

## Childbirth trends in Estonia in the light of the 2011 census

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Low birth rate and the negative natural increase is a matter of existential importance for Estonia. Frequently asked question is: what should be done to make Estonian women bear more children. To some extent, this question can be answered by identifying the factors or circumstances associated with childbirth patterns, including the number of children born. The Population Census added some new information in that respect. The Census data also enable to determine the completed fertility rate of the cohorts of women who are past their childbearing years. It shows the number of children born to women in the course of their lives.

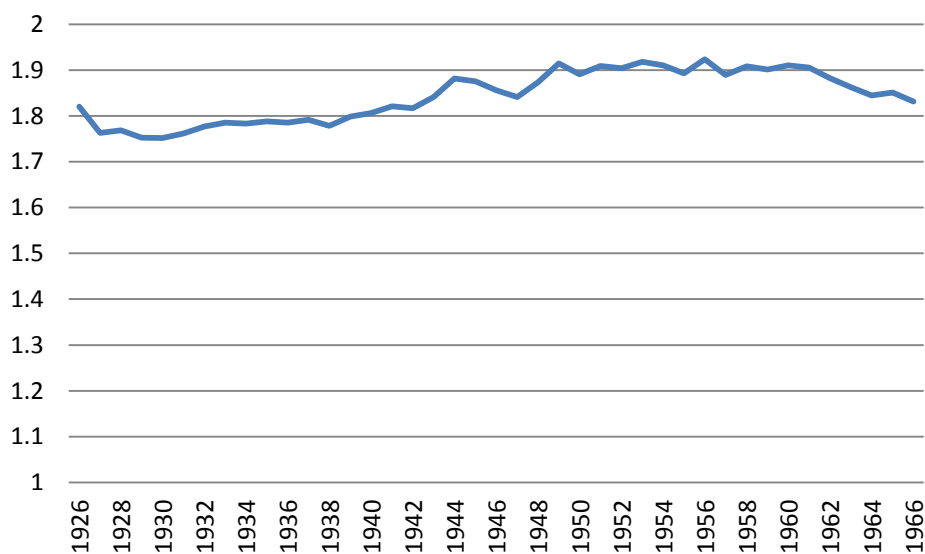
The 2011 Population Census included two questions directly pertinent to childbirth trends. The questions concerned the number of children born to a woman and the woman's age at first birth. These questions are not part of the international (or European) mandatory questions but they have been used, with small variations, in previous population censuses organised by the Estonian state.

The aim of the study was to describe factors that influence the number of children born to a woman and forecasting the number of births.

### Completed fertility rate and its progression over time

Completed fertility rate can be determined in case of women who were born in 1966 or before. It is noticeable that the value of the coefficient exceeds 1.9 only in case of women in the age group of 49–62 years, but never reaches the population replacement level (Figure 1).

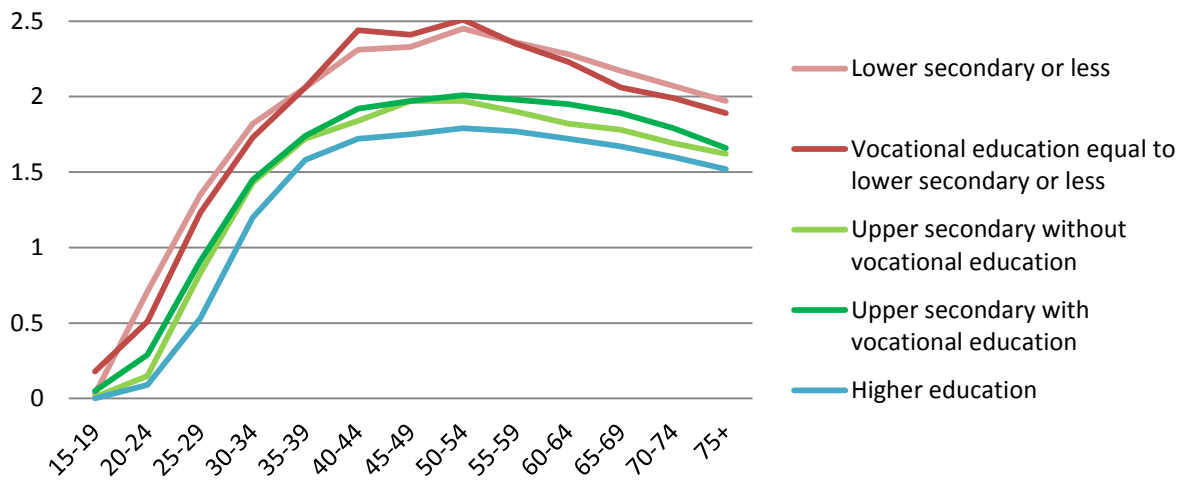
Figure 1. Mean number of children born by year of birth of the woman



### Impact of education on the number of children born

The theory that women's increased level of education reduces the number of births has been confirmed by many studies and is seen as one of the principal arguments in the discussions about the prospects of limiting future population increase in developing countries. Some decades ago, an opposite trend could occasionally be observed in Estonia – women with higher education were more motivated to have children than women with lower levels of education. The last Population Census provided a good opportunity to test this hypothesis. It appears that the mean number of children is the highest, in all age groups, in case of women with basic education, followed by women with secondary education (Figure 2). Women with higher education have the least number of children, as they generally start having children later than the other groups and their mean number of children does not exceed 1.8.

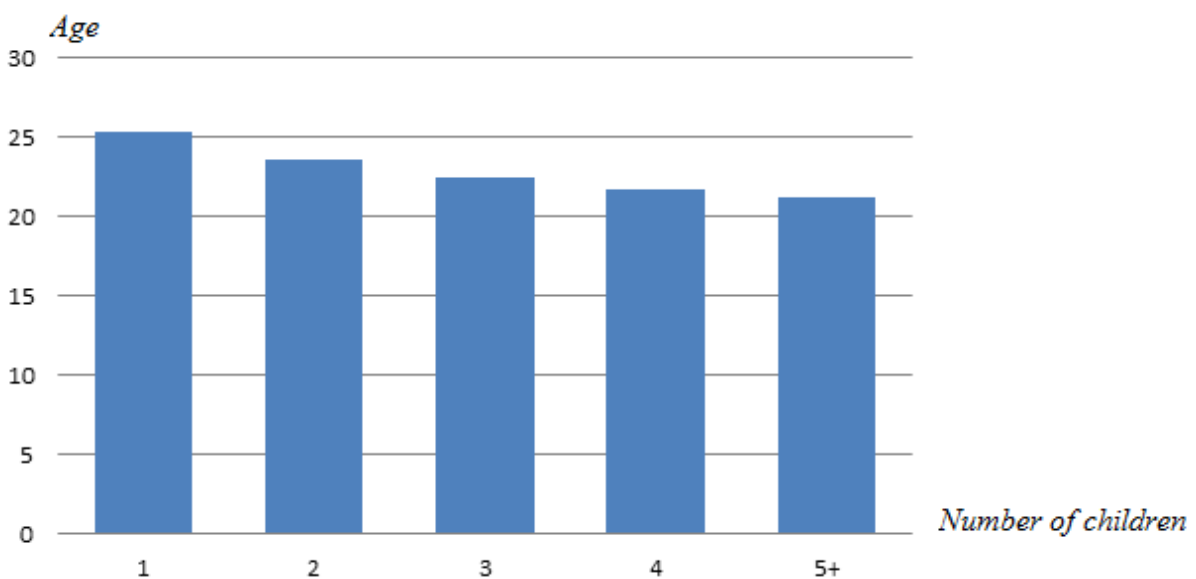
Figure 2. Mean number of children by age group and educational attainment of the woman



### Impact of timing of the first birth on the mean number of children

The general rule is that women, who have their first child at a younger age, also reach a higher mean number of children. However, this is not always true in country comparisons. For instance, even though women's age at first birth is relatively low in Eastern Europe, its overall number of births is behind the mean indicators of Northern Europe and Ireland where the mean maternity age is higher. The Population Census data provide an opportunity to check the correlation between the number of children and the age at first birth, and Figure 3 indeed confirms the existence of such a correlation. While women with only one child have always had their child at around 25–26 years of age, women with three children have their first child, on average, at the age of 22, and women with five children at the age of 21.

Figure 3. Mean age of the first birth by number of children



### Forecast the number of children born

The number of children born in the future will decrease during the next years.