

Fertility Expectations under Conditions of War and Flight: Ukrainian Refugee Women in Germany

Kerstin Ruckdeschel, Brienna Perelli-Harris, Nadja Milewski & Martin Bujard

This study examines fertility expectations among Ukrainian refugee women in Germany during the first two years of displacement following the Russian invasion in 2022. We investigate how experiences of uncertainty, family disruption, and the prospect of long-term residence in Germany shape reproductive outlooks under forced migration. Drawing on data from the Ukrainian Refugees in Germany Study, we focus on fertility expectations—understood as the realistically anticipated total number of children. Our analyses highlight the role of uncertainty, operationalized through “don’t know” responses, in shaping expectations. In particular, we examine how expectations vary by partnership status, partner location, and future settlement plans. Preliminary results show that childless women with a partner living in Germany and a plan to stay long term are more likely to expect having at least one child. In contrast, women who are unpartnered or whose partners remain abroad are significantly more likely to express uncertainty about their reproductive future. These findings suggest that migration-related disruptions, especially the separation from partners and unclear future prospects, constrain reproductive planning in the context of forced migration. We argue that ideational indicators such as perceived uncertainty must be more fully integrated into migrant fertility research. Recognizing the diversity of reproductive responses under conditions of displacement contributes to a more nuanced understanding of long-term demographic adaptation among refugee populations.

Extended Abstract

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1. Introduction and Research Background

Ukraine has a triple burden of population decline, which is a very special case in global demography: A combination of low fertility rates, high mortality (in particular of younger cohorts) due to war and extensive emigration (Perelli-Harris and Hilevych 2023). The full-scale Russian invasion of Ukraine in February 2022 has led to one of the largest refugee movements in Europe in recent decades. In Germany alone, around one million individuals from Ukraine have registered, the majority of whom are women and children. While previous demographic research on migrant fertility has primarily focused on voluntary migrants, recent scholarship has increasingly addressed fertility behavior among forced migrants and refugees (Saarela and Wilson 2022, Verwimp et al 2020, Castro Torres and Urdinola 2019). However, there remains a limited understanding of how crisis-related factors—such as war, displacement, and uncertainty—affect not only fertility behaviour, but also fertility ideals and expectations over time.

This paper investigates fertility expectations among Ukrainian refugee women in Germany during the first two years after their displacement. Our focus lies on the ideational dimensions of fertility, including fertility ideals, realistically expected family size, and uncertainty about future childbearing. In particular, we are interested in how refugee women's reproductive expectations are shaped by experiences of uncertainty—regarding their residential location between intending to stay in Germany and returning to Ukraine - and family situation—under conditions of forced migration.

2. Theoretical Considerations

Theoretical perspectives on fertility under crisis conditions, caused by war and displacement, point to competing mechanisms. On the one hand, the disruptive effects of war—particularly the spatial separation of partners, which leads to gendered flight patterns, along with health risks and economic insecurity—are expected to suppress fertility (Agadjanian 2018). Among Ukrainian refugees in Germany, where the vast majority of arriving adults are women and many are separated from their partners, such disruptions are especially pronounced (Milewski et al. 2023). On the other hand, heightened awareness of mortality and existential threat may prompt a re-evaluation of reproductive goals, potentially leading to pro-natalist shifts grounded in collective resilience or national demographic survival. Perelli-Harris et al. (2024) describe this ambivalence as a tension between "seizing the moment" in the face of uncertainty and the demotivating effects of prolonged instability, showing that both responses can co-exist within populations affected by armed conflict.

A key mechanism linking displacement and fertility is uncertainty, which affects both individual decision-making and future planning. Vignoli et al. (2022) emphasize that uncertainty—whether economic, legal, or relational—can undermine fertility intentions and expectations, particularly when individuals perceive limited control over their future. In the context of forced migration, uncertainty arises not only from precarious living conditions and unclear long-term residence prospects, but also from disrupted family structures and unclear

prospects of reunification. This uncertainty may lead to postponement or abandonment of reproductive plans, or, conversely, to a desire for stability and meaning through parenthood, depending on the subjective perception of the situation. Recent empirical evidence using GGS data for Europe shows that fertility intentions tend to remain stable during times of crisis, even though actual fertility behaviour has declined markedly in most European countries since 2015 (Friedrich and Bujard 2025).

3. Analytical Approach and Conceptual Distinction

Our analytical focus lies on fertility expectations, which we conceptually distinguish from both fertility ideals and intentions. Previous fertility research has emphasized the need to differentiate these ideational indicators, as they capture distinct aspects of reproductive decision-making (Kuhnt and Buhr 2016). While fertility ideals reflect abstract, unconstrained preferences about childbearing, and intentions often relate to concrete, short-term planning, expectations are defined as a hybrid concept: they incorporate personal desires, but also realistically account for perceived constraints and anticipated life conditions across the reproductive lifespan. Recently, fertility research has emphasized the importance to account not only for numerical answers, but also for so-called non-substantive answers like “I don’t know”. These answers were previously often excluded from fertility research, but newer studies suggest that they can be interpreted in their own right, as they express a general attitude towards family planning or are a function of uncertainty (Milewski and Mussino 2018).

The distinction between different items of the ideational dimension of fertility and various types of answers is particularly relevant in the context of forced migration, where uncertainty about family re-union and future prospects plays a central role. We treat expectations as the most empirically acceptable measure for assessing how refugee women adapt their reproductive outlook in response to displacement and instability.

Our study builds on the observation that the vast majority of adult Ukrainian refugees arriving in Germany are women, most of whom experienced family separation during flight. Only about 23% arrived with their partner, while 42% were single and 35% were in a union, but arrived without their partner (Milewski et al. 2023). In addition, the return intentions are lower in Germany than in many other countries (van Tubergen et al. 2024). These distinct flight constellations are crucial for understanding fertility-related expectations under displacement and inform several of the key explanatory variables in our models.

4. Data and Methods

We use data from the Ukrainian Refugees in Germany Study, a representative panel survey initiated by the IAB-BiB/FReDA-BAMF-SOEP consortium and continued by BiB/FReDA from wave 3 onward (Brücker et al. 2022). Our working sample comprises women aged 20 to 46 who participated in wave 6 (or wave 5 if missing). They arrived in spring 2022 and were still residing in Germany in 2025.

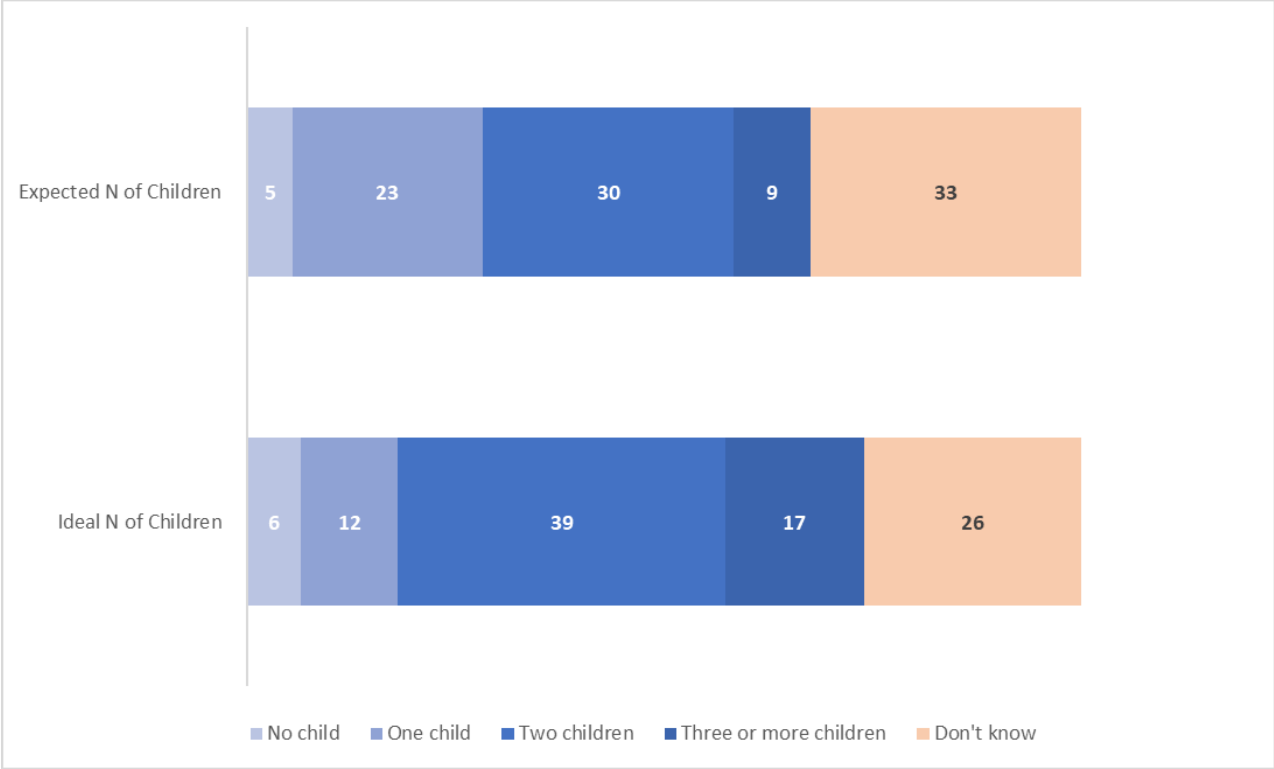
We analyze fertility expectations as reported in the survey, referring to the realistically anticipated total number of children, including those already born. To complement this, we also examine fertility ideals, defined as the number of children respondents would like to have under ideal, unconstrained circumstances. Descriptive analyses examine the distribution and gaps between actual, expected, and ideal fertility. We use multinomial logistic regressions to estimate the likelihood of reporting a fertility gap by parity. Key explanatory variables include age, partnership status, and indicators of uncertainty such as future settlement intentions.

In addition to numerical fertility measures, we include indicators of uncertainty, operationalized through "don't know" responses to questions about the expected number of children and the intention to stay in Germany. Furthermore, we use information on the partner's location (in Germany, in Ukraine, or elsewhere) as a proxy for relationship-related uncertainty. Women whose partners remain in Ukraine are more likely to experience instability in family life, which in turn may affect their ability or willingness to form concrete reproductive expectations.

5. Preliminary Findings

Preliminary results with wave 1 to 5 indicate that uncertainty — measured by the proportion of “don’t know” r responses — plays a significant role in how Ukrainian women report their fertility expectations and ideals (see Fig. 1). Initial multivariate analyses suggest that uncertainty is closely tied to partner location and certainty about future plans: childless women with a partner in Germany who plan for long-term residence are more likely to expect having at least one child. In contrast, women who are unpartnered or whose partners remain abroad more frequently express uncertainty regarding their reproductive future.

Fig. 1: Expected and ideal number of children in %



6. Discussion and Outlook

Our findings underscore the importance of integrating ideational indicators into refugee fertility research. The study shows how uncertainty and disrupted partnerships, on the one hand, and a re-evaluation of reproductive goals shaped by national war experiences, on the other, influence women’s reproductive planning in the context of forced migration. Given the fertility gap observed in fertility intentions, the timing of future births will be crucial for understanding long-term demographic adaptation of refugees.

7. References

- Agadjanian, V. (2018). Interrelationships of forced migration, fertility and reproductive health. *Demography of refugee and forced migration*, 113–124.
- Brücker, Herbert; Ette, Andreas; Grabka, Markus; Kosyakova, Yuliya; Niehues, Wenke; Rother, Nina et al. (2022): Geflüchtete aus der Ukraine in Deutschland: Flucht, Ankunft und Leben. Wiesbaden: Bundesinstitut für Bevölkerungsforschung (BiB).
- Castro Torres, A. F., & Urdinola, B. P. (2019). Armed conflict and fertility in Colombia, 2000–2010. *Population Research and Policy Review*, 38(2), 173–213.
- Friedrich, Carmen; Bujard, Martin (2025): Intended, ideal, and actual fertility in 11 European countries. Evidence on fertility gaps in different age groups from the Generations and Gender Survey. Bundesinstitut für Bevölkerungsforschung (BiB). Wiesbaden.
- Kuhnt, Anne-Kristin; Buhr, Petra (2016): Biographical risks and their impact on uncertainty in fertility expectations. Universität Duisburg-Essen. Duisburg.
- Milewski, Nadja; Décieux, Jean Philippe; Ette, Andreas; Bujard, Martin (2023): Gendered flight constellations and family-reunion intentions of female refugees from Ukraine: Evidence from a representative survey in Germany. In *CPE* 8 (2), pp. 250–263. DOI: 10.5771/2566-7742-2023-2-250.
- Milewski, Nadja; Mussino, Eleonora (2018): Editorial on the Special Issue “New Aspects on Migrant Populations in Europe: Norms, Attitudes and Intentions in Fertility and Family Planning”. In *CPoS* 43, pp. 371–398. DOI: 10.12765/CPoS-2019-10.
- Saarela, Jan and Ben Wilson, "Forced migration and the childbearing of women and men: A disruption of the tempo and quantum of fertility?", *Demography*, 59, 2022, DOI: 10.1215/00703370-9828869
- Perelli-Harris, Brienna; Gerber, Theodore; Hilevych, Yuliya (2024): Uncertainty and Fertility in Ukraine on the Eve of Russia’s Full-Scale Invasion: The Impact of Armed Conflict and Economic Crisis. In *Eur J Population* 40 (1), p. 28. DOI: 10.1007/s10680-024-09713-7.
- van Tubergen, Frank; Wachter, Gusta G.; Kosyakova, Yuliya; Kogan, Irena (2024): Return intentions among Ukrainian refugees in Europe: A Cross-National Study. In *International Migration* 62 (5), pp. 181–198. DOI: 10.1111/imig.13291.
- Verwimp, P., Osti, D., & Østby, G. (2020). Forced displacement, migration, and fertility in Burundi. *Population and Development Review*, 46(2), 287–319.
- Vignoli, Daniele; Minello, Alessandra; Bazzani, Giacomo; Matera, Camilla; Rapallini, Chiara (2022): Narratives of the Future Affect Fertility: Evidence from a Laboratory Experiment. In *Eur J Population* 38 (1), pp. 93–124. DOI: 10.1007/s10680-021-09602-3.