Intended, desired, and actual fertility in a cross-country comparison. Evidence on fertility gaps at different age groups from the Generations and Gender Survey Round II

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Background

In many countries with low fertility rates, previous research shows an aggregate gap between fertility intentions and behavior (e.g., Harknett & Hartnett 2014, Beaujouan & Berghammer 2019). Using a cohort approach, Beaujouan & Berghammer (2019) show for Europe and the United States that the mean intended family size of young women aged 20-24 and born in the early 1970s is higher than the completed total fertility rate of the same cohort. This suggests that numerous couples fail to realize the number of children they intended to have. Miller and Pasta (Miller 2011; Miller/Pasta 1995) distinguish between fertility intentions and fertility desires. While the former does take potential situational constraints into account, the latter does not (see Philipov/Bernardi 2011). The "fertility gap" between ideal and actual fertility, therefore, informs about the difference between the family size, people really wish to have, regardless any constraints, and their actual number of children. Testa (2012) analyzed 27 European countries and showed that men and women aged 55+ in year 2011 would have liked to have had, respectively, on average 0.2 and 0.3 more children than they actually had. Recent evidence on the extent of such discrepancies between ideals, intentions, and behavior regarding fertility is highly relevant for policy makers in countries with low fertility rates, as it gives insights into the scope of action to enable individuals to have the family size they desire. It might also inform future research on the specific reasons and key drivers behind these gaps in different countries.

This study focuses on child-number ideals and intentions individuals have and compares them with actual cohort fertility. Newly available data from the Generations and Gender Survey round 2 (GGS-II, Gauthier et al. 2023) enables us to give an up-to date overview of intended, ideal, and actual fertility and two aggregate fertility gaps for women by age, namely (1) the gap between the intended number of children and children born (intended-actual fertility gap) and (2) the gap between the ideal number of children and children born (ideal-actual fertility gap). We aim to answer the following research questions: (1) What is women's mean intended and ideal number of children in these eight countries and what is the extend of the two fertility gaps (intended-actual, ideal-actual) among different age groups? (2) Do we observe country differences in these fertility gaps and levels of the mean intended and ideal fertility? (3) How do these fertility gaps among different age groups vary by specific sociodemographic and socioeconomic characteristics?

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This paper is the first to our knowledge to analyze both fertility gaps as dependent variables among different age groups. The cross-national approach allows us to explore different sizes of fertility gaps and if conditions at the individual-level to realize fertility intentions and ideals differ by country.

Data and methods

Using data from the Generations and Gender Survey round 2 (GGS-II, Gauthier et al. 2023), collected between 2020 and 2023, we examine the intended, ideal, and actual number of children for women by age for eight European countries (Austria, Czech Republic, Denmark, Estonia, Finland, Germany, Moldova, Norway). For Germany, we use a pre-release post-harmonized dataset of the FReDA (Family Research and Demographic Analysis) panel (Bujard et al. 2023, release version 3.0.0), whose questionnaire is fully comparable with GGS-II (Krapf et al. 2023). The analytic sample is restricted to women aged 18-49 that have no missing information on the intended, ideal, and actual number of children. The actual number of children is a sum of the number of all biological children the respondents reported to have with a current or previous partner or out of cohabitation. In the GGS-II, all respondents were asked about their ideal number of children ("For you personally, what would be the ideal number of children you would like to have or would have liked to have had?"). If respondents intend to have (further) children, they were asked to report their intended family size ("How many (more) children – including biological and adoptive children – do you intend to have overall? [Not including existing children]"). We calculated the overall intended number of children by adding the number of children born to the (further) intended number of children reported in response to this question.
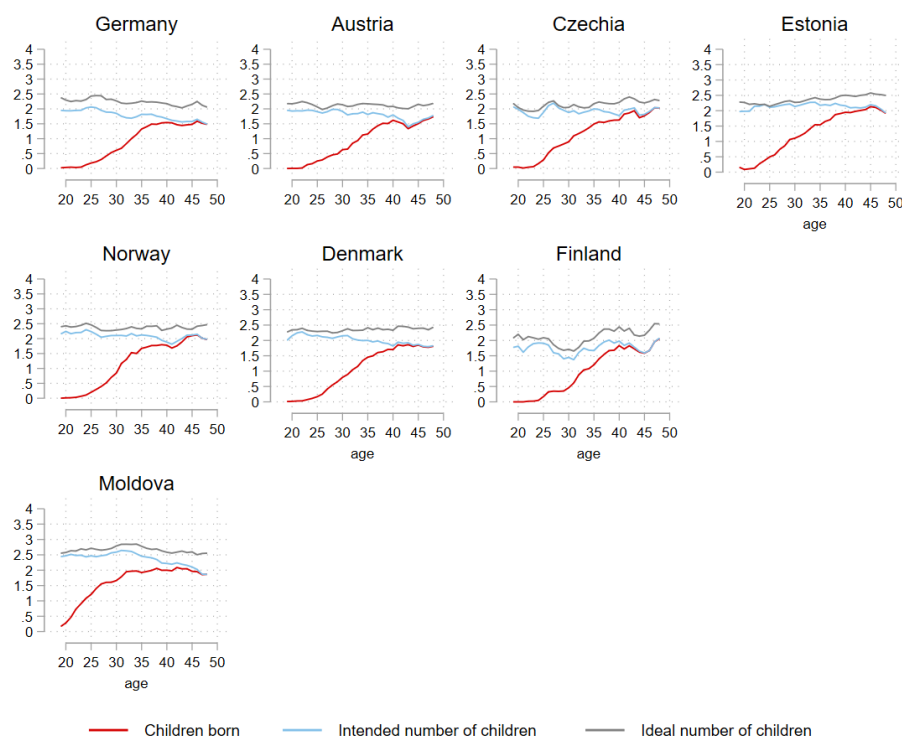
In descriptive analyses, we display the mean children born, mean intended number of children, and mean ideal number of children by age for women in eight countries under study and discuss differences in the two aggregate fertility gaps by age and country. It should be kept in mind that the individuals are not observed over time and differences by age thus do not correspond to changes over the life course, but are only an approximation of such changes. In a second step, we employ Poisson regression models for (1) the intended family size of young adults (18-29), and linear regression models for (2) the gap between intended and actual fertility in the phase of family formation (30-39), and (3) the gap between ideal and actual fertility at the end of the reproductive phase (40-49). All models are estimated with robust standard errors and include the following sociodemographic and socioeconomic variables: age, the level of education (low (ISCED 0-2), middle (ISCED 3-4), high (ISCED 5-8)), whether the woman is unemployed, her religiosity and whether she was born in the country of survey or elsewhere. In the GGS-II, respondents were asked to express their religiosity on a scale from 0 (not at all religious) to 10 (very religious), regardless of whether they belong to a particular religion. We

distinguish between low (0-2), medium (3-8), and high (9-10) religiosity, as has been done in previous studies (e.g., Buber-Ennser et al. 2018, Krapf et al. 2023). The models on intended number of children and the intended-actual fertility gap further include the partnership status (no partner, cohabitation, married) and the models on the ideal-actual gap control for whether the woman was ever married.

Findings

Descriptive statistics show that on average, women have between 0.96 (Germany) and 1.61 (Moldova) children. In Moldova, women desire, on average, the largest families (2.68 children). Across all other countries, the mean ideal number of children ranges from 2.13 (Austria) to 2.39 (Estonia). The number of children women actually intend to have is lower: In Austria, Germany and Finland the mean intended number of children is around 1.8 and in Czechia, Estonia, Denmark, and Norway women intend to have, on average, around two children. In Moldova, the mean intended number of children is highest (2.40).

Figure 1: Women's actual, intended, and ideal number of children, by age and country, 2020–2023.

Source: GGS-II Germany (2021-2022), GGS-II Austria (2022-2023), GGS-II Czechia (2020-2022), GGS-II Estonia (2021-2022), GGS-II Norway (2020), GGS-II Denmark (2021), GGS-II Finland (2021-2022), GGS-II Moldova (2020); three-year moving average, weighted data.

For all eight countries under study, Figure 1 shows the mean children born, mean intended number of children, and mean ideal number of children by age. Over all ages the aggregate gap to the number of children already born is greater for the ideal number of children than the intended number of children, which is in line with theory and previous research: Unlike fertility ideals, which are

influenced by motivational traits and genetic factors, fertility intentions are adapted over the life course due to potential constraints or personal circumstances (Iacovou and Tavares 2011). For women aged 40-49, the gap between the mean ideal and actual family size ranges from 0.43 to 0.60 across countries. For all countries, we see in Figure 1 that women's mean intended number of children and mean children born are (nearly) equal at the end of their childbearing years, suggesting that they adapt their child intentions to their biological chances of having a child at older ages. In contrast, ideal family size differs only slightly by age, aligning with the theoretical understanding of ideals as unaffected by situational circumstances, which is why they should be more stable over the life course.

Overall, the results from multivariate analyses show similar patterns across all countries. Educational attainment appears to play a role above all in the phase of starting a family; women with a higher level of education appear to be more likely to postpone having children, which is consistent with previous research. Moreover, all models confirm the strong relevance of partnership status for the intended number of children at a younger age, the intended-actual fertility gap in the family formation phase, as well as for the ideal-actual fertility gap from the age of 40. Religiosity appears to play a role in the intended number of children at the beginning of the life course; however, later on, there is no clear association across all countries for the postponement of fertility wishes and the fertility gap between the ideal and realized number of children between the ages of 40 and 49. For unemployment and whether a woman was born abroad or not, significant associations are only found in individual countries in some models.

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