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Fertility intentions of Ukrainian women and men in Poland – to what extent do they depend on their perception of global uncertainties?

Motivation and research aims

Uncertainty and narratives of the future have been identified as a major determinant of fertility intentions (Vignoli et al., 2020). So far, the link between perceived uncertainty of the future and fertility intentions has primarily been studied among Western European societies, asking people about their reproductive intentions in the context of the observed uncertain economic situation (after the financial crisis after 2008), COVID-19 pandemic (Guetto et al., 2022) and climate change (Bisi et al., 2024), often using experimental design with vignettes presenting hypothetical future scenarios. Another approach to capturing the level of concern about various threats and sources of instability is the questionnaire module on the perception of global uncertainties developed for the Gender and Generations Survey by Andersson et al. (2020) and implemented in selected countries (Mussino & Comolli, 2024; Mynarska & Piekarska, 2024). Based on the analysis of the Swedish survey Neyer et al. (2022, s. 2) conclude that “the decision to have children seems less determined by factual circumstances and more by perceived (un)certainties and subjective imaginations of the future.” Mussino and Comolli (2024) found that in contrast with natives or other immigrants, non-European immigrants worrying about the future were more likely to have positive short term childbearing intentions.

In this analysis we want to better understand how people’s childbearing intentions may be related to their perception of global sources of uncertainty by examining this relationship among a nation (Ukrainians) already experiencing extreme uncertainty affecting their childbearing intentions (Perelli-Harris et al., 2024). Our case are around 2 million Ukrainians who have settled in Poland – including those displaced as a result of the full-scale invasion of their country by Russia on 24.02.2022 (Duszczuk et al., 2023). These Ukrainian women and men have recently and directly been subject to a range of threats and uncertainties, including war in their homeland, precarious legal status, and economic and social instability in their countries of origin and residence. Their current situation may affect their level of concern about more distant or hypothetical uncertainties and change its potential impact on childbearing intentions compared to the relationship among more secure populations.

Hence our research questions are:

RQ1. Which sources of uncertainty (security, economy, politics, society, environment) most worry Ukrainians living in Poland?

RQ2. What factors differentiate the perception of global sources of uncertainty?

RQ3. Do Ukrainians who worry more about future uncertainties, controlling for individual characteristics and family situation have lower fertility intentions?

RQ4. Does controlling for well-being (life-satisfaction) or optimism reduce the impact of the perceived sources of uncertainty on reproductive intentions?

Data and methods

We developed Ukrainian translation of the Generations and Gender Survey module on global uncertainties (Andersson et al., 2020) and included this set of questions in longitudinal survey on childbearing histories and fertility plans of Ukrainian migrants in Poland conducted on the internet research panel of the research programme “Between Ukraine and Poland” run by the University of Warsaw. Up to date we have analysed data from 1738 Ukrainian persons of reproductive age (adults up to 49 years of age) residing in Poland collected in wave 1, conducted in April-July 2024. Wave 2, on-going, was launched in October 2025 and has already collected over 680 answers from participants of wave 1 invited to complete the second survey, and will be included in the final EPC presentation. In addition, our contextual data are the results of the module being also implemented in Central European Social Survey conducted on internet research panels in six countries of the region in 2025.

The key independent variables were a series of 14 worries related to global issues based on Andersson et al. (2020) with one item of depopulation added to reflect the demographic problems in the country of origin (Perelli-Harris & Hilevych, 2023). The effect of the concern about uncertainties on child-bearing intentions was dually evaluated. Firstly, each individual uncertainty was isolated, and its effect was determined on child-bearing intentions via probabilistic regression. Next, we constructed a standardised cumulative uncertainty index (cf Gortfelder et al.(2024)) for use within the binary logistic regression models. The respondents' choices were first awarded “value” based on how worried the respondent was: 0 points for indecision (hard to say) or complete lack of worry, 1 point for “I don’t worry much”, 2 points for “I somewhat worry” and 3 points for “I worry a lot”. This cumulative score was then standardized to have mean 0 and standard deviation 1. Hence, any interpretation of our uncertainty index is related to the mean amount of worry amongst the survey population, not any individual value.

Our main dependent variable is positive plans of child-bearing intentions within 3 years indicated by a binary of respondents who selected “probably yes” or “definitely yes” to the survey question against respondents who did not. Secondly, negative child-bearing intentions were considered for binary logistic regression, with the binary including respondents who stated “definitely not” or “probably no” against all others. We control for individual socio-demographic characteristics and family situation indicators (childless versus parents, being in a relationship) and, in last step, for psychological traits (life satisfaction, optimism) which can affect the person’s perception of uncertainty regardless of objective situation.

Descriptive results

Our survey revealed that only 18.3% of all respondents of child-bearing age had positive child-bearing intentions within the next 3 years, with 5.8% of the total positive responses being the strongest intentions. This number is higher for men (25.5% total positive, 7.5% definitely yes), with women being closer to the mean (17.7% total positive, 5.5% definitely yes). Women notably also have much stronger negative intentions than men (42.1% total negative, as high as 27.1% definitely not).

As regards concern about uncertainties, the most common worries were about future armed conflicts, with 89% of child-bearing age respondents being very worried, about future generations’ prospects (58% very worried), about increasing crime (56% very worried), economic crises (56% very worried), and higher unemployment (54% very worried). In general, respondents were quite worried about all 14 issues, with the lowest level of concern being overpopulation, at 12%. Generally speaking, respondents were most worried about issues directly related to their safety (terrorism, armed conflicts, crime) and directly towards their well-being (economic crises, more unemployment, epidemics), and less worried about larger global

issues (climate change, overpopulation). War refugees were significantly more often than pre-war migrants very worried about terrorism (49% compared to 43%), while migrants were significantly more often very worried about weakened democracy (42% compared to 35% of war refugees) or political extremism (45% compared to 39% declaring highest level of concern).

Regression results

Using global uncertainty index, we ran the two prescribed binary models two times, once with satisfaction and optimism, and once without. We find the uncertainty index to only be marginally significant at a 10% significant level, with respondents with above-average overall uncertainty being 1.5% less likely to have positive child-bearing intentions and 1.9% more likely to have negative child-bearing intentions within the next 3 years. This effect is no longer significant when including satisfaction and self-rated optimism, although the magnitude change is very small. Respondents with higher self-rated optimism are more 4.0% more likely to have positive intentions and 5.3% less likely to have negative intentions. Including optimism and life satisfaction versus excluding these variables has only minor effects on the significance and magnitudes of the other variables' coefficients.

Other control variables are significant in both models. For example, with an increase in the number of children by one decreasing positive intentions by 7.1-7.4% and increasing negative intentions by 9.4-9.8%. Respondents with at least a Bachelor's degree are 4.1-4.3% more likely to have positive intentions and 6.3-6.6% less likely to have negative intentions. Some variables were only significant in one model. For example, female respondents are 8.3-8.5% more likely to have negative intentions, but have no significant effect on positive intentions. War refugees (those registered in Poland for a temporary protection status) are 8.1%-8.3% less likely to have positive intentions, but have no significantly different negative intentions. Finally, those with a partner co-residing with them in their Polish household are 4.0-4.3% more likely to have positive intentions, with no significant negative intentions.

Probabilistic regressions on the concern about particular uncertainties proved less fruitful, even when controlling separately for gender and family situation. Most results displayed no clear trend, with wide confidence intervals on all levels of concern about particular issues, hence, it is hard to conclude whether each individual uncertainty has any major effect on short-term child-bearing intentions. However, there were still some interesting findings. Firstly, concern about more armed conflict has a fairly flat trend for all levels of worry for women without children. However, for women with children, there is a potentially higher probability of positive intentions for those not worrying at all compared to other levels. For women without children, concern about overpopulation shows a downward fertility intention trend, with those uncertain having higher probabilities of positive intention (at 60%), and those worrying a lot having probabilities closer to 30%, although generally those between the two extremes have similar probabilities. In addition, concern about depopulation exhibits a slight upward trend for positive fertility intention, with respondents very worried about depopulation more likely to have a child within 3 years than those with lower or no levels of worry.

Future planned steps

In this ongoing study, by surveying the participants of the Ukrainian research panel again in autumn 2025, we envisage capturing whether and how, in the context of the ongoing war in Ukraine and for some - living under precarious temporary protection, their perception of global sources of uncertainty has changed and whether it has been linked to their fertility intentions. With passing time, we have expected the Ukrainians to feel more settled in Poland in terms on economic and household situation, which should encourage childbearing, especially among

the childless. However, political developments in Poland in 2025 have intensified anti-Ukrainian rhetoric and changes in their legal status, undermining their socio-economic security (including withdrawal of child benefit for the not employed parents). Moreover, not only global, but also regional security is more fragile, with incidents of Russian military drones breaching the territory of the host country (Poland). As a last step we envisage a more systematic comparison of Ukrainians in Poland with the general population in six Central-Eastern European countries (including Poland), joining efforts with our Centre's study implementing similar perception of uncertainties and fertility intentions questions in a set of internet surveys conducted in 2025. With the comparison we intend to verify if the effect of global uncertainties is similar among Poles (hence the source could be fears stemming from living close to the aggressor, not observed in Czech Republic or Germany) or unique for displaced Ukrainians (suffering from the consequences of full-scale war and insecure immigration status).

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