

# Convergence or Diversity? Trends and Patterns of Childlessness Across Low-Fertility Countries

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**Short Abstract:** The sustained declines in fertility across high-income countries have spurred attention to the role of childlessness, with demographic estimates showing rising levels of both involuntary and voluntary childlessness. However, it is not clear whether trends and patterns of childlessness are converging across low-fertility countries or whether there is persistent diversity. In this extended abstract, I combine data from the Human Fertility Database, the European Social Survey, and the Generations and Gender Survey to provide an overarching demographic perspective of trends in observed fertility (cohort childlessness, completed cohort fertility, and mean age at first birth), acceptability of voluntary childlessness, and intended and ideal lifetime childlessness. Results reveal substantial heterogeneity and persistent diversity across low-fertility countries, an increase in the acceptability of voluntary childlessness, and a significant gap between ideal and intended childlessness, suggesting barriers in translating fertility ideals into actual plans.

## Introduction

Across high-income countries, the proportion of individuals who do not have children by the end of their reproductive careers is increasing. The percentage of childless women born in the late 1960s cohorts is around 20% in central and southern European countries (Sobotka 2017), up to 30% in some East-Asian societies such as Japan and Hong Kong (Frejka, Jones, and Sardon 2010), and around 15% in the United States (Frejka 2017). High levels of childlessness are not a new demographic phenomenon. Among women born at the beginning of the twentieth century, who lived through the First World War during adolescence and the Great Depression and the Second World War across their childbearing years, childlessness levels ranged between 20% and 30% (Sobotka 2017). Throughout the twentieth century, the proportion of women remaining childless initially declined, reaching a minimum among those born in the 1940s (with a European average of 10.4% among women born in 1940), but it has since steadily increased among women born in more recent cohorts. Contrary to the high levels of childlessness observed at the beginning of the twentieth century, the recent increase in levels of childlessness has been observed in conjunction with declining fertility rates below replacement levels, sparking intense demographic and political debates (Gietel-Basten, Rotkirch, and Sobotka 2022; Kohler, Billari, and Ortega 2002).

A central demographic debate is whether the ongoing fertility decline is primarily driven by fertility postponement or by more fundamental shifting in individuals' values, particularly among younger cohorts. Demographic explanations of declining fertility rates and rising childlessness levels highlight increasing levels of both involuntary and voluntary childlessness. However, it is not clear whether trends and patterns of childlessness, and particularly in voluntary and

involuntary childlessness are converging or remaining heterogeneous across low-fertility countries. In this extended abstract, I provide an overview of trends and patterns in voluntary childlessness across low-fertility countries. In particular, I combine data from the Human Fertility Database, the European Social Survey, and the Generations and Gender Survey to provide an overarching analyses of trends in observed fertility (trends in cohort childlessness, completed cohort fertility, and mean age at first birth), trends in acceptability of voluntary childlessness, and patterns of intended and ideal lifetime childlessness. Results reveal substantial heterogeneity and persistent diversity in levels and trends across low-fertility countries, an increase in acceptability of voluntary childlessness and intended childlessness, and a significant gap between ideal and intended childlessness, suggesting barriers in translating fertility ideals into actual plans. In this extended abstract, I provide an overview of the role of childlessness in theories of demographic change and fertility goals to justify a focus on childlessness. The final paper will integrate the analyses with an extended literature review of empirical analyses.

### **Theoretical Perspectives on Demographic Change and Childlessness**

Demographic theories of fertility, although often not explicitly, predict an increase in voluntary and involuntary childlessness across high-income countries. According to the Second Demographic Transition (SDT), the ongoing demographic changes are driven by postmodern ideological changes. In particular, the SDT emphasizes a shift from the “king-child” to the “king-couple”, with children no longer among individuals' higher-order needs and not necessary for fulfilling relationships and lives (Lesthaeghe 2010). Under the SDT, small families and, arguably, voluntary childless families will increase globally (for a more recent comparative perspective around the globe, see Lesthaeghe 2020).

Sociological theories of modernity predict an increase in voluntary childlessness as well. According to Beck (1992), “the ultimate market society is a childless society.” Similarly, Giddens (1991) elaborated on the centrality of life planning and in modern societies, arguing that before making long-lasting decisions, like having children, individuals increasingly need to plan ahead and evaluate the benefits and costs of alternative futures.

A rational calculation between the costs and benefits of children is central to economic theories of fertility, especially regarding the quantity-quality trade-off and opportunity costs for childbearing (Becker 1960). In recent years, the expected “quality” required in child-rearing has increased, with intensive parenting ideals and high socio-emotional investments in children becoming the norm across all social strata (Ishizuka 2019). Similarly, the financial cost of childbearing is increasing (e.g., increasing housing costs, childcare costs, economic crisis, climate of uncertainty – e.g., Kornrich and Furstenberg (2012) show that parental spending on children increased significantly from the 1970s to the early 2000s), resulting in higher opportunity costs. The Great Recession amplified these factors, and there is evidence that the negative effects of the Great Recession have been particularly intense for childless

individuals/first birth postponement (e.g., Caltabiano, Comolli, and Rosina 2017). Therefore, economic theories of fertility predict an increase in childlessness.

The Great Recession also created a climate of uncertainty, which has become central in theories of fertility goals (Vignoli et al. 2020). Uncertainty related to perceived economic conditions, climate change, political turmoil, armed conflicts, and fear of the future reduces both overall fertility goals and achieved fertility.

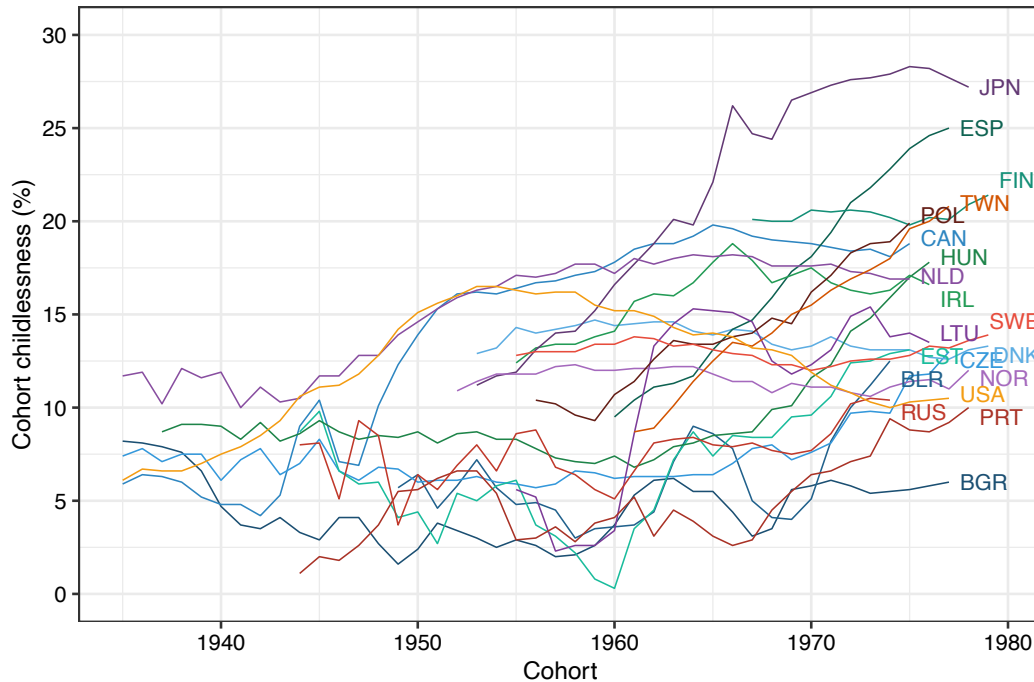
An alternative perspective to the SDT is based on the structural changes and the unfolding of the gender revolution (Esping-Andersen and Billari 2015; Goldscheider, Bernhardt, and Lappegård 2015). According to this perspective, the decline in fertility is driven by temporary mismatches between the structural changes of the gender revolution and limited ideational changes toward egalitarianism. When egalitarianism increases, fertility will increase as well, and accordingly, childlessness levels will decrease. As such, the gender revolution perspective explicitly predicts a decline, rather than an increase, in childlessness. However, many indicators suggest that the increase in gender egalitarianism is stalling across many contexts (England 2010). Countries with lowest-low fertility levels, such as South Korea, Japan, and Italy, show persistent traditional gender values. Under this scenario, many individuals will decide not to have children: “Some women in this circumstance [low gender equity] will opt to eschew the family role [...], that is, they will elect to have no children or fewer children than they otherwise would have intended” (McDonald 2000).

Finally, an increase in childlessness can also be driven by demographic factors *independently* of other structural or cultural changes. For example, cumulative evidence shows that postponed fertility is only partially recuperated at older ages and is associated with involuntary childlessness (Beaujouan 2023). As portrayed by Berrington (2004), “permanent postponers”, those who postpone childbearing for a protracted period, will eventually embrace a childfree lifestyle and voluntarily decide not to have children. For instance, research on “childlessness trajectories” shows that many individuals who eventually report not wanting or intending children wanted or intended children early in life (Gemmill 2019; Tanturri and Mencarini 2008). These demographic factors, such as postponed fertility and increasing involuntary childlessness, might also reinforce each other through self-reinforcing mechanisms and become drivers of demographic changes. This is the idea of the “low-fertility trap hypothesis” (Lutz, Skirbekk, and Testa 2006), according to which a decline in the number of children leads to both socio-demographic (higher old-age dependency ratios which results in lower economic growth and less social security for young people) and preference (lower ideal family size given by seeing previous cohorts with less children) changes that will in turn results to further declines in the number of children. Drawing from diffusion models of fertility (Montgomery and Casterline 1996), high levels of childlessness might lead to increased levels of childlessness. For instance, as childlessness levels increase, voluntary childlessness is expected to increase as well (Sobotka 2017).

## **Results**

## Cohort childlessness, fertility, and mean age at first birth

**Figure 1.** Trends in cohort childlessness (percentage of childless women calculated among those aged 44 per birth cohort).



Source. Human Fertility Database. Countries included in the figure: Bulgaria (BGR), Belarus (BLR), Canada (CAN), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), Hungary (HUN), Ireland (IRL), Japan (JPN), Lithuania (LTU), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Russia (RUS), Spain (ESP), Sweden (SWE), Taiwan (TWN), United States (USA).

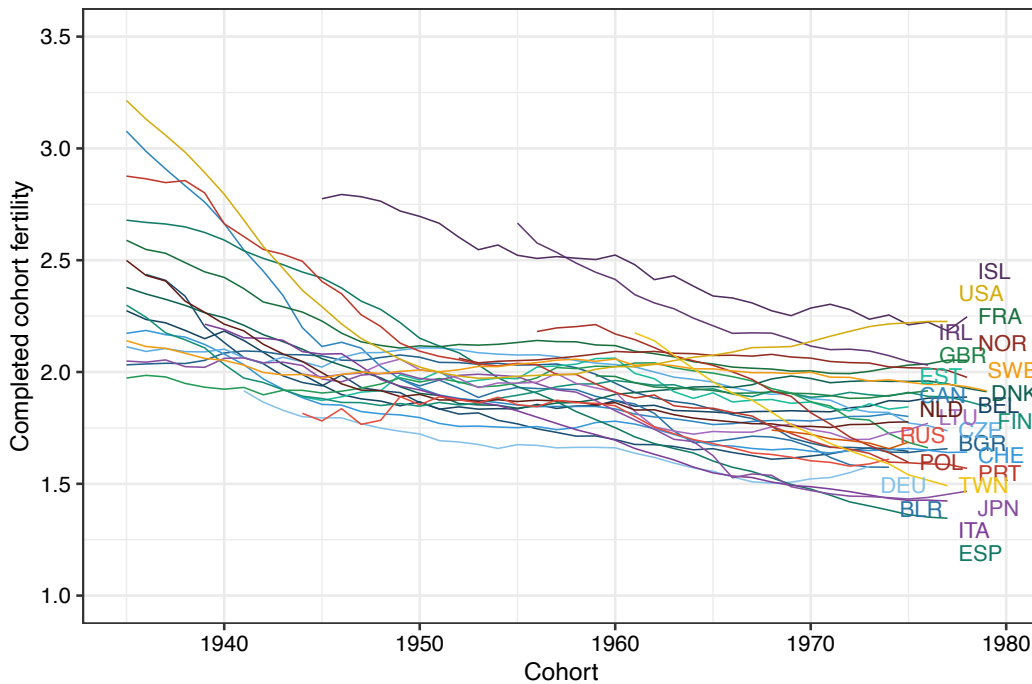
Overall, cohort childlessness, the proportion of childless women among those aged 44, increased across successive cohorts in most countries shown in Figure 1. However, there is substantial heterogeneity in both levels and trends. Among women born at the end of the 1970s, cohort childlessness ranges from 6.0% in Belarus, 10% in Portugal, and 10.5% in the United States to 21.4% in Finland, 25% in Spain, and 27.2% in Japan.

Some countries, including Spain and Taiwan, have experienced a rapid increase in cohort childlessness with little indication of slowing down. In Spain, for example, cohort childlessness increased from 9.5% among women born in 1960 to 18.1% among those born in 1970 and 25% among those born in 1977. In Japan, despite a rapid increase from 16.6% among women born in 1960 to 26.9% among those born in 1970, the pace of increase substantially decline, with cohort childlessness reaching 27.2% among those born in 1978.

In contrast, Nordic European countries such as Denmark, Norway, and Sweden show relative stability among recent cohorts. In Denmark, for instance, cohort childlessness was 14.4% among women born in 1960, 13.3% among those born in 1970, and remained 13.3% among those born

in 1979. As an exception, in the United States cohort childlessness declined from 15.2% among women born in 1960 to 10.5% among those born in 1977.

**Figure 2.** Trends in completed cohort fertility, average number of children born alive to women aged 44 per birth cohort.



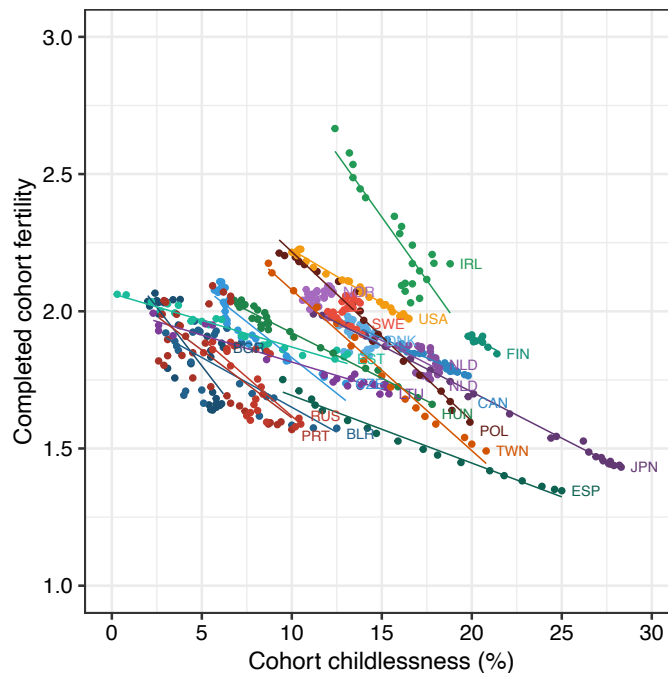
Source. Human Fertility Database. Countries included in the figure: Austria (AUT), Bulgaria (BGR), Belarus (BLR), Belgium (BEL), Canada (CAN), Czech Republic (CZE), Denmark (DNK), France (FRA), Estonia (EST), Finland (FIN), Germany (DEU), Hungary (HUN), Iceland (ISL), Italy (ITA), Ireland (IRL), Japan (JPN), Lithuania (LTU), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Russia (RUS), Slovenia (SVN), Spain (ESP), Sweden (SWE), Switzerland (CHE), Taiwan (TWN), United Kingdom (GBR), United States (USA).

In addition to declining period total fertility rates, completed cohort fertility, the average number of children ever born to women by age 44, also show a downward trend. However, similar to cohort childlessness, there is substantial heterogeneity across countries in both levels and trends. Among women born at the end of the 1970s, completed cohort fertility ranges from 1.35 in Spain, 1.42 in Italy, and 1.47 in Japan to 2.05 in France, 2.20 in the United States, and 2.25 in Island. Except for the United States and Island, completed cohort fertility is thus below replacement level in most low-fertility countries.

Southern European countries, including Spain, Italy, and Portugal, have experienced a rapid and continuing decline in completed cohort fertility. In Spain, for example, it declined from 2.15 among women born in 1950 to 1.75 among those born in 1960, 1.48 among those born in 1970, and 1.35 among those born in 1977. Taiwan exhibits a similar trend, with completed cohort fertility declining from 2.2 among women born in 1961 to 1.72 among those born in 1970 and 1.49 among those born in 1977.

Other countries, including Canada, Switzerland, and the Netherlands, experienced an initial decline in completed cohort fertility followed by stabilization among recent cohorts, around 1.80 in Canada, 1.65 in Switzerland, and 1.75 in the Netherlands. Nordic European countries, including Sweden, Norway, Denmark, and Finland, also show relative stability. In Sweden, completed cohort fertility was 2.01 among those born in 1950, 2.06 among those born in 1960, 2.00 among those born in 1970, and 1.92 among those born in 1979. However, there are signs of a recent decline in Nordic European countries as well, with Denmark reporting 1.91 among women born in 1979, Finland 1.85 in 1979, and Norway 1.98 in 1978.

**Figure 3.** Association between completed cohort fertility vs. cohort childlessness.



Source. Human Fertility Database. Countries included in the figure: Bulgaria (BGR), Belarus (BLR), Canada (CAN), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), Hungary (HUN), Ireland (IRL), Japan (JPN), Lithuania (LTU), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Russia (RUS), Spain (ESP), Sweden (SWE), Taiwan (TWN), United States (USA).

Figure 3 shows the association between completed cohort fertility and cohort childlessness, with each observation representing a birth cohort. Overall, there is a negative relationship: as cohort childlessness increases, completed cohort fertility declines. Although this negative relationship is observed across all countries, both the levels and slopes of the association vary substantially.

Across time and country, very different levels of cohort childlessness can correspond to the same level of completed cohort fertility, and vice versa. For example, a completed cohort fertility of 1.75 can coexist with a cohort childlessness ranging from 5% to 20%. Similarly, a cohort childlessness of 20% is associated with a completed cohort fertility of 1.8 in Finland but 1.4 in Spain. Countries also differ in the slope of the relationship. In some countries, such as Taiwan and Ireland, a relatively smaller increase in cohort childlessness is associated with a relatively

larger decrease in completed cohort fertility. In Nordic European countries, such as Denmark, Finland, Norway, and Sweden, the relationship is less clear, since there is little variation in completed cohort fertility and cohort childlessness, as shown in Figures 1 and 2.

The slope of the association between cohort childlessness and completed cohort fertility reflects differences in the distribution of cohort higher-order parity within cohorts. In some countries, such as the United States, cohort childlessness is compensated by a higher proportion of individuals with larger families, whereas in others, such as Spain and Japan, no such compensation occurs. Table 1 illustrates selected cases with cohort childlessness around 10%, 15%, and 20%. Among cohorts with childlessness of about 20%, Taiwan and Spain display lower completed cohort fertility than Finland and Canada because they have a higher share of one-child individuals a lower share of individuals with three or more children.

**Table 1.** Completed cohort fertility and distribution of cohort parity for selected countries.

Country	Cohort	Completed Cohort Fertility	Cohort parity 0	Cohort parity 1	Cohort parity 2	Cohort parity 3+	Cohort parity 1 + Cohort parity 2
Finland	1977	1.889	20.1	15.9	36.5	27.5	36
Taiwan	1976	1.516	20	24.3	42.6	13.1	44.3
Spain	1971	1.449	19.4	29.1	41.7	9.8	48.5
Canada	1975	1.801	18.8	18.1	39.6	23.5	36.9
Ireland	1961	2.346	15.7	11.3	28.6	44.4	27
Japan	1959	1.872	15.2	13.8	44.5	26.5	29
Taiwan	1969	1.764	15	19.5	43.6	21.9	34.5
USA	1962	2.034	14.9	18.6	34.5	32	33.5
Portugal	1978	1.569	10	38.5	40.1	11.4	48.5
USA	1974	2.215	10	19.3	34.3	36.4	29.3
Estonia	1970	1.866	9.6	29.1	37.9	23.4	38.7
Poland	1958	2.203	9.6	16	41	33.4	25.6

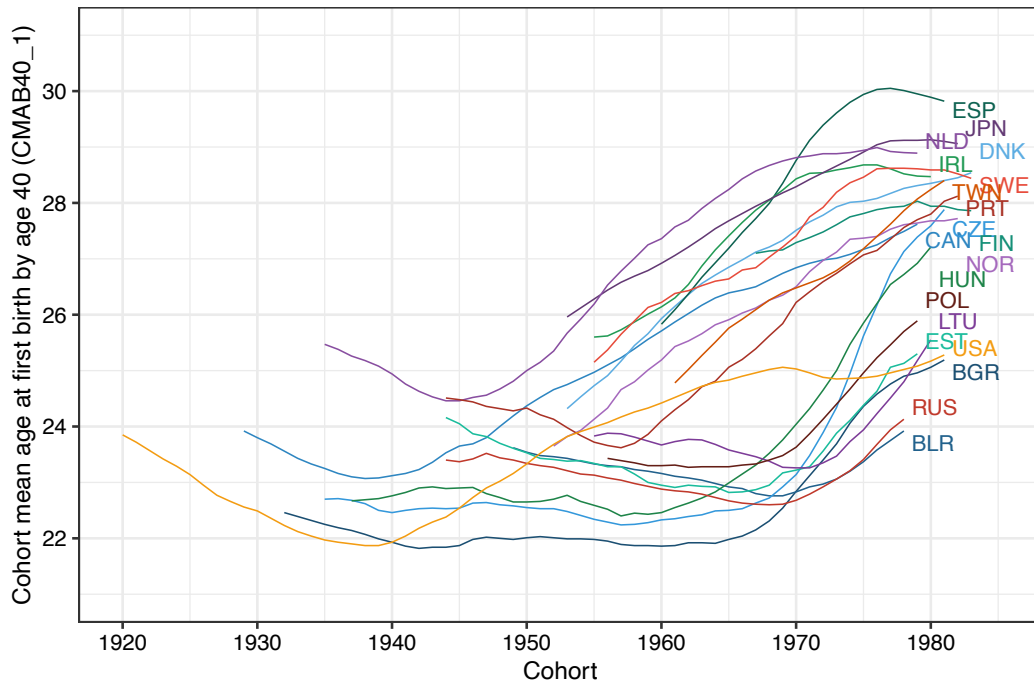
Source. Human Fertility Database.

An important debate among fertility scholar concerns the relationship between fertility postponement and childlessness. The cohort mean age at first birth increased across successive cohorts in most countries shown in Figure 4. However, there remains substantial heterogeneity across countries. Among women born in the late 1970s and early 1980s, the mean age at first birth ranges from about 24 years in Belarus and Russia to 29-30 years in Spain, Japan, and the Netherlands.

Several countries, including the Netherlands, Finland, Ireland, and Japan, show indication of stabilization after a marked increase across cohorts. In the Netherlands, for example, the mean

age at first birth increased from 25 among women born in 1950 to 28.8 among those born in 1970, but has since leveled off, remaining almost unchanged at 28.9 among those born in 1970. In contrast, countries such as Taiwan and Portugal continue to experience steady increases. In Taiwan, for instance, the mean age at first birth increased from 25.8 among women born in 1961 to 26.5 among those born in 1970 and 28.2 among those born in 1980.

**Figure 4.** Trends in cohort mean age at first birth by age 40 per birth cohort.



Source. Human Fertility Database. Countries included in the figure: Bulgaria (BGR), Belarus (BLR), Canada (CAN), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), Hungary (HUN), Ireland (IRL), Japan (JPN), Lithuania (LTU), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Russia (RUS), Spain (ESP), Sweden (SWE), Taiwan (TWN), United States (USA).

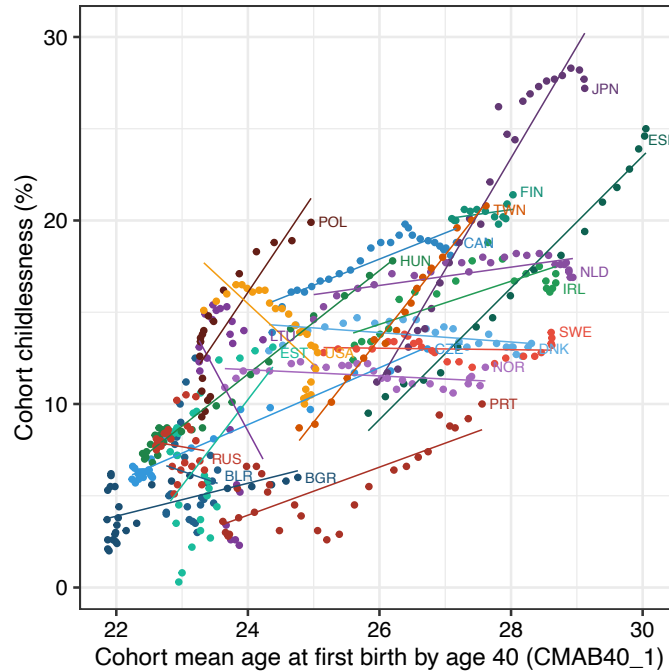
Figure 5 show the relationship between the cohort mean age at first birth and cohort childlessness, with each observation representing a birth cohort. Overall, there is a positive association between the two measures, although the strength and direction vary considerable across countries.

In lowest-low fertility countries, including Japan, Spain, and Taiwan, the association is strongly positive both the mean age at first birth and cohort childlessness has increased across successive cohorts. In contrast, Northern European countries, including Sweden, Denmark, and Norway, show a horizontal relationship. In these countries, despite an increase in the mean age at first birth, cohort childlessness has remained relatively stable. Other countries, such as Belarus, Lithuania, and Estonia, show a less clear relationship, as the mean age at first birth has only recently increased and show low variation. As noted in Figure 1, the Unites States represents an exception, since the mean age at first birth has increased at a slower pace than in other countries

and cohort childlessness has declined among recent cohorts while completed cohort fertility has risen.

Overall, the relationship between cohort mean age at first birth and cohort childlessness indicates that fertility postponement has different implications on cohort childlessness across countries.

**Figure 5.** Association between cohort childlessness and cohort mean age at first birth by age 40.

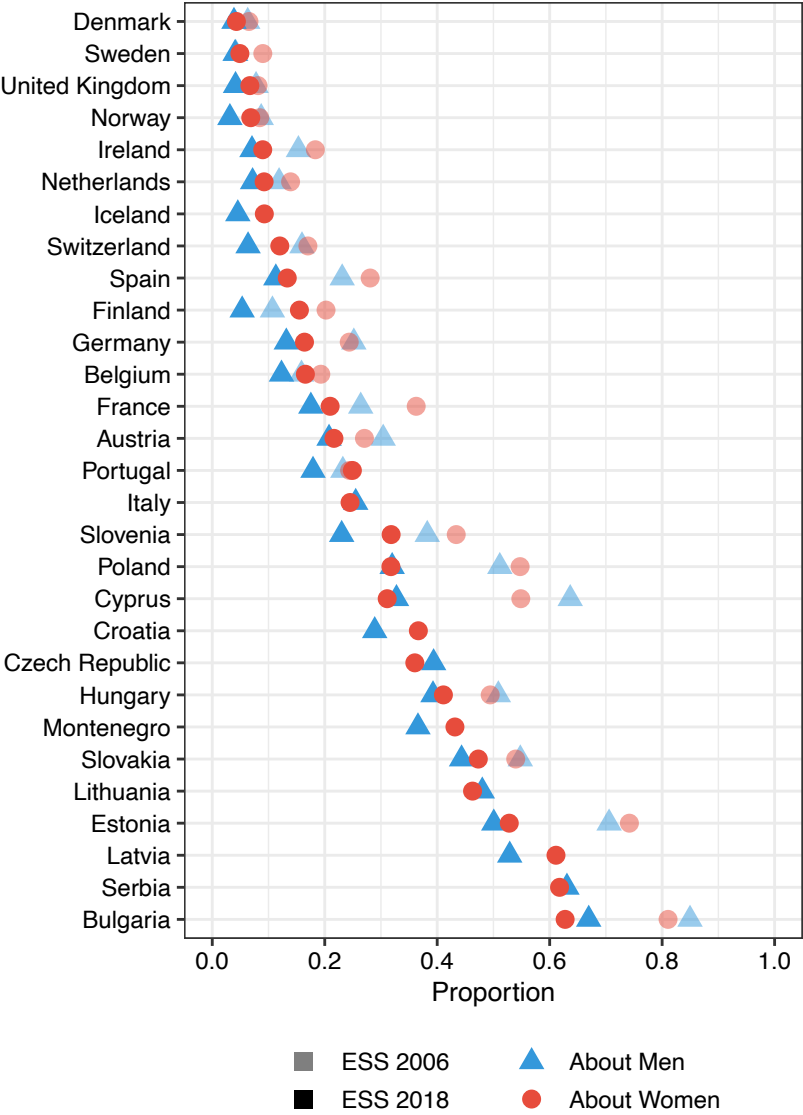


Source. Human Fertility Database. Countries included in the figure: Bulgaria (BGR), Belarus (BLR), Canada (CAN), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), Hungary (HUN), Ireland (IRL), Japan (JPN), Lithuania (LTU), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Russia (RUS), Spain (ESP), Sweden (SWE), Taiwan (TWN), United States (USA).

***The social context: approval and disapproval of voluntary childlessness***

Figure 6 shows trends in the proportion of respondents in the European Social Survey who disapprove if a man/woman choose not to have children. Across all countries, disapproval of voluntary childlessness declined from 2006 to 2018, but there is still significant variation across countries and gender. In 2018, the proportion of respondents who disapprove voluntary childlessness ranges from less than 4% in Denmark to more than 60% in Bulgaria. On the opposite, as shown in Figure A1 in the Appendix, the proportion of respondents who approve voluntary childlessness ranges from less than 10% in Bulgaria to more than 80% in Denmark. Although gender differences overall declined from 2006 to 2018, women who decide not to have children are disapproved more than men across most countries. Gender differences are more salient for approval, with marked gender differences across countries, including the United Kingdom, Switzerland, Portugal, Slovenia, Iceland, Sweden, Belgium, Finland, and Norway.

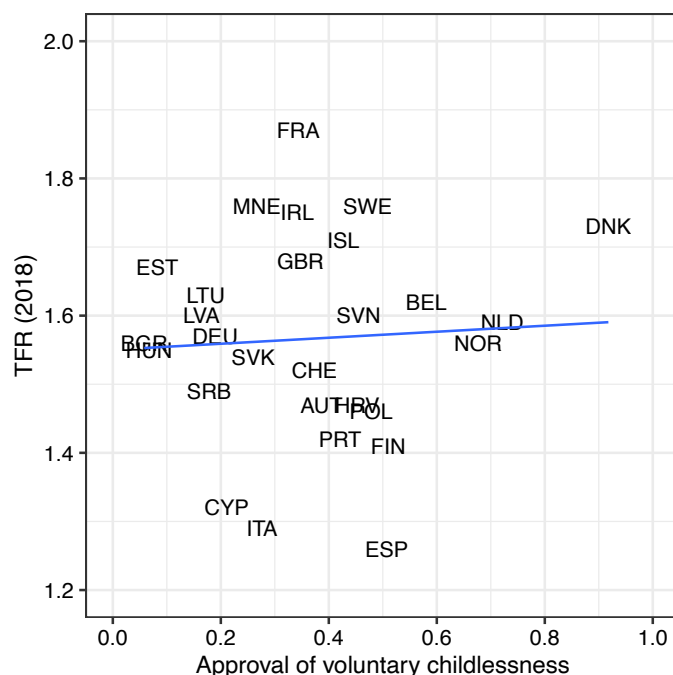
**Figure 6.** Trends in disapproval of voluntary childlessness 2006-2018. Proportion of respondents who disapprove if a men/women chooses never to have children. Weighted statistics.



Source. European Social Survey 2006 and 2018.

As shown in Figure 7, approval of voluntary childlessness is not significantly associated with the period total fertility rate.

**Figure 7.** Association between the total fertility rate in 2018 and approval of voluntary childlessness in 2018 (“about women” measure).



Source. World Bank and European Social Survey 2018. Countries included in the figure: Austria (AUT), Belgium (BEL), Bulgaria (BGR), Croatia (HRV), Cyprus (CYP), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), France (FRA), Germany (DEU), Hungary (HUN), Iceland (ISL), Ireland (IRL), Italy (ITA), Latvia (LVA), Lithuania (LTU), Montenegro (MNE), Netherlands (NLD), Norway (NOR), Poland (POL), Portugal (PRT), Serbia (SRB), Slovakia (SVN), Spain (ESP), Sweden (SWE), Switzerland (CHE), United Kingdom (GBR).

### *Patterns in voluntary and involuntary childlessness*

**Table 2.** Selected indicators of voluntary and involuntary childlessness. Weighted statistics.

Country	Intended lifetime childlessness among all respondents aged 20-44	Ideal lifetime childlessness among all respondents aged 20-44	Intended lifetime childlessness among all respondents aged 20-29	Ideal lifetime childlessness among all respondents aged 20-29	Not intended lifetime childlessness among all respondents aged 40-44	Not ideal lifetime childlessness among all respondents aged 40-44
Argentina						
Men	19.9	8.3	29.2	10.2	18.6	27.0
Women	23.4	9.2	34.0	12.0	4.1	10.2
Austria						
Men	15.6	5.2	16.3	6.2	11.5	21.5
Women	11.3	4.4	10.2	6.2	2.9	12.2
Croatia						
Men	11.6	2.8	14.6	3.9	17.1	25.8
Women	10.6	2.8	12.2	4.9	5.3	17.7
Czech Republic						
Men	2.4	1.1	5.8	2.5	4.4	5.8
Women	8.6	3.6	10.0	5.7	4.0	11.3

Denmark						
Men	15.9	6.2	16.9	6.8	5.9	12.6
Women	12.6	5.6	14.5	9.1	2.9	8.9
Estonia						
Men	9.5	3.6	12.1	6.6	10.9	18.6
Women	7.0	2.9	9.0	5.4	3.1	8.6
Finland						
Men	20.3	10.3	23.2	11.4	15.3	22.9
Women	18.2	9.8	19.2	10.2	5.0	15.8
France						
Men	11.6	4.3	15.0	5.4	9.7	17.1
Women	8.8	4.0	11.7	6.8	2.6	8.9
Germany						
Men	12.6	7.0	14.3	7.7	14.7	20.1
Women	9.8	6.3	10.3	7.4	5.3	10.1
Hongkong						
Men	37.1	9.4	54.9	13.5	22.4	36.1
Women	32.8	11.3	48.4	21.5	8.4	28.3
Moldova						
Men	2.0	0.5	1.6	0.8	13.5	18.2
Women	1.2	0.3	0.8	0.6	4.2	8.1
Netherlands						
Men	16.0	7.7	14.9	7.5	11.4	19.9
Women	12.8	7.4	11.3	7.4	2.0	10.3
Norway						
Men	11.0	4.1	14.5	4.7	5.4	13.3
Women	8.9	3.5	9.7	3.4	2.9	9.7
Sweden						
Men	16.4	a.	22.2	a.	5.7	a.
Women	11.2	a.	15.6	a.	1.3	a.
Uruguay						
Men	20.4	8.8	21.8	8.8	13.6	27.8
Women	13.4	5.8	13.2	6.3	5.0	16.6
Total N	75,034	70,452	26,309	24,685	15,931	14,857

a. Personal ideal number of children is not available for Sweden.

Source. Generations and Gender Survey (GGS) Round 2, Wave 1 (2020-2024).

Using data from the first wave of the second round of the Generations and Gender Survey, I compute some key indicators of voluntary and involuntary childlessness. In particular, in order to estimate the levels of voluntary childlessness, I compute the proportion of intended and ideal lifetime childlessness among all respondents aged 20-44. Intended childlessness refer to the proportion of individuals who don't have children and don't intend to have children, neither in the short-term nor later. Similarly, ideal childlessness is defined as the proportion of individuals who don't have children and report a personal ideal number of children equal to zero. The first measure, intended lifetime childlessness among all respondents aged 20 to 44, ranges from 1.2% in Moldova to 32.8% in Hongkong among women, and from 2.0% for men in Moldova to 37.1% in Hongkong for women. The second measure, ideal lifetime childlessness among all respondents aged 20 to 44, ranges from 0.3% in Moldova to 11.3% in Hongkong for women, and from 0.5% in Moldova to 10.3% in Finland for men. Importantly, intended childlessness is always greater than ideal childlessness, suggesting that some individuals experience barriers in

translating their personal ideals to actual intentions. In Hongkong, for example, 37.1% of men aged 20-44 intend to remain childless, but only 9.4% think is ideal for them.

Among respondents aged 20-29, the difference between intended and ideal lifetime childlessness is more marked, and both intended and ideal lifetime childlessness are greater than among those aged 20-44. This might suggest both life course and cohort differences. The final EPC paper will include estimates of intended lifetime childlessness from the first round of the Generations and Gender Survey to provide an analyses of trends over time.

Finally, Table 2 shows the proportion of respondents aged 40-44 who don't have children and intend to have children and the proportion of respondents aged 40-44 who don't have children and do not think childlessness is ideal for them. These are two measures of unrealized fertility. The first measure ranges from 1.3% in Sweden to 8.4% in Hongkong for women and from 4.4 in Czech Republic to 22.4% in Hongkong for men. The second measure ranges from 8.1% in Moldova to 28.3% in Hongkong for women and from 5.8% in Czech Republic to 36.1% in Hongkong for men. These estimates suggest that a significant proportion of men and women aged 40-44, up to 28.3% for women in Hongkong, is involuntary childless.

### **Next Steps for the EPC Final Paper**

The final EPC paper will (i) provide an extensive literature review of childlessness across low-fertility countries, (ii) refine the analyses by including indicators from the Generations and Gender Survey (GGS) Round 1, and (iii) present a detailed discussion and result sections.

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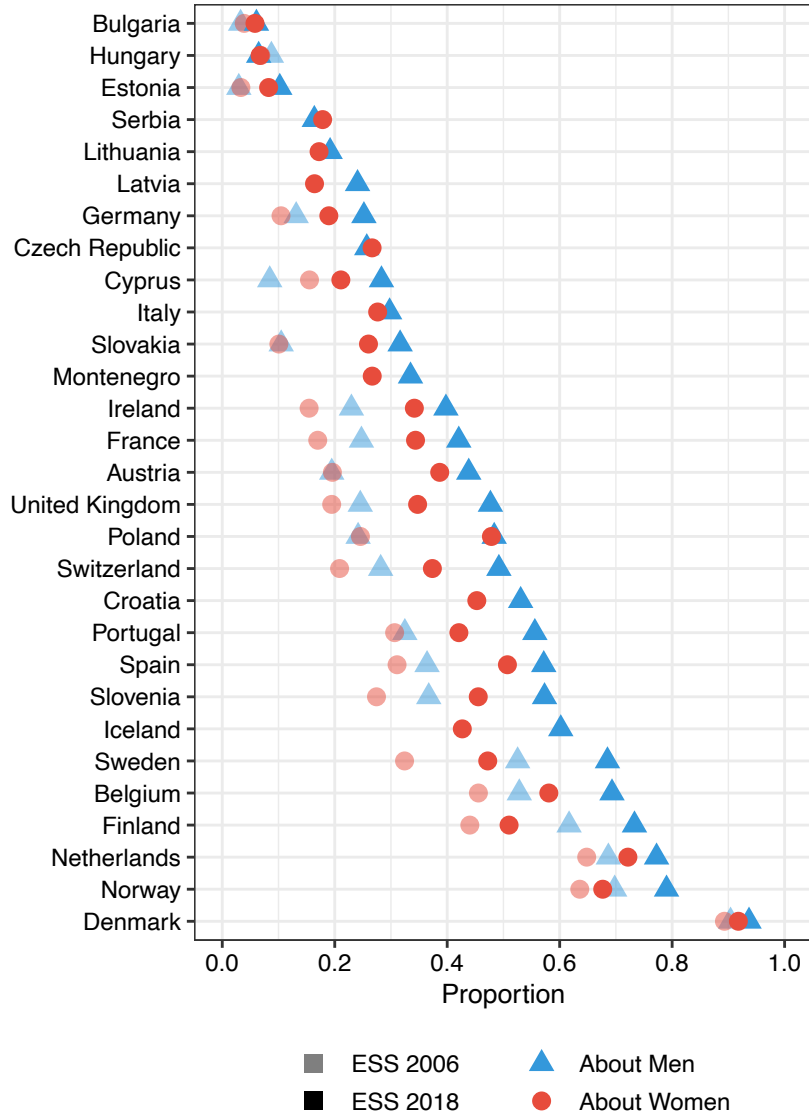
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## Appendix

**Figure A1.** Trends in approval of voluntary childlessness 2006-2018. Proportion of respondents who approve if a men/women chooses never to have children.



Source. European Social Survey 2006 and 2018.