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Veröffentlichungsversion / Published Version

Zeitschriftenartikel / journal article

Empfohlene Zitierung / Suggested Citation:

Billingsley, S., & Oláh, L. (2022). Patterns of Co-Residential Relationships Across Cohorts in Post-Socialist Countries: Less Time for Childbearing? *Social Inclusion*, 10(3), 87-99. <https://doi.org/10.17645/si.v10i3.5201>

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Article

Patterns of Co-Residential Relationships Across Cohorts in Post-Socialist Countries: Less Time for Childbearing?

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Submission: 21 December 2021 | Accepted: 20 April 2022 | Published: 30 August 2022

Abstract

Co-residential partnerships are a pre-condition for childbearing and less time is spent in these unions when there is difficulty finding partners, a delay in union formation, and partnership instability. Our study explores patterns in co-residential partnerships across birth cohorts in 11 post-socialist countries to assess changes in the number of years spent in these partnerships and the patterns underlying any trend. Using the Harmonized Histories dataset, based on partnership data from generations and gender surveys, we calculate changes in co-residential union trends. In about half of the countries, the share of women who have not entered a co-residential union by age 30 increased, whereas the proportion still in their first union by this age decreased universally. The latter trend, reflecting union instability, pre-dates the transition from socialism. Delays in starting the first union were seen in only a few countries immediately after the transition began but more countries experienced union postponement in coming-of-age cohorts in the 2000s. A declining median age at first union in the former Soviet republics before and immediately after the transition from socialism balances the impact of increased union instability. Overall, the number of years spent in a co-residential union before age 30 declined across the Central and South-Eastern European countries, especially in Hungary. Union dynamics may have contributed to declining fertility in these countries. In contrast, little or no change in time spent in unions in the post-Soviet countries indicates that union dynamics were less likely to have influenced these women's fertility behavior.

Keywords

co-residential union; fertility; partnership instability; post-socialist countries; union formation postponement

Issue

This article is part of the issue “Fragile Pronatalism? Barriers to Parenthood, One-Child Families, and Childlessness in European Post-Socialist Countries” edited by Ivett Szalma (Centre for Social Sciences, Hungarian Academy of Sciences Centre of Excellence / Corvinus University of Budapest), Hana Hašková (Institute of Sociology, Czech Academy of Sciences), Livia Oláh (Stockholm University), and Judit Takács (Centre for Social Sciences, Hungarian Academy of Sciences Centre of Excellence).

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1. Introduction

Finding a partner and moving in together is one of the most significant rites of passage into adulthood. It reflects successful relationship building and sufficient resources on which two people can build an independent life together. Also, offspring are usually born in co-residential unions (Kiernan, 2001; Thomson, 2005). Delays in union formation and instability of unions can

thus influence childbearing by reducing time spent in the setting most conducive for family formation and expansion. In contexts with few births out of a union, demographers would think of co-residential unions as the relevant “exposure” to understand childbearing (see, e.g., Hellstrand et al., 2022). This study explores changes over time in co-residential union dynamics across 11 post-socialist countries in a period of dramatic fertility decline (Billingsley, 2010; Billingsley & Duntava,

2017; Frejka & Sobotka, 2008), with an eye on whether changes intensified around the transition from socialism or maintained a steady pace. This descriptive analysis can inform our understanding of the potential relevance of union dynamics for declining fertility rates as well as offer an insight into the changes confined to this sensitive coming-of-age period in individuals' lives.

Many studies on individual countries in our selected group have documented the delay in union formation or the increase in union instability (see, e.g., Frejka, 2008; Hoem et al., 2009; Puur et al., 2012). In addition, we have often seen the importance of being in a union for childbearing in single-country case studies (Aassve et al., 2006; Baranowska-Rataj, 2014; Philipov & Jasilioniene, 2008; Puur & Klesment, 2011). These comparative and case study analyses give, however, only a partial picture on their own of how fertility may be influenced by union dynamics. Likewise, micro-level studies of fertility that include partnership status cannot tell us how the lack of a partner has changed over time, possibly affecting fertility development. The main contribution of this article is that we focus on the combined role of partnership dynamics in generating a set number of years women have spent in a co-residential union during their twenties, which is the age range women are most likely to have children in the region of interest. Specifically, we explore from a cohort perspective and using comparable measures whether the timing of entering a first co-residential partnership has increasingly been delayed, whether the share of people never entering a union by age 30 has increased, and whether the share of people still in their first union at the age of 30 has declined. Finally, we track how much union delay and instability have resulted in a decline in the total number of years spent in a co-residential union before the age of 30.

We use partnership histories from harmonized surveys conducted in the first decades of the 2000s. To observe the most recent cohorts possible, and get the best sense of how partnership dynamics are changing recently, we narrow our focus to what happens by the age of 30. To maximize our capacity to capture the most recent trends, we focus exclusively on women, who enter unions earlier than men. Finally, we do not consider whether unions are marital or non-marital, as this factor varies in importance to births over time and across our countries (Frejka, 2008; Thornton & Philipov, 2009). It may be that in some countries union timing and length did not change, but more time is spent in a non-marital union preceding marriage in which case it matters if childbearing remains confined to marriage or not (see, e.g., Andreev et al., 2022; Hărăguș, 2015). To account for such differences we would need to model how specific union type relates to births, whereas our interest here is union dynamics more generally and possible implications of union dynamics for fertility.

2. Background

2.1. Postponement and Instability of Co-Residential Unions

All of the processes in which we are interested in this study are considered to be main features of the second demographic transition (SDT) that is argued to lead to diverse family configurations and fertility rates (well below population replacement levels (Lesthaeghe & van de Kaa, 1986)). The SDT is stimulated by ideational change centered on individualization that leads to stronger desires for self-actualization and was made possible by three revolutions: a contraceptive revolution, a sexual revolution, and a gender revolution. Combined, the three provided women with nearly complete control over their childbearing, strengthened their autonomy from men both economically and socially, and relaxed the need for marriage (Lesthaeghe & Surkyn, 2004). As a consequence of these revolutions and the value transformations that accompanied them, pronounced changes in family patterns emerged throughout Europe, with little historical precedence, especially, in the former socialist countries, triggering governments' concern and sometimes pronatalist policy responses (Goldstein et al., 2009; Sobotka, 2008).

In line with family changes as an outcome of the SDT, we would expect to see the life course of adults follow more heterogeneous paths, according to individuals' preferences. Indeed, we have seen cohort change from a pattern of "early, compacted, and simple" to "late, protracted, and complex" (Billari & Liebroer, 2010). This corresponds to foregoing or at least postponing marriage and childbearing, having fewer children overall, and less enduring partnerships. Even though the desire to form a household with a partner exists, ideational changes notwithstanding, the sense of urgency and the norms that structure the timing of this event have likely changed according to the theory. Moreover, ideas about love and partnership may have shifted toward what Giddens (1992) refers to as the "pure relationship," whereby partnerships are formed to meet one's own desires and expectations. These criteria may be more difficult to meet, thus delaying the process of finding a stable partner.

Another set of mechanisms are highlighted in the literature on economic uncertainty, linking the phenomenon both to the postponement of family formation (including both starting a co-residential union and having children) and partnership stability (see, e.g., Alola et al., 2020; Blossfeld et al., 2005; Vignoli et al., 2020). Accordingly, individuals who gained independence via the gender and sexual revolutions may face economic barriers due to, for example, pronounced labor market uncertainties that restrict opportunities for moving in together or leaving an unsatisfactory co-residential union. There is little research specifically on co-residential union avoidance or postponement, but

much on marriage. In line with Oppenheimer's (1988) argument on uncertainty about men's future earnings being a barrier to marriage, the research indeed shows that when economic prospects are poor for men, marriage is delayed (for Europe see, e.g., Kalmijn, 2011; for the US see Oppenheimer, 2003). In contrast, the economic context can affect divorce positively or negatively. Difficult economic circumstances due to unemployment or a decline in household income increase conflict in relationships related to stress accumulation (Conger et al., 1990); Fischer and Liefbroer (2006) found higher dissolution rates when consumer confidence declined. Poor economic conditions can however increase the costs of separation and living independently, which is why we often see that divorce rates are pro-cyclical (Amato & Beattie, 2011; Schaller, 2013).

2.2. Union Dynamics and Fertility

The relationship between union dynamics and fertility can operate due to both processes responding to the same mechanisms. As highlighted above, the SDT and economic considerations are key in the theoretical discussions of union postponement and instability, as well as childbearing. In this sense, the determinants of delaying a co-residential union are the same determinants of delaying childbearing. Alternatively, the relationship between union dynamics and fertility can operate mechanically in contexts without high adolescent fertility. As childbearing is closely linked to partnership, there is simply a shorter amount of time to have the children one might wish to have if beginning co-residential unions later in life or ending them earlier. This has generated various branches of research.

One relevant body of research is that specifically on childlessness. Mynarska et al. (2015) show the diversity of the paths that lead to childlessness in terms of educational attainment, labor market experiences, and union histories for the cases of Italy and Poland. Klímová Chaloupková and Hašková (2020) show that never being partnered is a main pathway to childlessness in the Czech Republic. Similarly, the risk of childlessness increases with the number of years one remains without a partner (Keizer et al., 2008). In Norway, both those who have a late entrance into a first union that is short-lived and those who do not quickly enter a union—or have many short unions—have a higher risk of remaining childless (Hart, 2019). Turbulent partnership histories in Germany were also linked to childlessness (Kreyenfeld & Konietzka, 2017), as was never partnering (Raab & Struffolino, 2020). In Finland, both fragmented and empty co-residence histories were linked to childlessness (Jalovaara & Fasang, 2017).

Another branch of research focused on the implications of divorce for fertility rates. That union dissolution leads to lower fertility overall has been established in different country contexts (Winkler-Dworak et al., 2017). Thomson et al. (2012) also take into account changes

in the timing of union formation. Partnership dissolution opens the door to a new partnership, which may offer an incentive for additional childbearing, regardless of the parity already reached. Assessing the contribution of multi-partner fertility to total fertility as a response to the expectation that unstable unions would naturally lead to fewer children, Thomson et al. (2020) find that childbearing within a second (or later) union comprises only a small share of total childbearing (up to 9%) in 14 European countries.

2.3. Post-Socialist Research

Post-socialist countries can be considered as ideal contexts for the theoretical pathways for change in union dynamics, involving individualization and uncertainty. With the collapse of the socialist system, norms and institutional structures shifted dramatically and rapidly. But the changes were not uniform. From a remarkably similar set of conditions in the 1980s, this set of countries underwent individual processes of identity and nation-building, market reforms, and policy development. In addition, the transformation was accompanied by worsening economic conditions that were either brief or protracted, depending on the context (Gimpelson, 2001). In other words, we should not expect the countries to form a cohesive group on anything besides a shared history of state socialism. Indeed, we should expect that institutional developments affected the degree of individualization (Esping-Andersen, 2007) if we extrapolate from existing comparative European research (Mayer, 2001). When addressing their family dynamics we also need to take into account the massive emigration of young people from this region, especially Poland, Romania, and Bulgaria, to Western and Northern Europe (e.g., Black et al., 2010).

In the literature on (or including) post-socialist countries, many of the same countries in this study have been addressed, sometimes comparatively, showing a delay in marriage and union formation, with much focus on the shift from marital to non-marital unions and childbearing (Andersson & Philipov, 2002; Andersson et al., 2017; Billari, 2005; Hoem et al., 2009; Puur et al., 2012; Sobotka & Berghammer, 2021).

Increases in divorce risk or rates in post-socialist countries have been documented in studies on Bulgaria (Philipov & Jasilioniene, 2008), Hungary (e.g., Spéder & Kamarás, 2008), Romania (Mureşan et al., 2008), and Russia (e.g., Solodnikov, 2016). To date, the only comparative research on divorce has been Philipov and Dorbritz's (2003) study based on aggregated data and Härkönen et al.'s (2020) study based on individual-level data. Both studies argued that the transition from state socialism did not lead to a clear divergence from previous divorce trends. Our research addresses union instability more broadly and not just divorce; if we were to extrapolate based on divorce trends, which may or may not be indicative, previous findings imply that the contribution

of union instability to time spent in unions is likely to vary across the countries we study and will not necessarily be tied to changes occurring after the transition from socialism began.

Based on the literature to date, no clear expectations can be drawn about which union dynamic trends will generate the most change over time, nor in which countries they will be strongest. As all countries included here experienced a fertility decline during the 1990s, there is potential for union dynamics to have changed in all countries if we assume they are linked. Approaching the question from this angle (i.e., how fertility may have been influenced by union dynamics), it is worth considering differences concerning the fertility decline. Two different patterns of fertility decline have been identified, whereby some post-socialist countries (a) maintained a relatively early age at parenthood but saw a decline in second and higher parity births, while others (b) experienced more postponement of parenthood but kept similar levels of second and higher parity births (Billingsley, 2010; Billingsley & Duntava, 2017; Spoorenberg, 2015). The latter pattern appears more commonly in countries that were not former Soviet republics and that experienced more rapid and successful economic transitions (Billingsley, 2010; Sobotka, 2003). If union dynamics contributed to fertility decline, we might expect delayed union formation to be the dominant contributor to fewer years in a union in countries with pronounced fertility postponement, whereas this is less likely to be the case where unions are not postponed. We might instead expect to see union instability shorten the years spent with a co-resident partner where higher parity births declined. To be clear, union stability is not currently a common explanation for lower-second and third-birth progressions in the literature.

3. Data and Methods

The data used for this study is based on the Harmonized Histories dataset (Perelli-Harris et al., 2010) in which

the partnership histories, as well as other information, were harmonized across generations and gender surveys for over 20 countries. Generations and gender surveys rely on a nationally representative sampling strategy documenting all partnerships and their timing along with other life course events based on retrospective respondents' reports. Participants were asked about when they entered and ended their first co-residential union (marital or non-marital), if ever, and the sex of their partner. Subsequent unions were documented as well. While recall errors may occur, the country data for the participating countries have been carefully assessed and deemed of high quality (see, e.g., Festy & Prioux, 2002; Vergauwen et al., 2015). The sample that was created covers enough birth cohorts to track changes from before the end of state socialism to as recent years as possible. Table 1 lists the years in which each country was surveyed as well as the latest cohort to reach age 30 by the time of the survey. We limit the oldest cohorts to those born in 1945.

The main comparison is of the birth cohorts who came of age before the transition from socialism began (1945–1969) and those born later (1970s). For a few countries, we are also able to assess trends for the cohorts born in the 1980s. Because we focus only on cohorts that reached age 30 by the time of the interview, the differences in survey years have no impact on the results. However, this difference does mean that in some countries we can follow more recently born cohorts but not in others. The recent cohorts in these few countries can only be compared among themselves. The 11 countries are separated into two groups in the presentation of results based on whether they were once part of the Soviet Union or not. Not only did the collapse of state socialism occur a little later for the Soviet Union, but, as mentioned, distinct paths in fertility development, as well as structural differences, make this division sensible (e.g., Aliyev, 2015; Billingsley & Duntava, 2017).

As the purpose of this study is to explore and describe trends, the methods used are relatively straightforward.

Table 1. Descriptive information related to the Harmonized Histories.

| | Survey years | Oldest cohort | Latest birth cohort reaching age 30 | Number of women in sample | Number of women reaching age 30 |
|------------|--------------|---------------|-------------------------------------|---------------------------|---------------------------------|
| Belarus | 2017 | 1945 | 1987 | 5059 | 4079 |
| Bulgaria | 2004 | 1945 | 1977 | 5475 | 4093 |
| Czech R. | 2005 | 1945 | 1978 | 3933 | 2843 |
| Estonia | 2004–2005 | 1945 | 1974 | 3460 | 2709 |
| Georgia | 2006 | 1945 | 1979 | 4162 | 3331 |
| Hungary | 2004 | 1945 | 1978 | 5285 | 4443 |
| Kazakhstan | 2018 | 1945 | 1988 | 8538 | 6868 |
| Lithuania | 2006 | 1945 | 1979 | 3642 | 2674 |
| Poland | 2010–2011 | 1945 | 1984 | 9172 | 7661 |
| Romania | 2005 | 1945 | 1975 | 4071 | 3344 |
| Russia | 2004 | 1945 | 1977 | 4973 | 3961 |

Using the data on union histories, we calculate (a) the share of all women in a given birth cohort that had not entered at least one co-residential union by their 30th birthday and (b) the share of all women in a given birth cohort that are still in their first union at the age of 30. All women in our samples who reached the age of 30 by the time of the interview were included for the first calculation on ever entering a union, whereas we select only women who entered a union and reached the age of 30 in the second calculation related to union stability.

For the analysis of delayed union formation, we extract the median age at entering the first co-residential union from Kaplan Meier failure estimates in which the process time is age: Women enter the risk set at age 16 and exit at first union or the month of the interview. The Kaplan Meier estimate is the best way to establish statistics such as the median age at an event because it allows all people in the data to contribute to the estimate, even if some individuals under observation have not yet completed the event under study, meaning they are censored before the event occurs. All women in our samples were included for the analysis of union formation timing, up to the cohort for which we were able to derive an estimate for median age. The specific cohorts are detailed in Figures 1 through 4.

For the analysis of total time spent in a union, we sum the months in which women stated they were in a union including all union spells that occur before the age of 30. All women who reach the age of 30 were included in the analysis of total time spent in unions by that same age.

4. Results

The first question we address is whether the timing of entering a first co-residential partnership has been delayed over cohorts. We show the timing of the delay onset and the extent of the delay using the same procedure and cohorts across all 11 countries. We estimate as many of the years in the most recent cohort bunch as possible to derive a median estimate. For example, in Belarus we can use the 1990 to 1995 birth cohorts because at least 50% of these women entered a union by the time they were surveyed in 2017. In contrast, Bulgarian women were surveyed most recently in 2004 and we can estimate a median age only for the 1980–1981 cohorts. Which birth cohorts can be included is a function of both when the survey was administered and how much union formation has been postponed. We cannot derive a median estimate for Hungary at all for the 1980s cohorts due to the greater extent of postponement there than in other countries that were surveyed in similar years.

Although the trend is toward a delay in entering co-residential unions, the increase in age was not universal. For the 1960s cohorts, who came of age before the transition from socialism commenced, the median age at first union was between 21 and 23 for all countries (Russia had the youngest age at 20.9 and Kazakhstan the oldest at 23.1). By the time the 1970s cohorts came of

age, this age range had spread from 20 to 24 (Figure 1).

In general, the age at first union formation has been more homogenous outside the Soviet Union than within it. But whereas Bulgaria and Romania saw little change for the cohorts of the 1970s vis-à-vis the 1960s cohorts, the Czech Republic, Hungary, and Poland showed a rapid increase in age at first union: almost a year in the Czech Republic and Poland, and over two years in Hungary. Bulgaria and Romania experienced the onset of union postponement first for the 1980s cohorts that came of age in the 2000s, with increases of over a year and a half in Bulgaria and almost two and a half in Romania. Strong union postponement continued in the other three Central and South-Eastern European (CSEE) countries as well, even though the median age at union formation in Hungary could not be estimated for the 1980s cohort, as mentioned above. For the cohorts and countries for which the median age could be estimated, we see a two-year delay between the 1960s and 1980s cohorts, most of which occurred after the transition from state socialism.

In the post-Soviet group, Kazakhstan stands out with having the latest age at union formation of all countries for nearly all cohorts. Worth noting is the different pattern in this group compared to CSEE countries with a slight decline in the age at entering a first union until cohorts born in the 1980s. This mirrors what we know about the timing of first birth trends in Russia (see, e.g., Billingsley & Duntava, 2017). The transition from socialism, therefore, did not seem to have the same impact on this group. The pattern of a later union postponement, similar to Bulgaria and Romania, appeared in all countries, except Kazakhstan, where postponement of union formation occurred only in the 1990s cohorts. Georgia and Russia experienced the most pronounced postponement of union formation from the 1970s to 1980s cohorts, with a delay of 2.5 and 2.1 years, respectively. In the cohorts considered, Estonia shows the least postponement (only 0.6 years).

The second question we set out to answer involved whether the share of people never entering a co-residential union by age 30 has increased. An increase in the median age at entering a union (see Figure 1) could be driven by either more people not finding partners or choosing not to move in together with their partner or both. Only women who reached age 30 by the time of the interview are analyzed here. For each country, we calculate the share in each birth cohort group that had not entered at least one co-residential union by their 30th birthday.

As shown in Figure 1, post-Soviet states were more heterogeneous in their union behavior than those in our sample from CSEE countries. In our earliest cohorts (1945–1959), between seven and 17% of women had not entered a co-residential union in CSEE countries, whereas it ranged from eight to 30% in the former Soviet countries—and again, an increasing trend appears for CSEE countries but not for post-Soviet.

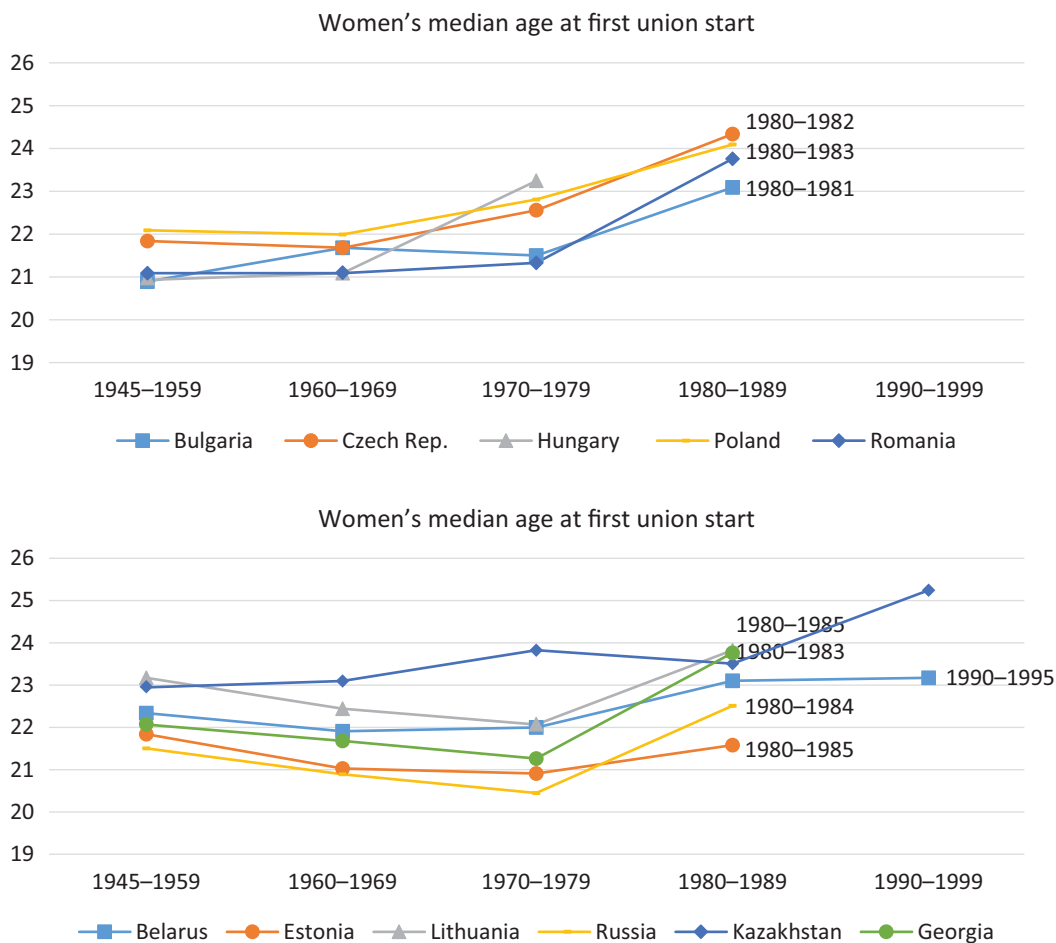


Figure 1. Women's median age at the start of a first co-residential union, by country and birth cohort. Notes: Given the survey year and the degree of partnership postponement, not all birth cohorts could be included in the analysis; no final cohorts are specifically indicated for Hungary and Poland in the top panel and Kazakhstan in the lower panel because the cohorts follow the legend.

Figure 2 reveals three different trends. First, there was a slight increase across birth cohorts before the transition from state socialism in Hungary, Poland, Georgia, and Estonia, and a more pronounced increase thereafter in these countries except for Poland. Second, in Bulgaria, the Czech Republic, and Romania we see an increase in the share not entering a union only after the transition for the 1970s cohorts. The third trend, with no consistent change across cohorts, or even a decrease for the youngest cohorts characterizes Belarus, Kazakhstan, Lithuania, and Russia. Putting the two pieces of information depicted in Figures 1 and 2 together, it would seem that only in Hungary might it be the case that some of the postponement of union formation may actually be driven by an increase in those who do not form a union at all by age 30. This conclusion is based on the fact that only in Hungary is there a relatively pronounced increase in both the age at forming a union and the share of women who did not enter a co-residential union by the age of 30.

In the third analysis, we focus on whether the share of women still in their first union at age 30 has declined.

We would expect such a decline over time if there is an increase in partnership instability when women are in their twenties. For this analysis, we again only selected women who had both reached their 30th birthday by the interview and entered a co-residential by age 30. In CSEE countries (Figure 3), we see striking similarities between the Czech Republic and Hungary on the one hand, in which a lower share of women (just under 90% for the earliest cohorts) was still in their first union by the age of 30, and between Bulgaria, Poland, and Romania, in which the share was higher (around 95% for the earliest cohorts). Most post-Soviet countries cluster at the upper side of this range when we look at the earliest cohorts, but Estonia and Russia settle below the others at around 80% of women maintaining their first union until age 30.

A decline in the share of these unions lasting is notable across both groups of countries. Kazakhstan is the only country where there was no marked decline, hence we can conclude that partnership instability was not affecting the amount of time women spent in co-residential unions there. The pace of decline was similar across the rest of the countries, even with

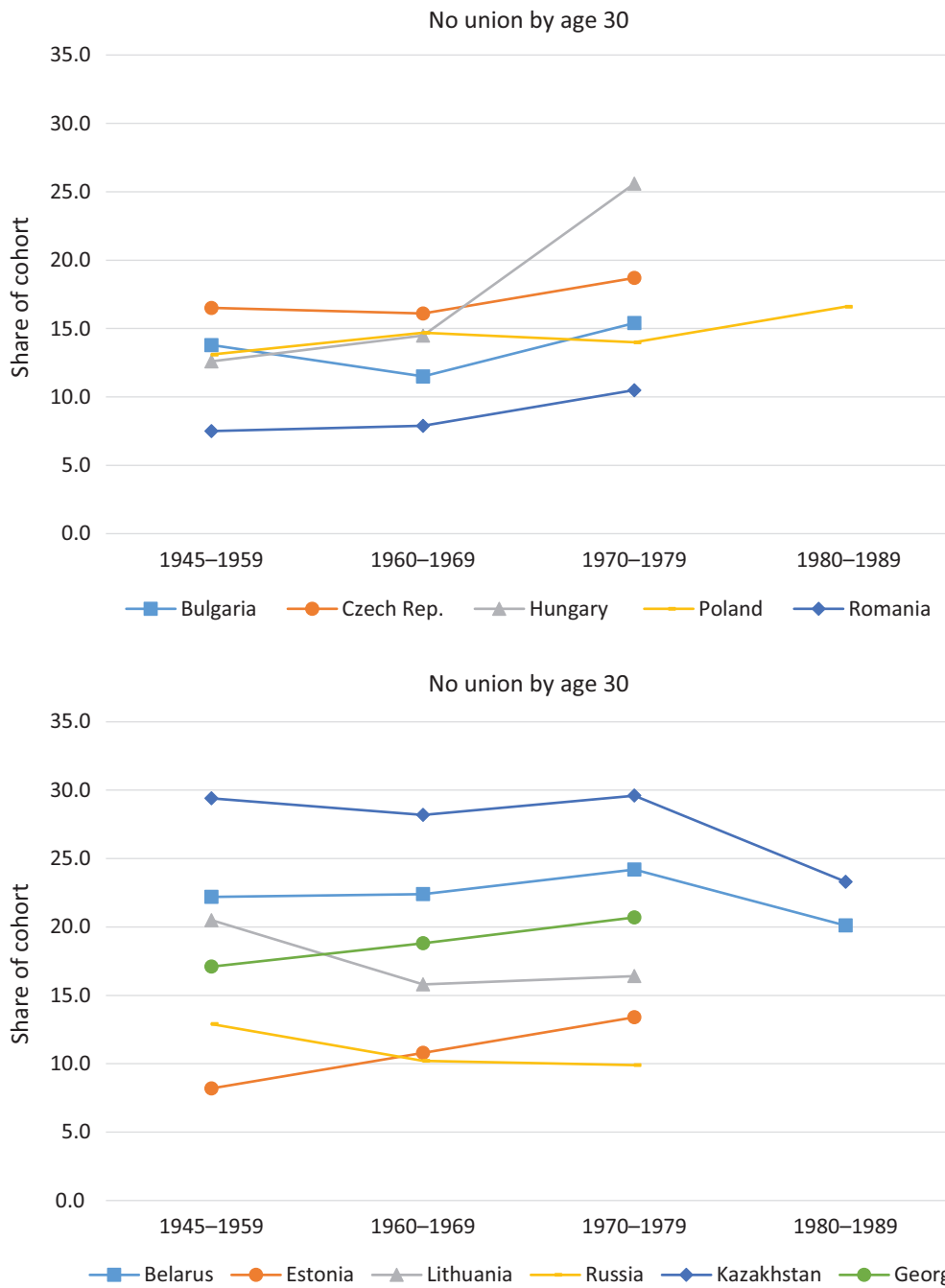


Figure 2. Share of women that did not enter a co-residential union by the age of 30 by country and birth cohorts.

their different starting levels. The trends appear to be long-term and not related to the transition, which is what comparative research specifically on divorce has shown (Härkönen et al., 2020). The only exception is Russia, where a substantial decline in first union stability appeared for the transition cohort (1970s). These findings point to partnership instability particularly contributing to fewer years spent in a union during women’s twenties in the Czech Republic, Estonia, Hungary, Poland, and Russia, and increasingly in all countries except Bulgaria and Kazakhstan.

Finally, we calculate the total number of years spent in a co-residential union before age 30 and observe

whether it has declined over cohorts. Note that we also include here women who were never in a union. This means that we pick up the contribution of changes in the share of women never entering a union before age 30, a delay in union formation, and union instability before age 30. The trends for only those women who were ever in a union before age 30 are displayed in the Supplementary File (Figure A).

In our earliest cohorts, women in CSEE countries spent more years in co-residential unions in general (between 6.1 and 7.4) than women in the Soviet republics (between 5.2 and 6.4). But this lower range of time spent in unions in the latter group held relatively

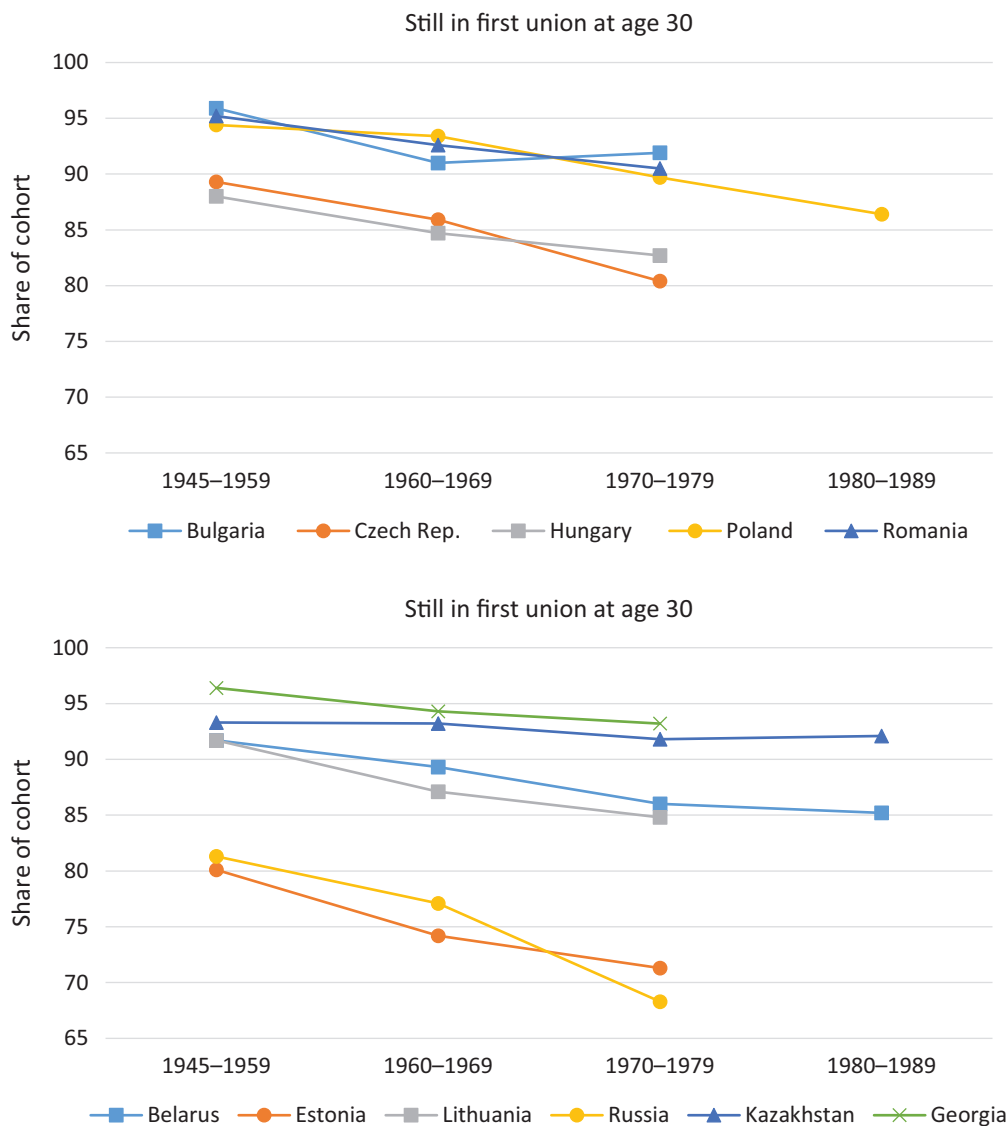


Figure 3. Share of women that are still in their first co-residential union at the age of 30 by country and birth cohorts.

stable across the cohorts even during the transition from state socialism. In contrast, CSEE countries saw a universal decline in the number of years with a partner (Figure 4). Hungary showed a strong decline (a loss of 2.1 years) in time spent in union(s) for the transition cohort. In a rare estimate for the 1980s cohorts, Poland showed a loss of one and a half years. The remaining CSEE countries lost between half a year and a year. This more moderate decline appears to be part of a longer trend in Bulgaria and Romania.

The post-Soviet countries mainly show a slight decline for the transition cohort, except for Georgia, and with recovery in Kazakhstan for the most recent cohort. The change for the post-Soviet countries amounted to less than half a year. Interestingly, very little change appeared for Russian women; the strong increase in union instability there seems to be counter-balanced by the younger age at entering a union until the very last cohort.

The same procedure is followed to estimate the number of years spent in unions up to age 35 (see Supplementary File, Figure B). While this is arguably a better measure (than observing only up to age 30) of understanding how this precondition for childbearing has changed over time, it includes a substantially reduced number of women in the latest cohorts as those who did not reach age 35 by the time of the interview were excluded. The same general trends appear, nevertheless.

5. Discussion

Despite much focus in the literature on changes in childbearing behavior, little attention has been given to whether there were changes in a basic pre-condition for childbearing, particularly co-residential unions. This study was primarily concerned with the coexistence of partnership changes in recent decades and how they together shape the possibilities women have for

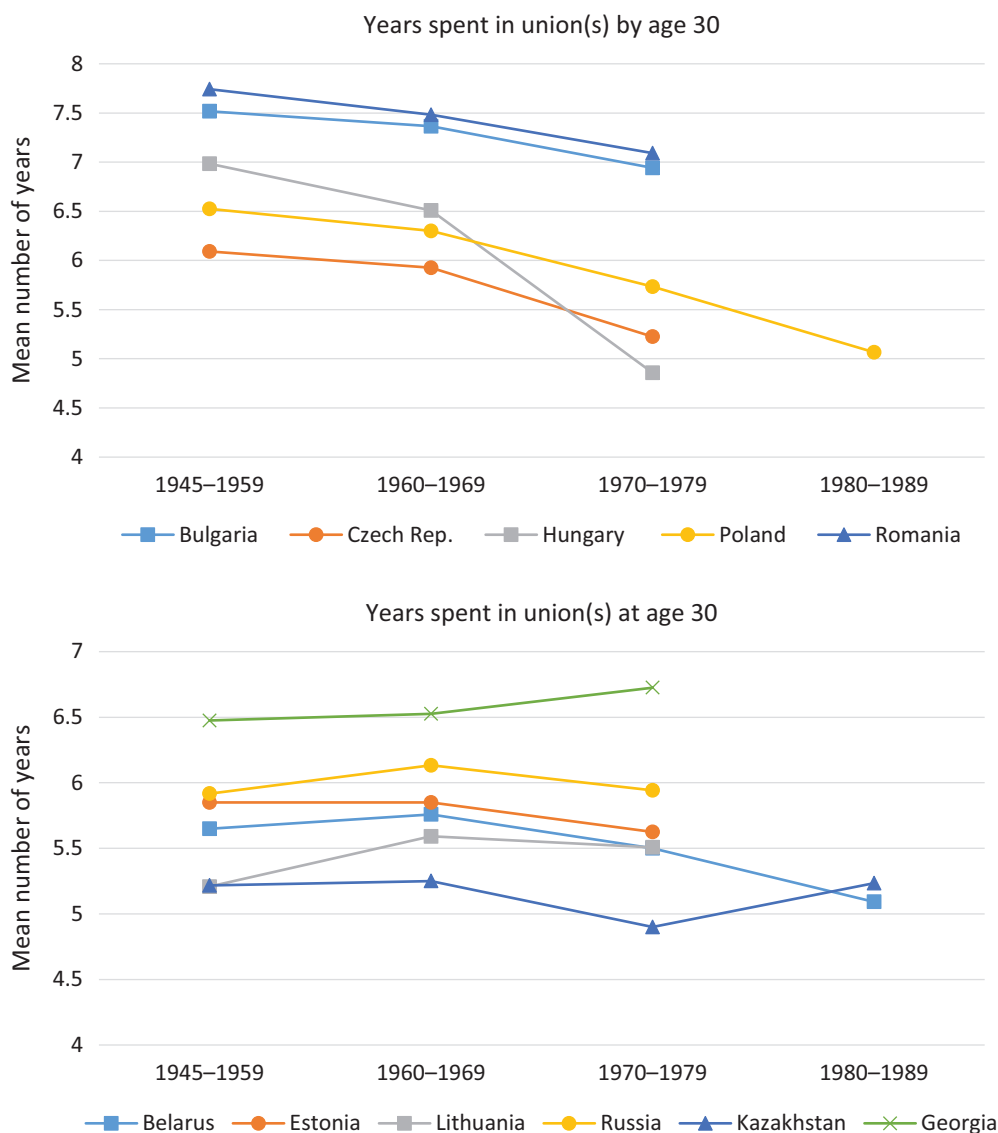


Figure 4. Average number of years women spent in co-residential unions by country and birth cohorts.

childbearing. We focused on the former socialist countries in which fertility rates declined dramatically, particularly following the transition from state socialism. This group of countries is far from homogenous, given variations in the success of market reforms (Bohle & Greskovits, 2007) as well as changes in norms and values (Sobotka, 2011).

Before considering our findings, a few limitations should be highlighted. First, our data relies on respondents remembering when their unions began and ended, and there may be some margin of error due to difficulties recalling the exact dates. Whereas the oldest cohorts could have a more difficult time recalling dates than younger cohorts, the pattern of nearly universal marriage entered at young ages that dominated partnership dynamics in the region at the time they were young and formed a family mitigates such concerns, as well as the start of all unions beginning with moving in together. As mentioned earlier, we did not distinguish between marital and non-marital co-residential unions,

even though the extent of non-marital unions as well as whether such union is considered suitable for childbearing are likely to vary across countries. Finally, we do not account for other potential contributors to low fertility rates, including substantial unregistered emigration of young people.

Overall, our results show that partnership dynamics have changed to a degree that they may be a potential contributor to declining fertility rates in CSEE countries, and in Hungary in particular. We observed a striking decline (2.1 years) after the transition began in the time women spent in co-residential unions over the cohorts in this country. By the 1980s cohorts, women in Poland had lost a year and a half, and this continued decline likely applies to countries with similar trends for which we cannot estimate the development for younger cohorts (the Czech Republic in particular). In Poland, this decline seemed to be driven by both a later age at entering a union and less stability of co-residential unions. In Hungary, all three processes (delay, abstaining

from a union, and instability) contributed to fewer years that women spent in unions, but only union instability appears to have been a long-term trend and not a feature of the post-transition cohorts.

Partnership dynamics have changed enough in other CSEE countries to have potentially contributed to fertility decline as well, albeit of less importance than in Hungary (until more recently in Poland and potentially the Czech Republic). Except in Hungary, this appears to have little to do with women not entering a union at all, but rather by a new trend of postponed co-residential unions and a continued, but modest, increase in partnership instability. The delayed formation of a union mirrors the more pronounced postponement of parenthood visible in this group of countries (Billingsley & Duntava, 2017).

We considered countries with a shared history of being part of the Soviet Union separately. There is more diversity within this group than between the two groups of countries in terms of first co-residential union timing, never in a union by the age of 30, and partnership instability. This is in keeping with expectations based on varied institutional developments and how these shape life course developments (Mayer, 2001). Nevertheless, we see a very different scenario than in CSEE countries.

Most importantly, we do not see a trend toward fewer years spent in union across cohorts in the post-Soviet countries. In overall years lost in co-residential unions, Kazakhstan looks the most similar to the CSEE countries discussed. Women in the post-transition cohort lost a little over half a year in their twenties; but unlike in Poland, the trend reversed instead of deepening with the 1980s cohorts. Interestingly, this recovery in time spent in unions occurred at the same time that postponement of first union began. The factor that may explain the recovery and offset the impact of postponement was a notable decline in the share of women who do not partner by age 30, similarly to Belarus. Pointing toward a strong link between partnership and fertility dynamics, the reversal of this union trend mirrors a reversal in the declining fertility trend observed in more recent years in Kazakhstan (Spoorenberg, 2015).

Belarus and Estonia saw a very minor decline—about two or three months—in time spent in co-residential unions for the 1970s cohorts compared to older cohorts. The contribution of union dynamics along the lines studied here to childbearing in these two contexts could therefore be only very minor, if at all. However, looking at the 1980s cohorts in Belarus, a more substantial decline in years spent in a co-residential unions appears. This is mostly driven by postponement of the first union, as the median age for this cohort increased by over a year. Union instability appears to have contributed slightly as well. The small decline observed in Estonia cannot likely be explained by postponement of first co-residential union (at least not in the 1970s cohorts, the most recent we can observe there). Rather it appears due to both partnership instability and an increase in the share of women who do not partner by the age of 30.

The final three countries—Georgia, Lithuania, and Russia—experienced very little change in the time women spent in a co-residential union during their twenties. These three countries saw a fall in the age at first co-residential union instead of postponement for the pre-transition cohort. This was not unusual for the post-Soviet countries, as the median age either held constant or was dipping for these women; it was not until the 1980s cohorts that we saw an increase in the median age (except for Kazakhstan). This increasingly early entrance into co-residential unions was strong enough to offset the sharp increase in union instability (Lithuania experienced only a modest increase, whereas Georgia saw barely any change at all). Plus, a steady but small increase in the share of women who never entered a union during their twenties in Georgia (with only negligible change in Lithuania and Russia) mattered little for total years in a union. By the time women are in their early 30s, however, these other union dynamics (instability and never entering a union) appear to become more dominant, as we can see more signs of a decline in total years spent in a union when considering trends up to age 35 (see Supplementary File, Figure B). Whether union stability has the potential, as a single contributor, to provoke the decline in higher parity births in Russia, for example, is something that may be worth further exploring.

Taken together we can say that the changes in early co-residential union dynamics may have contributed to the fertility decline in CSEE countries, but probably played a limited role in the post-Soviet states. Just as we found various patterns of changing union dynamics in these 11 countries, the early stages of family building are less static also elsewhere in the world. Marriages are increasingly postponed in advanced societies elsewhere in Europe, North America (for an overview see Oláh et al., 2021), and Asia, but this trend is accompanied by rising singlehood only in certain contexts displaying long-term extremely low fertility, in particular, Southeast and East Asia (Raymo et al., 2015; Yeung et al., 2018). All in all, a better understanding of the relationship between partnerships and childbearing is necessary if partnership dynamics are to be considered as new avenues for policy-making aimed at sustainable societal development.

Acknowledgments

We thank Brienna Perelli-Harris for her previous work on the Harmonized Histories (www.nonmarital.org). In addition, we thank UNECE for the generations and gender surveys: These data were obtained from the GGP data archive and created by the organizations and individuals listed on <http://www.unece.org/pau/ggp/acknowledge.htm>.

Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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