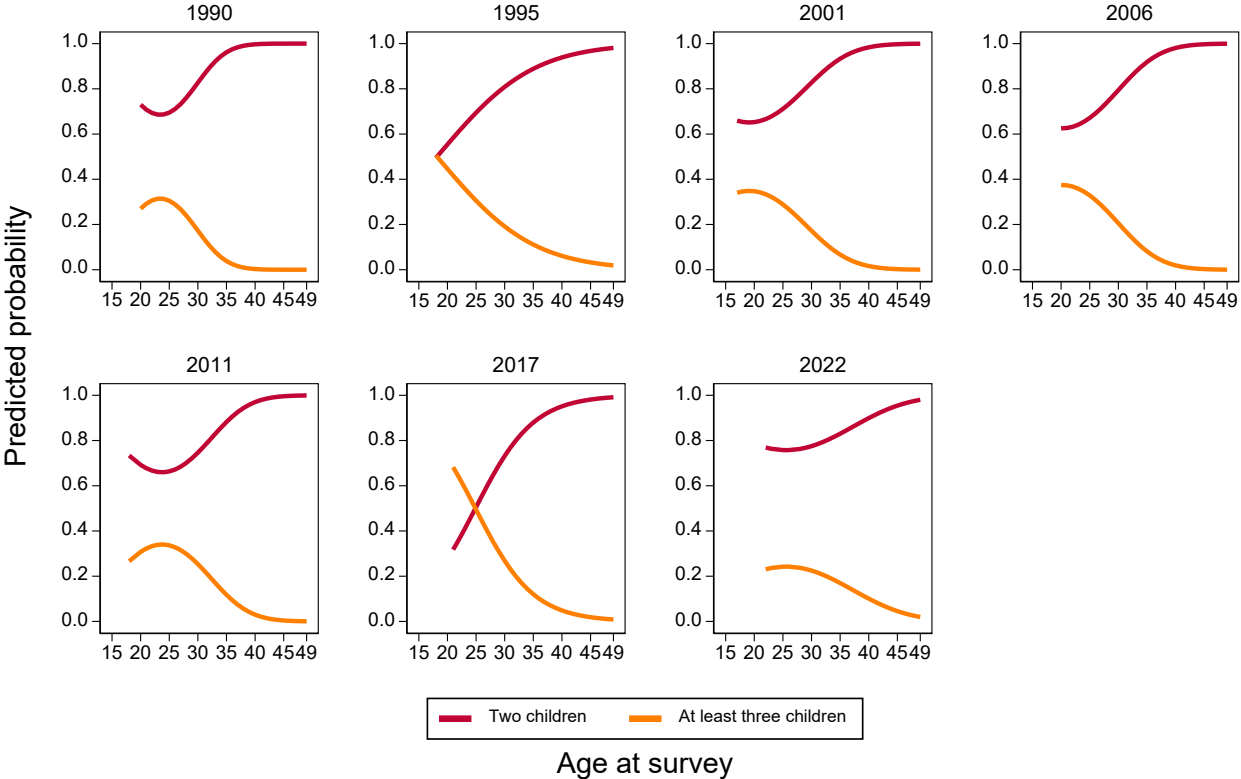
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

Figure 5. Predicted probability of child-number intentions according to age by parity. Women who had one child. Women aged 15 to 49. Multinomial logistic regression. Weighted estimation.



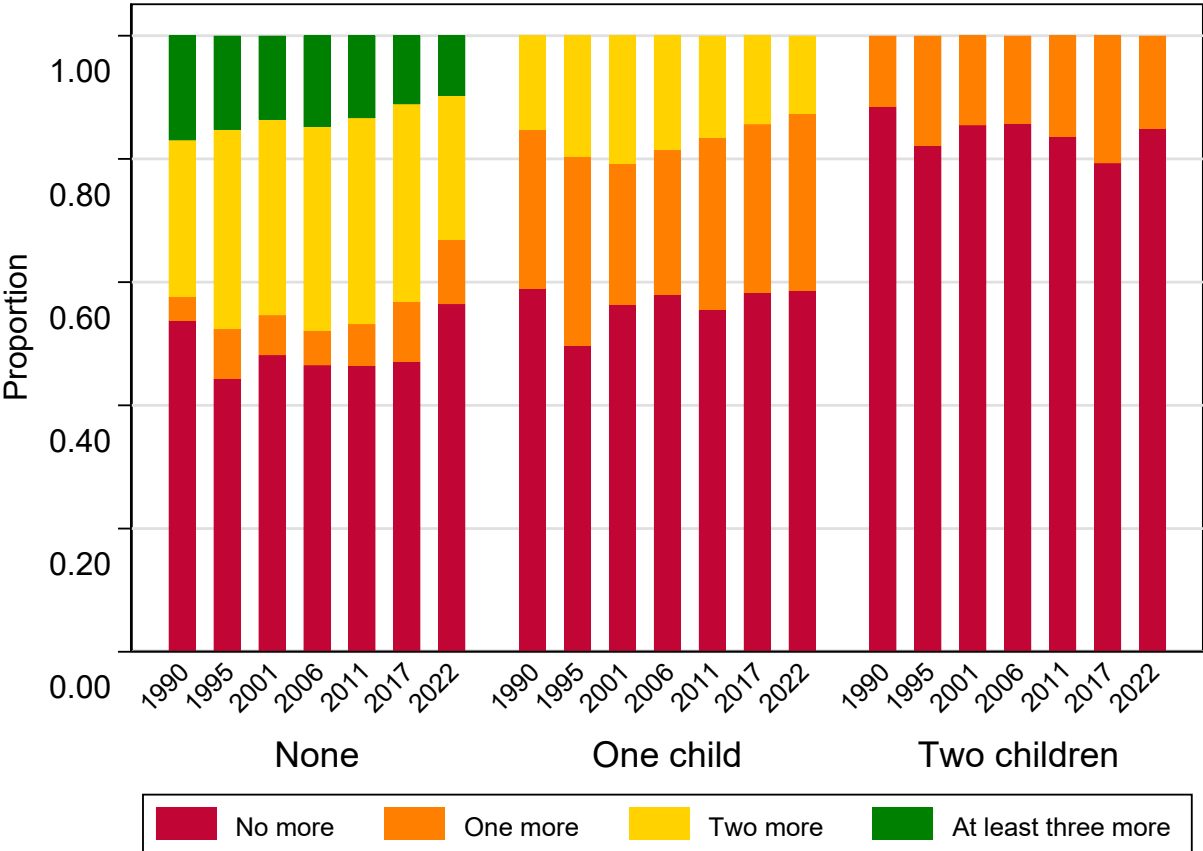
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

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



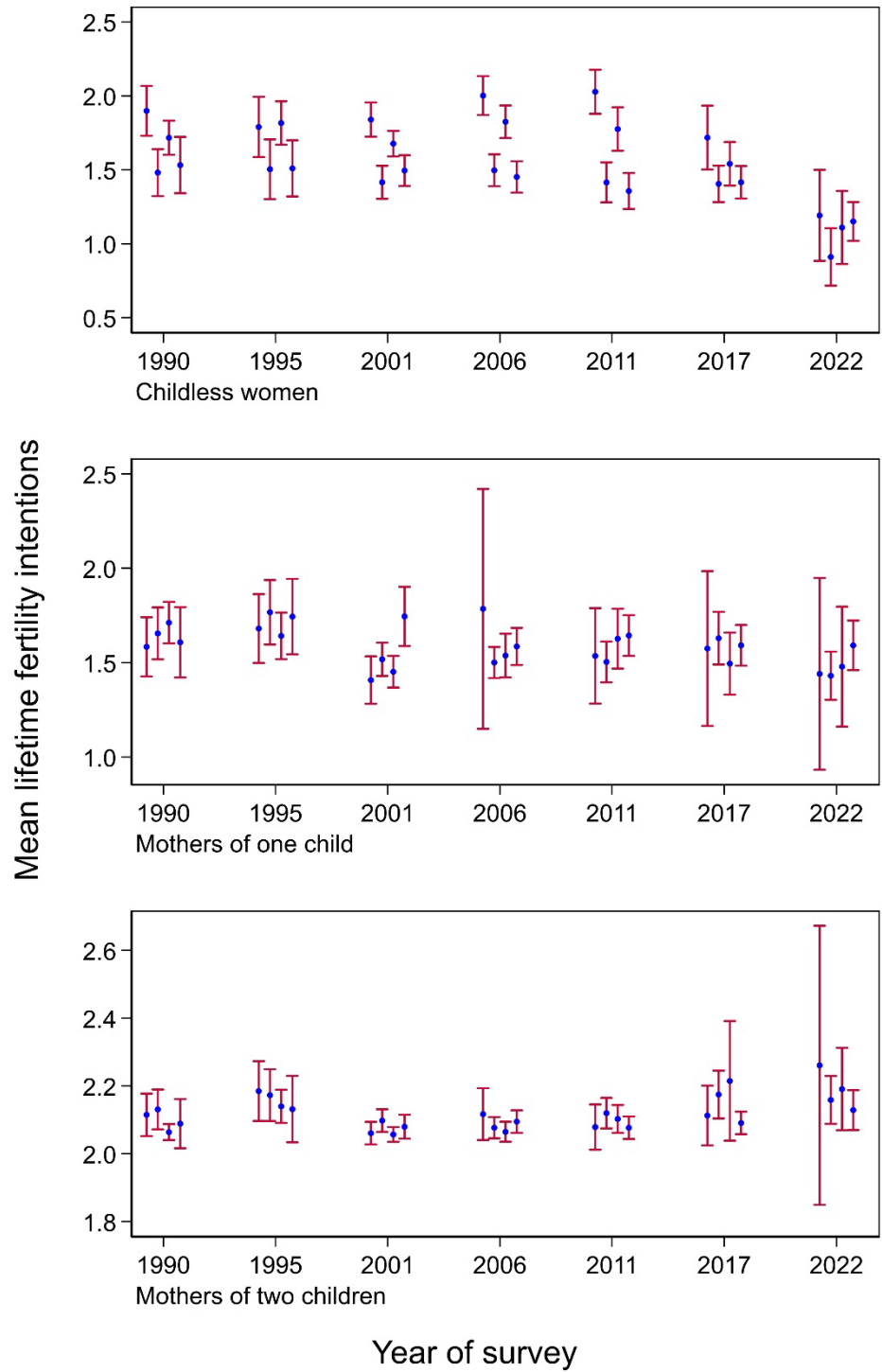
Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.

Figure 7 Proportion of the reproductive years spent intending to have a given number of children by parity and survey. Women aged 15 to 49.



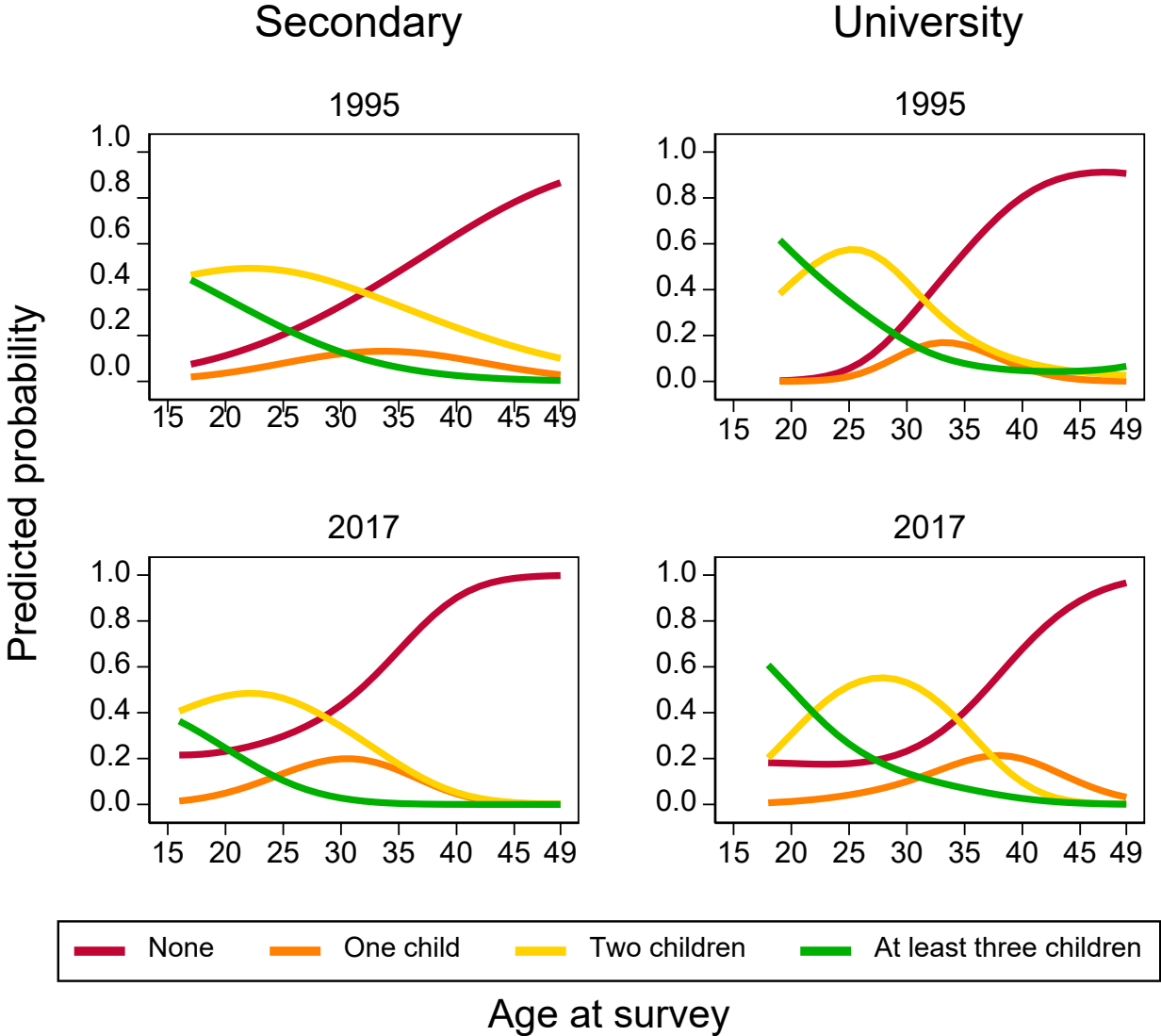
Note: The proportions are computed using the integrals of the curves displayed in Figures 3 to 5.

Figure 8 Mean lifetime fertility intentions of women aged 15 to 49 by educational levels and survey. Weighted estimation.



Educational levels increase from left to right.

Figure 9. 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 to 49. Multinomial logistic regression. Weighted estimation.



Source: Statistics Canada, General Social Survey 1990–2017 and Canadian Social Survey 2022.