

# Migrants and natives' childbearing intentions in Sweden during the Covid-19 pandemic

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## Short abstract

The Covid-19 pandemic was first and foremost a health emergency but it led to considerable social, financial and labour market losses. Individuals may have adjusted their behaviour to the costs of the pandemic, postponing irreversible commitments, such as having children. Yet, the pandemic consequences have not been equally shared. Studies have shown that migrants have suffered greater excess mortality and job and financial losses compared to natives.

Migrants' Total Fertility Rate in Sweden registered a drop in 2021 compared to previous years. Part of the decline could be related to a more negative subjective perception of risk, due to the severe health and economic impact of the pandemic on migrants. Using the Swedish Gender and Generation Survey 2012 and 2021 we investigate the role of worries about economic and health issues related to the global pandemic in shaping migrants versus natives' short-term intentions to have a/another child.

## Introduction

The Covid-19 pandemic is first and foremost a health emergency but it also led to considerable social, financial and labour market losses. The duration of the consequences of the pandemic and the future prospects of societies severely affected by the prolonged crisis are uncertain, conditioning the ability of families to make plans about the future. Individuals may adjust their behaviour to the economic and health costs of the pandemic, postponing irreversible commitments, such as having children (Aassve et al., 2020; 2021; Charles-Edwards et al. 2021; Lappegård et al. 2020; Wilde et al. 2020).

Notably though the consequences of crises are not equally shared across socioeconomic groups (Castro Torres et al., 2022; Mamelund et al. 2021; Mamelund and Dimka 2021). Studies have consistently shown that in the aftermath of the pandemic migrants have suffered disproportionately more than natives in both health and financial terms, with greater excess mortality and job and financial losses. In particular, migrants have been at higher risk of COVID-19 infection, hospitalization and mortality than host country natives worldwide and in Sweden in particular (Andersson et al 2021; Aradhya et al., 2021). Migrants worked in jobs that were more at risk of spread of the disease as well as in sectors with greater risk of job loss during the pandemic (Billingsley et al., 2021; ILO 2021). At the same time, migrants were exposed to different sources of information, from both the country of origin and the destination country media narrative of the pandemic, which may have contributed to raise uncertainty among them (Aradhya et al., 2021). However, to the best of the authors' knowledge, little attention has been devoted to the investigation of whether Covid-19 affected differently men and women with migrant background, and in particular to how their childbearing decisions were influenced by the onset of the pandemic.

## Background

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In the European context, fertility intentions differ substantially between social groups, and among migrants, they differ depending on migrants' background (De Valk 2013; Hartnett, 2014, Kraus and Castro-Martin 2018, Milewski and Mussino 2018; Mussino et al 2021). Evidence from Sweden shows that the more positive short-term fertility intentions among first generation migrants compared to natives, tend to converge to destination country short-term intention patterns. The second generation reports intentions similar to non-migrants, while the 1.5 generation occupies an intermediate position (Carlsson 2018). Other studies have highlighted the importance of aspects related to integration, such as language proficiency and having a native partner in explaining the adoption of the host-country intention patterns among migrants and their descendants (Puur et al. 2018). Notably, short-term fertility intentions are also negatively affected by adverse economic conjuncture (Blossfeld and Hofmeister 2007; Busetta et al. 2019). Fiori et al. (2018) showed that over the years around the Great Recession, there was a convergence of native Italian women and women of another nationality to a similar 20% chance of not wanting a second child for economic reasons.

Differently from past crises episodes, the COVID-19 pandemic has brought about a health, social and economic crisis, significantly affecting individuals' life plans, especially long-term decisions such as having a child (Aassve et al. 2020; Anser et al. 2020). The overall economic downturn and the prospect of job loss created great uncertainty and stress, thereby depressing fertility intentions (Sobotka et al. 2011; Vignoli et al. 2020). Greater perceived uncertainty about the future makes couples reconsider pregnancy timing and fertility plans (Lin et al. 2021).

The pandemic had a major impact not only on people's physical health but also on their mental and sexual well-being (Gawrych et al. 2021; Zhou and Guo 2021, 2023), exacerbating fears and concerns and affecting couples' decision-making process about the right time to have children (Micelli et al. 2020; Malicka et al. 2021).

In addition, the pandemic has forced childcare facilities to temporarily close or reduce their work hours (Aassve et al. 2020), imposing a heavy burden on parents who may have, as a consequence, postponed their childbearing plans (Zhou and Guo 2023).

## **The current study**

The aim of the current study is to investigate the role of the economic, social and health dimensions of the Covid-19 crisis in shaping short term fertility intentions among migrant in Sweden compared to natives. The parity-specific Total Fertility Rate (TFR) in Sweden shows that among migrants, first birth rates declined substantially in 2021 compared to their trend in previous years. This could be due partly to a compositional effect due to the severely reduced arrival of migrants from high fertility countries, due to the pandemic restrictions, but it could be additionally related to the documented greater health and economic burden that characterised the unfolding of the pandemic crisis among migrants compared to natives.

More specifically the paper aims at illustrating, first, the subjective perception of the pandemic (past and future) for migrant and native born. Second, the study investigates whether and how the subjective perception of pandemic shaped differently short-term fertility intentions differently by migrant background. Finally, we describe short term fertility intentions before and during the recent pandemic among migrant women in Sweden compared to natives

We focus on short term fertility intentions because their role is pivotal in understanding the nuances of modern fertility patterns and they represent an indicative forecaster of future fertility actions

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(Ajzen 1991; Schoen et al. 1999; Rossier and Bernardi 2009; Testa 2014). Following Ajzen's theory of planned behaviour (TPB), that first established a connection between fertility intentions and actual fertility (Ajzen and Klobas 2013), we assume that individual choices are deeply embedded in their social surroundings and strongly influenced by their variation (Liefbroer 2011). Previous studies inspired from TPB emphasize the importance of considering shifts in societal attitudes, norms, and intentions, especially in unprecedented scenarios like the COVID-19 pandemic (Malicka et al. 2021). The instability and apprehension brought on by COVID-19 can conceivably have adverse effects on childbearing intentions (Malicka et al. 2021), which, in turn, may influence actual fertility actions in subsequent years. In turn, if this apprehension has been perceived differently from different social groups the effect on fertility intentions could also be different. However, most likely due to data scarcity, the literature on the impact of COVID-19 on fertility intentions is scarce and, to our knowledge, no study so far has investigated the effect by migrant background.

To fulfil our objectives, we resort to the Generation and Gender Survey (GGG) data from Sweden that allow investigating differences across respondents' social background and at the same time provide insights into which factors may have shaped fertility decisions during the pandemic. We use the two Swedish GGS of 2012 and 2021. First, we use the GGS 2021, which collected data during the 2021 summer, hence during the second year of the pandemic, and we investigate the association between worries about economic, social and health issues related to the global pandemic and migrants' and natives' intention to have a/another child during the following three years. Second, we supplement the analysis with the GGS2012 to contextualize our results within a long-term comparison of migrants' and natives' childbearing intentions across time, before and after the pandemic.

Sweden represents a pivotal case for the study of the factors that may have shaped childbearing considerations during the pandemic. As the measures to contain the pandemic were less invasive than in other countries (Esaiasson et al. 2021), especially early on during the pandemic, mortality in Sweden remained higher than in the other Nordic countries (Drefahl et al. 2020; Brandén et al. 2020; Kolk et al. 2022). Yet, despite the rising uncertainty, the increased death rates and the critical discussion around the government decisions to avoid severe restrictions, not only trust in the government and institutions but also interpersonal trust increased in Sweden during the pandemic (Esaiasson et al. 2021).

## **Data and Method**

We use the 2012 and 2021 waves of the Swedish Generation and Gender Survey (GGG), a survey representative for the Swedish population. The first wave was conducted between April 2012 and April 2013 (Thomson et al. 2015). The second wave was fielded in the spring 2021, so during the second year of the pandemic but after the mortality peak and during the first vaccination campaign. For both waves, we select heterosexual couples in which the woman is in the age range 18-44 and dropped observations for which the respondent or their partner cannot have kid or if they are already pregnant at interview.

All waves of the GGS serve as optimal instruments to explore the causes and consequences of changes in family and fertility dynamics. However, the Swedish GGS 2021 additionally incorporates a novel sub-module aimed at examining uncertainties and resilience, which includes inquiries concerning perceived effect of COVID-19 pandemic and general uncertainty due to global pandemics (Andersson et al. 2020). This inclusion allows exploring the correlation between perceived uncertainties, perceived impacts of the pandemic, and fertility intentions.

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The dependent variable is operationalized from the question about short-term fertility intentions: “Do you plan to have (more) children in the upcoming three years?” (with four possible responses: Definitely not, Probably not, Probably yes, and Definitely yes). In addition, we recoded as ‘Definitely yes’ the positive responses of respondents to the question, “Are you (and your current partner) currently attempting to conceive?” in 2021, and “Would you prefer to have a (another) child now?” in 2012.

Our principal explanatory variable is *Country of Birth*, categorized as Swedish Native or Migrant. For the initial part of the analysis, we draw our further independent variables from the newly implemented modules of the GGS 2021. The modules focus on “perceived global uncertainties” and on the effect of COVID-19 pandemic in the lives of both women and men compared to the period immediately preceding the pandemic, as these could have potentially influenced their childbearing intentions (Andersson et al. 2020; 2021). First, we consider the question, “Considering the future, how much does ‘Global epidemics’ concern you?”, with possible responses: Very worrying, Somewhat worrying, Not particularly worrying, or Not at all worrying. Second, we consider the question, “When comparing your present circumstances to those just before the emergence of COVID-19 in March 2020, would you say the subsequent aspects of your life have enhanced, deteriorated, or remained unchanged?”. The assessed life aspects are the following: 1) Sense of financial security, 2) Mental well-being, 3) Relationships with friends and family, 4) Satisfaction with work situation.

Finally, we control for age and age squared, gender, parity, educational level, partnership and employment status (controls are introduced in models in a step-wise fashion). In the final part of the analysis, in which we compare childbearing intentions between 2012 and 2021, we additionally control for the “Year of Interview”.

Consistent with prior research (see Thomson and Brandreth 1997, Billingsley and Ferrarini 2014 for discussion), the four potential responses pertaining to fertility intentions are processed as interval measures. This implies that we interpret the intention as a continuum that spans from “Definitely No” to “Definitely Yes.” Accordingly, linear models are appropriate. Confidence Intervals are computed applying the method established by Goldstein and Healy (1995), which ensures an average 5% level for type I errors in pairwise comparisons of a collection of means (i.e., with a confidence level of 83.5%).

## Preliminary Results

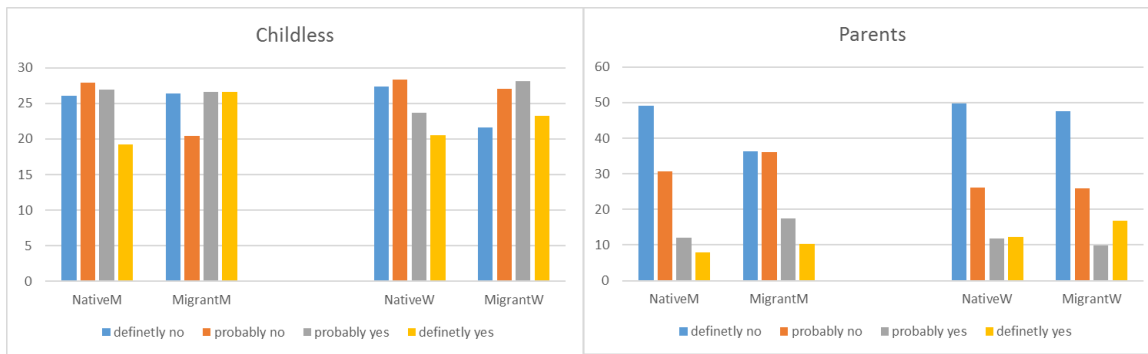
Preliminary descriptive findings show, as expected, more positive *first births childbearing* plans and intentions among both men and women migrants than natives in Sweden in 2021 (Figure 1). Although going in the same direction, the difference between natives and migrants’ second birth intentions is less sharp.

This holds true despite – as shown in Figure 2 – migrants being on average *more worried about the future* of the pandemic than natives and more frequently perceiving a *worsened financial security, work satisfaction and wellbeing* (and worsened relationships, not shown).

*Figure 1: Natives’ and Migrants’ short-term fertility intentions in Sweden in 2021.*

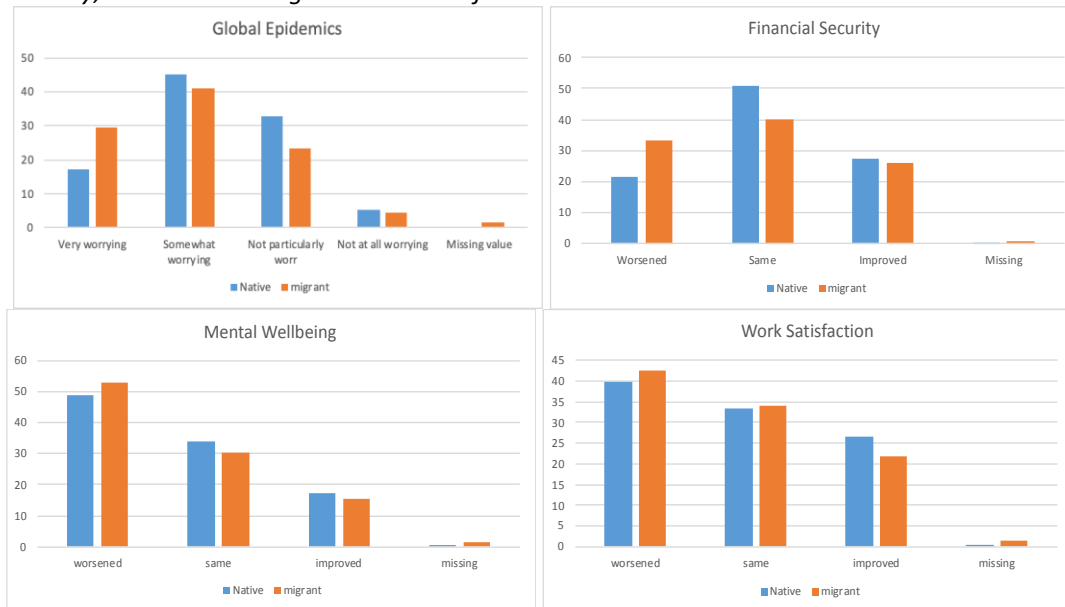
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Source: Elaboration of the authors based on GGS 2021.

Figure 2: Natives' and Migrants' concerns with the pandemic and changes from before the pandemic on financial security, mental wellbeing and work satisfaction.



Source: Elaboration of the authors based on GGS 2021.

Table 1 reports preliminary results regarding the association between respondents' country of birth and their probability of expressing positive childbearing intentions (for the sake of brevity, control variables are not reported in the table). Model 0 only controls for age (and age squared) and parity. Model 1 additionally controls for education, partnership status and employment status. Finally, each model labelled as Model 2 introduces one explanatory variable about perceived global uncertainty and the consequences of the pandemic, in interaction with the country of birth variable. Surprisingly, being *worried about the pandemic* plays a positive role in planning future fertility for migrants and a negative role for natives, even when we control for several dimensions of the subjective perception of the pandemic experience. Similarly, Table 1 shows that a worsened situation in terms of all the dimensions investigated also correlates with more positive intentions among migrants (statistically significantly for worsened mental wellbeing and worsened relationships). This result seems to be consistent across different outcome operationalizations (plans; intentions; positive/negative) and also across parities and partnership status (results not shown).

We expected that a more negative subjective perception of the future of pandemic and a more negative evaluation of its impact on respondents' health, social and financial conditions would even more negatively affect migrants' intentions, compared to Swedish natives. On the contrary, we

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found an effect of the «Now or Never» kind for migrants: being worrying about the future (even if adjusted for the present conditions) seems to encourage short-term childbearing intentions. These results do not rule out the possibility that the pandemic and the uncertainty it generated affected actual fertility, namely the realization of such childbearing intentions. For instance, some studies have argued that the Covid-19 pandemic may have impacted biological factors (e.g. sperm quality) (Montano et al 2021; Wang et al 2021; Abdelhamid et al 2021). This would explain in part why intentions are higher among migrants but TFR grew only among natives.

*Table 1: Linear models of childbearing intentions in the next three years. Sweden, 2021.*

	Model 0		Model 1		Model 2 Global Pandemic		Model 2 Financial security		Model 2 Mental Wellbeing		Model 2 Relationships		Model 2 Work Satisfaction	
	Coef	P>t	Coef	P>t	Coef	P>t	Coef	P>t	Coef	P>t	Coef	P>t	Coef	P>t
migrant vs native	0,13 *		0,19 ***		0,35 ***		0,14		0,19 **		0,17 *		0,07	
same vs worst							-0,05		0,09 *		-0,02		0,02	
improved vs worst							0,01		0,07		0,11		0,03	
migrant#same							0,15		-0,05		0,06		0,30 *	
migrant#improved							-0,12		-0,04		-0,11		-0,06	
Somewhat worrying					0,05									
Not particularly worrying					0,05									
Not at all worrying					0,25 *									
migrant#Somewhat worrying					-0,17									
migrant#Not particularly worrying					-0,31 *									
migrant#Not at all worrying					-0,46									

Source: Elaboration of the authors based on GGS 2021.

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