

Who has a third child?

by Alain Bélanger and Cathy Oikawa

The size of the average Canadian family has shrunk rapidly since the 1960s. The two-child family is more and more the norm, and large families now make up only a small share of all families. A good deal of the decline in fertility is due to the decrease in what demographers call “higher order fertility rates.” In essence, the majority of women continue to have two children, but fewer and fewer are having three or more; in 1991, for example, over half of women aged 60 to 64 but only one-quarter of women aged 35 to 39 had three or more children.¹

Nevertheless, the third child continues to have an appreciable impact on Canada’s population growth; in fact, third births account for about 15% of the total fertility rate in a given year. In a time of declining fertility, it is worthwhile to examine the factors affecting the likelihood that a woman will have three children.

Researchers have long identified a number of factors that can affect fertility. This study uses data from the 1995 General Social Survey (GSS) to assess the effect of these factors on the

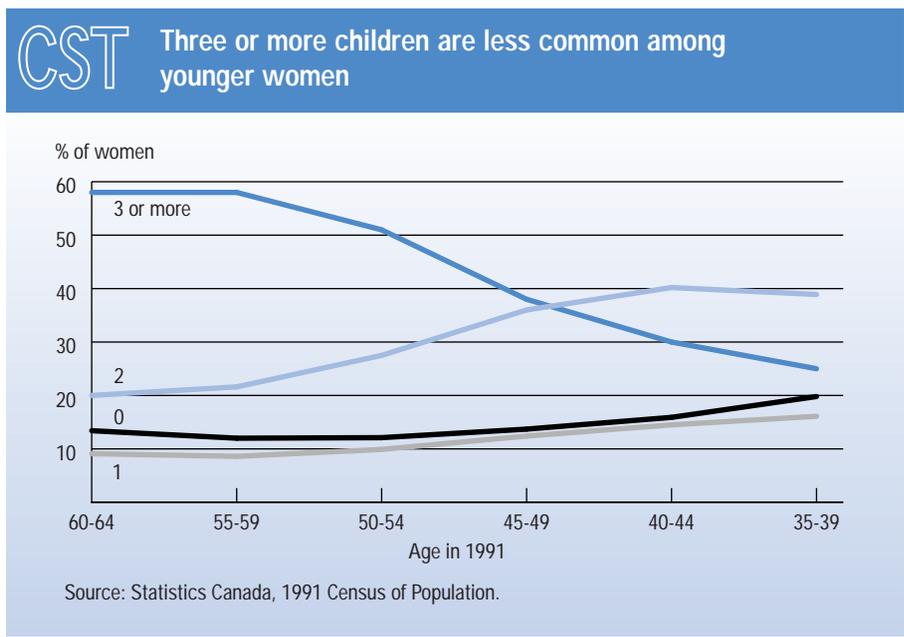
likelihood that a woman with two children will have a third.

Previous fertility history key deciding factor

Economists have argued that women who have been in the labour market tend to have fewer children than women who have not worked for pay, and that highly educated women tend to have fewer children than women with less schooling. Sociologists have focused on cultural characteristics such as attendance at religious services, country of birth and number of siblings. Demographers, on the other hand, have emphasised the timing of life-cycle events and have focused on

marital status, the mother’s age and the interval between births.

Analysis of 1995 GSS data indicate the two strongest predictors of the probability that a woman will have a third child are her age at the birth of her first child and the length of time between the first and second births. When the effects of other variables in the analysis are taken into account, women who had their first child before they were 25 are 2.5 times more likely to have a third baby than those whose first child was born when they were over 30. And women who waited a long time between their first and second children (over 53 months) were only one-third as likely to have a



1. At the time of the 1991 Census, the fertile period of women aged 35 to 39 was incomplete. However, fertility rates in Canada are very low after age 39, at less than 6 births per 1,000 women aged 40 to 44 and virtually zero for those aged 45 to 49.

third child as women who had their second child fairly quickly (less than 30 months between births).

The mother's year of birth is also an important predictive factor. The probability of a third birth is 76% higher for women born before 1945 than for women born after 1965, even after controlling for all other variables included in the analysis. On the other hand, the probability of having a

third child is no different for women born during the baby boom (1945 to 1964) than for women born during the baby bust (after 1965).

Marital status has a weaker effect than other demographic factors. Being in a common-law union rather than a legal marriage does not significantly reduce the likelihood of bearing a third child, all other things being equal. However, the probability of having a

third child is over one-third lower for women who are not in a union than for women who are.

Labour force participation reduces likelihood of third baby

The effect of employment status on a third birth is substantial. Compared with other women, mothers who returned to the workforce after giving birth to their second child were about one-third less likely to have another baby. Higher education has about the same dampening effect on third-order fertility as employment experience. Women without high school are one-third more likely than those with high school or more to have a third child. Interestingly, the difference between women with secondary as opposed to postsecondary completion is not statistically significant.

These results support researchers who argue that declining fertility stems from women's rising level of education and increasing labour market participation. At the same time, women's greater economic independence has increased the costs of motherhood, both directly (daycare, child's education) and indirectly (loss of income, setbacks or delays in career advancement). These costs mount with every birth.

Religion plays a role in higher-order fertility

Several cultural variables are also valuable predictors of the probability of a third birth. The most important is attendance at religious services, with women who attend every week being about 50% more likely than other women to have a third child. Since the effects of other variables strongly associated with religious attendance are controlled for (age of mother, fertility history and marital status), it seems that religiosity affects fertility in ways that are not captured by this analysis.²

The woman's country of birth also plays an important role. Studies based

CST What you should know about this study

This article draws on data from the 1995 General Social Survey (GSS). The 1995 GSS interviewed nearly 11,000 respondents aged 15 years and over living in private households in the ten provinces. The data collected included information about respondents' fertility history, such as the number of children each woman had, the date of birth of each child, the woman's marital history (including common-law unions), and the dates they started and stopped working.

Using this information, a sample of almost 2,600 women who had given birth to at least two children was selected. A technique called "event history analysis" was then applied to the data in order to estimate the relationship between various characteristics and the probability of having a third child.

"Event history analysis" combines two tools — life tables and regression analysis — to measure the net effect of different factors on an individual's probability (or risk) of experiencing an event. In this article, event history analysis is used to estimate the likelihood that Canadian women who already have two children will give birth to a third child, given certain demographic, cultural and socio-economic characteristics. The results show the net effect of a given factor after other factors included in the analysis have been neutralised.¹

The results are presented in a table showing the risk ratios for a number of characteristics. Each variable uses a reference group as a benchmark; by definition, the risk ratio for this reference group is equal to 1.0. A ratio greater than 1.0 for the comparison group means that the factor being examined has a positive effect on a woman's probability of having a third child; a ratio of less than 1.0 indicates the factor's effect is negative, compared with the reference group. A ratio of 1.0 means that, compared with the reference group, the factor has no influence.

1. The characteristics selected for the model are assumed to be the only ones that affect third-order fertility.

on vital statistics have shown that Canadian-born women have a higher fertility rate than women who immigrated many years ago, but a lower rate than more recent immigrants.³ This difference is probably due to a shift in immigrants' countries of origin. The majority of women who immigrated before the 1980s came from Europe, where fertility declined earlier than it did in Canada. In contrast, the majority of more recent immigrants came from developing countries, where fertility is generally higher. Even when controlling for variables that might explain some of these differences (education, fertility history and religious service attendance), the analysis shows that the mother's place of birth still has a significant effect on the likelihood she will have a third child. Compared with Canadian-born women, the probability of bearing a third child is 20% lower for women born in Europe and the United States, while it is 50% higher for women born in other parts of the world.

The data show that something of the same pattern exists within Canada itself. In Prince Edward Island, Manitoba, Saskatchewan and Alberta — provinces whose total fertility rates have long been slightly above the national average — the probability of having a third child is 17% higher than in other provinces.

On the other hand, having siblings does not increase a woman's chances of giving birth to more than two children. Some analysis has indicated that there is an association between having brothers and sisters and having a third child, perhaps because people develop their sense of appropriate family size

2. Canadian adults who regularly attend religious services place greater importance on having children than those who do not. Clark, W. "Religious observance, marriage and family," *Canadian Social Trends*, Autumn 1998.

3. See, for example, *Report on the Demographic Situation in Canada 1994*. Statistics Canada Catalogue no. 91-209-XPE.



Previous fertility history is the strongest predictor a woman will have a third child

Year of birth	
Before 1945	1.76
1945 to 1954	1.06*
1955 to 1964	1.07*
<i>After 1965</i>	<i>1.00</i>
Age at birth of first child	
Under 25	2.53
25 to 29	1.60
<i>30 or over</i>	<i>1.00</i>
Interval between first two births	
<i>Less than 30 months</i>	<i>1.00</i>
30 to 53 months	0.66
More than 53 months	0.31
Marital status	
Not in union	0.63
Common-law union	1.05*
<i>Married</i>	<i>1.00</i>
Employment status after second birth	
Working	0.65
<i>Not working</i>	<i>1.00</i>
Education	
No secondary completion	1.31
<i>Secondary completion</i>	<i>1.00</i>
Postsecondary completion	1.02*
Province of residence	
High fertility rate ¹	1.17
<i>Average fertility rate</i>	<i>1.00</i>
Religious attendance	
Weekly	1.46
<i>Other</i>	<i>1.00</i>
Number of siblings	
None	0.96*
<i>One</i>	<i>1.00</i>
More than one	1.11*
Place of birth	
<i>Canada</i>	<i>1.00</i>
Europe and North America	0.80
Other countries	1.48

Note: Reference group (1.0) shown in italics.

* Not statistically significant.

1. Prince Edward Island, Manitoba, Saskatchewan and Alberta.

Source: Statistics Canada, 1995 General Social Survey.

from the family they grew up in. However, the GSS data indicate that this relationship is not significant when the effects of the other variables are accounted for.

Summary

GSS data indicate that women's fertility history is the most important predictor of higher-order fertility. Women who were young when they had their first child, and who had a second child quickly afterwards, have the greatest chance of bearing a third child. It is also true, however, that certain cultural and socio-economic characteristics have a substantial effect on the probability of a third birth. Regular attendance at religious services tends to increase the probability, while the effect of the mother's place of birth differs depending on country of origin. Without doubt, labour market participation reduces the probability of having a third child. Employed women are much less likely to bear a third child than women who are not in the labour market, even when their fertility history and other variables have been controlled for. This suggests that measures to reduce the direct and indirect costs borne by families, such as day-care subsidies or flexible working hours, might have a positive effect on the fertility of Canadian women.

• This article is adapted from *Report on the Demographic Situation in Canada 1997*. Statistics Canada Catalogue no. 91-209-XPE.



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