

ÖAW

AUSTRIAN
ACADEMY OF
SCIENCES

VIENNA INSTITUTE OF DEMOGRAPHY

WORKING PAPERS

05/2018

**DIDN'T PLAN ONE BUT GOT ONE: UNINTENDED
AND SOONER-THAN-INTENDED BIRTHS AMONG
MEN AND WOMEN IN SIX EUROPEAN COUNTRIES**

**ZUZANNA BRZOWSKA, ISABELLA BUBER-ENNSER, BERNHARD
RIEDERER AND MICHAELA POTANČOKOVÁ**

Vienna Institute of Demography
Austrian Academy of Sciences
Welthandelsplatz 2, Level 2 | 1020 Wien, Österreich
vid@oeaw.ac.at | www.oeaw.ac.at/vid



Abstract

This article examines the characteristics of women and men who got a child despite declaring no such wish up to three years before the pregnancy. We compare these unintended or sooner-than-intended parents with those who got a child as intended and those who, in line with their intentions, did not increase their family size. Using the first and second wave of the Generations and Gender Survey for six low-fertility countries (Austria, Bulgaria, France, Hungary, Italy and Poland) we conduct bivariate analysis and (multinomial) logit models. Our results show that not realising negative fertility intentions is linked more to a particular stage in one's life course and finding a new partner than to a disadvantaged socio-economic status. Thus, most of the *unintended* or *sooner-than-intended* births are probably neither unintended nor sooner-than-intended, but are a result of change in one's life circumstances between the time of measuring the fertility intentions and their realisation.

Keywords

Fertility intentions, realisation of fertility intentions, unintended births, sooner-than-intended births

Authors

Zuzanna Brzozowska (corresponding author), Wittgenstein Centre for Demography and Global Human Capital (IIASA, VID/OEAW, WU), Vienna Institute of Demography, Austrian Academy of Sciences. Email: zuzanna.brzozowska@oeaw.ac.at

Isabella Buber-Ennsner, Wittgenstein Centre for Demography and Global Human Capital (IIASA, VID/OEAW, WU), Vienna Institute of Demography, Austrian Academy of Sciences. Email: isabella.buber-ennser@oeaw.ac.at

Bernhard Riederer, Wittgenstein Centre for Demography and Global Human Capital (IIASA, VID/OEAW, WU), Vienna Institute of Demography, Austrian Academy of Sciences. Email: bernhard.riederer@oeaw.ac.at

Michaela Potančoková, Vienna Institute of Demography, currently at Joint Research Centre, European Commission, Ispra, Italy. Email: michaela.potancokova@oeaw.ac.at

Acknowledgments

This research was conducted within the project *Running Against the Clock* (RAC, PI: Isabella Buber-Ennsner) funded by the Austrian Research Foundation (FWF28071).

Didn't Plan One But Got One: Unintended and Sooner-Than-Intended Births among Men and Women in Six European Countries

Zuzanna Brzozowska, Isabella Buber-Ennsner, Bernhard Riederer, Michaela Potančoková

1 Introduction

The theory of planned behaviour (Ajzen 1991; Ajzen and Fishbein 2005), which sees intentions as a motivation to act, has sparked a widespread interest in studying the link between short-term fertility intentions and their realisation. Evidence on factors affecting the realisation of the intention to have a child in the near future is rich and includes the individual-level characteristics like sex, race, age, education, employment, parity, partnership, marital status or ideals (e.g. Morgan and Rackin 2010; Philipov 2009a; Schoen et al. 1999), the couple-level variables like (dis)agreement between partners on having (more) children (e.g. Testa 2012; Thomson 1997) or partner's characteristics (e.g. Dommermuth et al. 2015; Kapitány and Spéder 2012), and the socio-institutional context (e.g. Spéder and Kapitány 2014; Vignoli and Régnier-Loilier 2011). In contrast, surprisingly little research has been conducted on factors influencing the realisation of the intention *not* to have a child in the near future. The scarce evidence available (i.e. a study conducted on US women in the 1990s) suggests that getting a child despite expressing no such intention some time before the pregnancy cannot be simply classified as an unwanted or mistimed birth (Williams et al. 1999). It does not, however, provide much information on how people who get such an 'unexpected' birth differ from those who successfully realise their fertility intentions, positive (the intention to have a child) or negative (the intention not to have a child).

This article examines the characteristics of women and men who got a child despite declaring no such wish up to three years before the pregnancy. We compare these *unexpected*¹ parents with two other groups: those who got a child as intended (hereafter called *intentional parents*) and those who, in line with their intentions, did not increase their family size. We use cross-national panel data for six low-fertility countries representing different social, cultural, economic and institutional settings: Austria, Bulgaria, France, Hungary, Italy and Poland. Three of them – Bulgaria, Hungary and Poland – are post-socialist countries, which have been shown to have lower realisation rates of positive

¹ We follow Williams et al. (1999) and Spéder and Kapitány (2009) who, within a context of panel surveys, used the adjectives *unexpected*, *unintended* and *sooner-than-intended* to describe births that had not been planned at the first survey wave. We are aware that the terms might be misleading as they suggest the births are unwanted or mistimed, which is not necessarily the case. More appropriate terms, however, seem not to exist.

fertility intentions (Brzozowska and Mynarska 2017; Buber-Ennsner 2014; Spéder and Kapitány 2014). Examining the childbearing behaviour of those not planning a child in the near future further enhances our understanding of the East-West differences in reproductive decision-making.

In the next part we review the empirical evidence on the characteristics of women and men who intend to have a (further) child within the next three years and who do not. In case of the latter ones, we distinguish between those who do wish for a/ another child but later than within the three-year horizon and those who do not want to have any (more) children at all. In the following section we summarise the previous findings on factors facilitating and hindering the realisation of short-term fertility intentions. Then, we hypothesise how unexpected parents might differ from *intentional parents* and from those who succeed in realising their intention not to have children within the next three years. Next, we describe the data and method used, and present our results. We conclude with a summary and a discussion of our findings.

2 Who Intends To Have a (Further) Child within a Three-Year Horizon and Who Does Not: Overview of Empirical Findings

When asked whether they intend to have a (further) child in the near future (i.e. within the next two or three years), most respondents at reproductive age declare no such intention. Their share is surprisingly stable across the European countries, varying between 67% in Hungary and 73% in Austria and Poland (Brzozowska and Mynarska 2017 for Poland; Dommermuth et al. 2015 for Norway; Kapitány and Spéder 2012 for Bulgaria; Kuhnt and Trappe 2016 for Germany; Spéder and Kapitány 2009 for Hungary; Testa 2014 for Austria)². In other words, only a minority (between 27 and 33%) wishes for a child in the near future. However, these figures are substantially higher among childless respondents and parents of one child (Billingsley and Ferrarini 2014; Brzozowska and Mynarska 2017; Vignoli and Régnier-Loilier 2011).

The association between age and short-term fertility intentions largely reflects the effect of parity. Women and men at advanced reproductive age tend to have reached their desired family size and do not wish for further children. However, the relationship is not linear. Teenagers and, increasingly more often in low-fertility countries, people in their early 20s usually intend to have their first child not within the next three years but later in time (Riederer and Buber-Ennsner 2016). This results mostly from the social norm of sequencing life course events, which in times of prolonged education and labour market uncertainty translates into later family formation (Balbo et al. 2013; Ní Bhrolcháin and Beaujouan 2012).

² Respondents answering questions on their fertility intentions are usually between 18 and 50 years old; in some surveys the age range is narrower, from 21 (e.g. Hungary, Estonia and the Netherlands) up to 45 (e.g. Austria, Hungary, Estonia and the Netherlands) (Beaujouan 2014). The cross-country variation thus would probably weaken if adjusted for the differences in the age range.

On the other hand, people in their late 30s and in their 40s might be discouraged from intending (more) offspring also by social and/or biological age limits for having children (Billari et al. 2010; Liefbroer et al. 2015; Mynarska 2009). Exactly for this reason, however, those who would still like to extend their family, will be more inclined to wish to do so sooner rather than later (Beaujouan and Sobotka 2014).

Another demographic factor crucial for short-time childbearing intentions is partnership status. The two-parent family is widely considered as far the best environment for having children, so people with a co-residing partner are much more likely to wish for a (further) child in the near future than those without a partner in the household (Billingsley and Ferrarini 2014; Philipov et al. 2006). Interestingly, not having a partner seems much more inhibiting for women's short-time fertility intentions than for men's, especially when it comes to wish for a second or third child (Billingsley and Ferrarini 2014).

Education and employment status are frequently listed as key socio-economic factors affecting short-term fertility intentions. It has been found that university graduates tend to wish for a child in the near future more often than their less educated peers (Billingsley and Ferrarini 2014; Mills et al. 2008), though it is not clear how the effect of education varies by the institutional and cultural context. The impact of employment is far more equivocal and depends heavily on country and parity. For instance, in France, being unemployed has been found to suppress the desire for a first child, but not for further children (Pailhé and Régnier-Loilier 2017), whereas in Austria, it seems not to play any role (Hanappi and Buber-Ennsner 2017). Studies analysing different aspects of employment (e.g. its security and protection) report similarly ambiguous results (Begall and Mills 2011; Fahlén and Oláh 2015; Pailhé 2009).

Whereas individual characteristics are crucial for short-term fertility intentions, the institutional context, i.e. the type of family policy a country pursues, might also play a role. Billingsley and Ferrarini (2014) show that active policy, supporting either traditional or earner-carer families, seems to be conducive to intending a first child in the near future, both for women and men. Furthermore, women living in countries favouring gender-equal family model are more likely to wish for a second child.

3 Realisation of Short-Term Fertility Intentions

An overwhelming majority of the scholarship on the realisation of fertility intentions focuses on fulfilling the intention to have a (further) child in the near future. Typically, *intentional parents* are compared to those who declared short-term fertility plans but failed to carry them out and, when re-interviewed three to four years later, either still wished for a child in a short-term perspective (postponers) or abandoned their initial plan (abandoners) (Spéder and Kapitány 2009).

In such a study set-up, age and partnership status are the only factors whose effects have been found unequivocal: partnered people and those in their 20s and early 30s repeatedly turn out to have higher realisation rates than singles and the late 30- and 40-year-olds, respectively (Dommermuth et al. 2015; Kapitány and Spéder 2012; Riederer and Buber-Ennsner 2016; Spéder and Kapitány 2009, 2014; Vignoli and Régnier-Loilier 2011). In contrast, the role of parity seems to be more ambiguous. In some countries childless people are more successful in realising their intention to have a child than one-child parents (e.g. Bulgaria and Hungary), whereas in other countries it is the other way round (e.g. Italy, Austria and Switzerland) or there are no differences between childless respondents and one-child parents (e.g. France); parents of two and more children have usually the lowest realisation rates (Kapitány and Spéder 2012; Spéder and Kapitány 2014; Vignoli and Régnier-Loilier 2011; Riederer and Buber-Ennsner 2016).

The effects of education and employment depend heavily on the institutional and cultural context and so the evidence is mixed. Education seems to be positively correlated with the likelihood of realising the intention to have a child in the near future (Spéder and Kapitány 2009; Testa and Toulemon 2006; Vignoli and Régnier-Loilier 2010), but some studies do not find any significant relationship (Kuhnt and Trappe 2016; Spéder and Kapitány 2014), and others suggest the strength of the relationship varies by parity (Dommermuth et al. 2015). Being employed has been found to increase the chances of fulfilling the intention to have a child among men, but among women it either exerts an opposite effect or none (Kapitány and Spéder 2012; Kuhnt and Trappe 2016).

The institutional context itself can facilitate or hinder the realisation of positive short-term fertility intentions. The realisation rates tend to be higher in countries that make it easier for women and men to combine family and professional career (Dommermuth et al. 2015; Kapitány and Spéder 2012; Spéder and Kapitány 2014; Vignoli and Régnier-Loilier 2011). Furthermore, the stability of the institutional context has been also found to matter: in post-socialist countries, characterised by constant institutional changes during the transition to market economy, the link between the positive reproductive intentions and behaviour is weaker (Spéder and Kapitány 2014). The authors posited that it reflects “the differential pace of social changes” (p. 414) with structural conditions changing much faster than values and attitudes.

The evidence on factors affecting the realisation of negative fertility intentions is much scarcer. Overall, those who do not wish for a (further) child have been found far more successful in carrying out their plans than those who intend a(nother) child (Hanappi et al. 2017; Kuhnt and Trappe 2016; Spéder and Kapitány 2009; L. Williams et al. 1999). Consequently, the group of respondents failing to fulfil their negative reproductive intentions is consistently reported as the smallest one.

We are aware of three European studies that include analyses of the realisation of negative short-term fertility intentions: Spéder and Kapitány (2009) for Hungary, Kuhnt and Trappe (2013) for Germany and Hanappi et al. (2017) for Switzerland. They have found

that the likelihood of carrying out the plan not to have any (more) children in the near future increases with one's age and the number of children one already has, with the main difference being between those with at most one child and those with at least two children. Further, not having a partner facilitates the realisation of the plan. The effect of education and employment on the probability of fulfilling the intentions not to have a (further) child was evaluated only for Germany: education turned out not significant, whereas being unemployed or employed only part-time had a positive effect, but only for men; for women, employment did not play a role. The division into former West and East Germany did not affect the chances of realising the negative fertility intentions but people who did succeed in realising their plan not to have (further) children lived more often in former West Germany (Kuhnt and Trappe 2016).

In the US context, Williams et al. (1999) examined directly how women who fail to realise their short-term intention not to have a (further) child compare to those who declare their pregnancy as unwanted or mistimed. The picture they got was mixed. On the one hand, the sooner-than-intended mothers shared some characteristics typical of women who experience a mistimed pregnancy: they tended to be in their late teens or early twenties with at most high school education, have already children and live in households with income below the poverty level. In other words, they showed some signs of a negative selection known for unplanned pregnancies. On the other hand, the results were not fully consistent with previous and later literature on unwanted and mistimed pregnancies. For instance, women aged 35 and older were found less likely to experience an unintended birth than women in their 20s, whereas other studies show that the risk of unwanted pregnancy rises at advanced reproductive age (Finer and Henshaw 2006; Henshaw 1998). Further, race, one of the strongest determinants of unwanted childbearing in the United States (D'Angelo et al. 2004; Finer and Zolna 2016; Kost and Forrest 1995; Williams 1991), turned out not significant, and never-married women were less likely to get a sooner-than-intended birth than married ones which contradicted the repeatedly proved positive link between mistimed pregnancy and the fact of being unmarried in the American context (Finer and Henshaw 2006; Finer and Zolna 2016; Henshaw 1998).

Williams et al. (1999) concluded that the discrepancies between their and others' findings most probably resulted from differences in the study design. Typically, analyses of pregnancy intendedness are based on retrospective studies which suffer from "underreporting of unintended pregnancies or the over-reporting of intended ones" (p. 220). Williams et al. (1999) applied a prospective approach which does not create the misreporting problem, but which is sensitive to changes in life circumstances possibly leading to modification of fertility intentions: the sooner-than-intended or unintended births do not necessarily result from an unwanted or mistimed pregnancy, but they might simply be a respond to new living conditions like having a new partner.

Regarding country differences, it has been found that in Eastern and Southern Europe the share of women using effective contraception is lower than in Western Europe (Dereuddre et al. 2016; Dereuddre et al. 2016; United Nations 2015). This does not

necessarily indicate that Eastern and Southern Europeans are less able to plan their reproductive behaviour and, consequently, experience unwanted or mistimed pregnancies more often. On the contrary, life-course planning has been found more deliberate in countries with higher institutional instability and in worse economic condition (Hellevik and Settersten 2013). In fact, in adverse circumstances, in a context in which “it is never a good time to have a child” (Gribaldo et al. 2009, p. 578), relying on traditional instead of modern contraceptive methods can be a way of ‘planning’ births “in a setting where planning ‘too much’ is unacceptable, and the optimal conditions for childbearing (education, stable employment, couple stability, home-owner) are impossibly hard to obtain within the desired timeframe” (Gribaldo et al. 2009, p. 578).

4 Anticipated Differences between Unexpected Parents and Those Who Successfully Realise Their Fertility Intentions

Based on the existing evidence on short-term fertility intentions and their realisation we have the following expectations towards the characteristics of unexpected parents.

We hypothesise that sooner-than-intended parents, i.e. those who got a (further) child sooner than planned at the first survey wave, are younger and have fewer children than both *unintended parents* (i.e. those who got a child despite expressing no such intention at wave 1) and *intentional parents*. However, when it comes to *unintended parents*, we expect them to be older and to have more children than the *intentional* ones. Compared to those who succeeded in not having a child just as planned, *unexpected parents*, both *sooner-than-intended* and *unintended*, should be on average younger, if not for any other then for biological reasons: it is usually easier to get pregnant in one’s 20s than in one’s 40s and late 30s. Also for biological reasons all the above mentioned age effects might be weaker for men than for women which would be in line with Spéder and Kapitány’s (2009) findings.

A positive link between a situational change, like entering a new union, and the likelihood of an unexpected birth would support Williams et al.’s (1999) hypothesis of alteration of fertility intentions. If, however, unexpected births were indeed unwanted or mistimed, they would happen more often to less educated people than to better educated ones and, as education and employment positively correlate with each other, more often to unemployed than to employed.

Finally, based on previous findings on contraceptive use and the effect of the economic-institutional context, we assume unexpected births to take place more frequently in Eastern and Southern than in Western Europe.

5 Method

5.1 Data

We use the first and second wave of the Generations and Gender Survey (GGS) (Vikat et al. 2007) for Austria, Bulgaria, France, Hungary, Italy and Poland³. The GGS was carried out in the 2000s and 2010s, with a three-year (Bulgaria⁴, France and Italy) or four-year (Austria, Hungary and Poland) span between the waves. In Austria and France, data were collected through face-to-face computer-assisted interviews; in Bulgaria, Hungary and Poland, paper-and-pencil personal interviewing was performed; this method was also applied for the first wave in Italy, whereas for the second wave computer-assisted phone interviews were conducted (technical information on the survey is available at www.ggp-i.org/data/methodology/). In the majority of countries in our study, the questions about fertility intentions were asked to women and men aged between 18 and 50 years old. However, in Austria and Hungary the age range of respondents was narrowed to 18-45 and 21-45, respectively. We therefore restrict our analysis to women and men aged 21 to 45 at wave 1 with valid information on childbearing intentions. Further, we exclude respondents who were infecund or had an infecund partner⁵. Our analytical sample comprises 14,337 female and 10,893 male panel respondents.

Panel attrition rates among respondents fulfilling these criteria range from 22% in Austria and Hungary to 43% in Poland and are slightly higher than for the unrestricted samples (between 21% and 38% in Hungary and Poland, respectively); in Italy, only one-fifth of the sample was intended to be re-interviewed and so it is not possible to compute the attrition rates (for details, see the documentation for Italy at <http://www.ggp-i.org>). Although quite high in some countries, the attrition did not produce any substantial bias in the distribution of short- and long-term fertility intentions: the deviations are usually lower than one percentage point (see Table A1 in Appendix).

³ We restrict our analysis to these six countries because they applied comparable filters to questions about fertility intentions and used similar question framing. Other countries with GSS data available for two waves used different filters and/ or non-comparable questions; see Beaujouan (2014) for details.

⁴ In Bulgaria, the data collection within the second wave started two and a half years after the first one.

⁵ In France, they have been filtered out automatically as they were not asked about their fertility intentions. In Italy, questions about fecundity were not included in the questionnaire.

5.2 Measures

5.2.1 Fertility Intentions

We use two questions on fertility intentions implemented in wave 1⁶. Respondents were first asked about their short-term fertility intentions: *Do you intend to have a/another child during the next three years?* Possible answers were: *probably yes, definitely yes, probably not, definitely not*; in France a fifth option was given (*don't know*), whereas in Hungary only three answers were suggested (*yes, no and don't know*). Women and men intending no child in the near future (i.e. answering *probably not, no or definitely not*) were further asked about their long-term fertility intentions: *Supposing you do not have a/another child during the next three years, do you intend to have any (more) children at all?* Possible answers were specified in the same way as for short-term fertility intentions. For our analysis, we dichotomise the answers so that childbearing intentions are either positive or negative.⁷ (See Table A2 in Appendix for the unweighted distribution of short- and long-term fertility intentions).

5.2.2 Classification of Respondents According To Fertility Intentions and Their Realisation

Partly following the terminology used by Spéder and Kapitány (2009), we group respondents according to their fertility intentions expressed at wave 1 and their fertility outcomes between wave 1 and 2 (see Figure 1).

The group we focus on are respondents who intended no child within the following three years at wave 1 but got one by the second wave. It includes *unintended parents* (UPs) and *sooner-than-intended parents* (STIPs). The former consists of respondents who did not want any (further) children at all whereas the latter comprises those who did not want a child within the following three years but later. Throughout the paper, we alternatively use the terms *unintended/ sooner-than-intended parents* (USTIPs) as well as unexpected births to describe this group.

Respondents who wanted to have a child within the following three years at wave 1 and realised this intention by wave 2, are denoted *intentional parents* (IPs). *Postponers and abandoners* (PAs) are defined as those who by wave 2 did not realise their intention to have a child within the following three years and at wave 2 either kept their childbearing plans

⁶They were not asked to respondents expecting a child at wave 1. In Italy, however, respondents were not asked about their/their partners' current pregnancy. Therefore we excluded from the analysis those who must have known about their/their partner's pregnancy at the time of the interview, i.e. those who got a child within 26 weeks after the interview.

⁷ For a small number of respondents (around 1%), short-term fertility intentions were missing, but long-term fertility intentions were given. In such cases we recode the short-term fertility intentions as negative and classify the respondents according to their long-term fertility intentions.

(postponers) or gave them up (abandoners); we do not further investigate this group in our analyses, but kept it for the overall classification. Men and women who at wave 1 wanted a child later than within the following three years and who did not get one by the second wave, are named *later intention, no kids* (LINKs). The fourth group, labelled *no intention, no kids* (NINKs), consists of respondents who did not wish for children within any time horizon and did not get any by wave 2. The distribution of women and men in each group is shown in the upper panel (*Realisation of fertility intentions*) of Table 1.

When analysing whether a baby was born between wave 1 and 2, we adopt two different approaches depending on the time span between the waves. In countries where it was three years (Bulgaria, France and Italy), we include all births taking place between the two survey waves and all pregnancies reported at wave 2. Where the second wave was conducted four years after the first one (Austria, Hungary and Poland), we count only those births that occurred up to 3.5 years after wave 1, and we exclude pregnancies reported at wave 2. Throughout the study, we analyse whether any children were born between wave 1 and 2, without counting the number of babies born.

Figure 1

Classification of respondents according to their realisation of fertility intentions

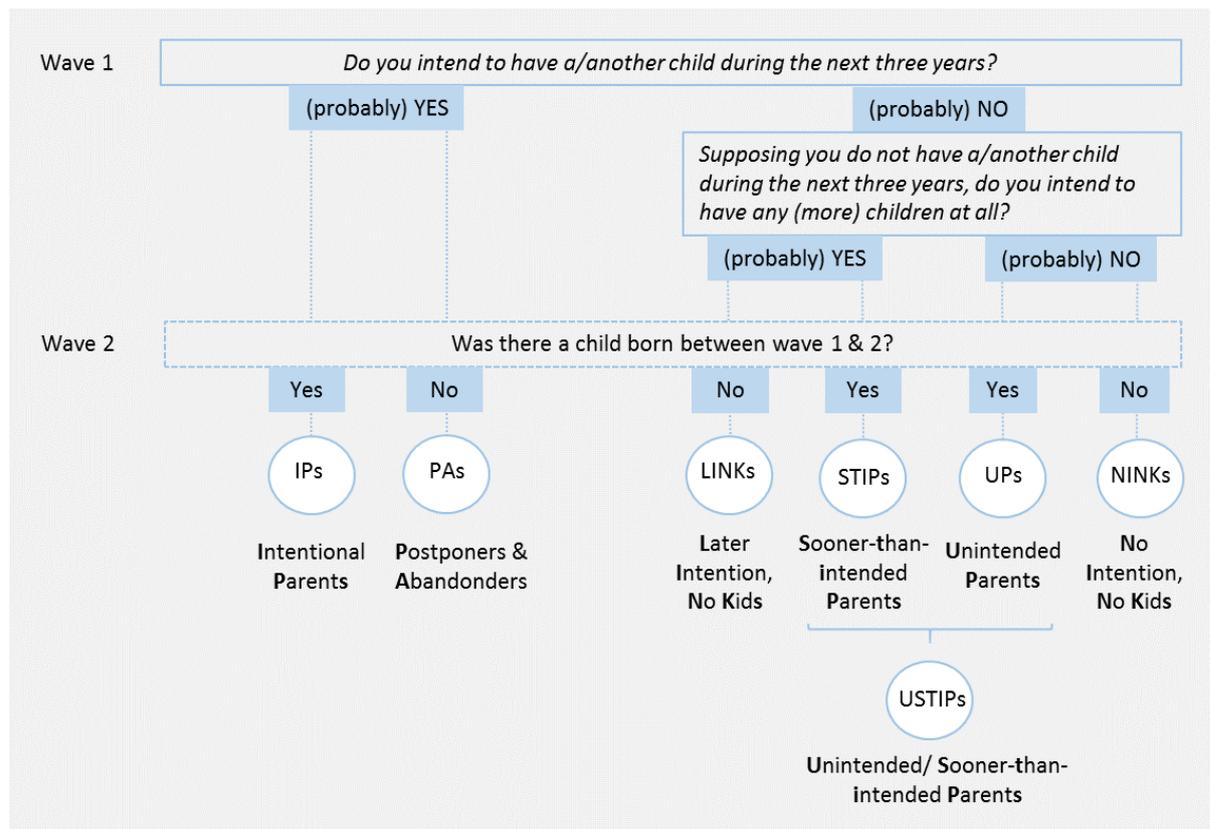


Table 1 Panel sample characteristics, unweighted data

	Austria		France		Italy		Bulgaria		Hungary		Poland	
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
Realisation of fertility intentions (%)												
Unintended parents (UPs)	1	1	2	2	1	1	1	1	2	2	3	3
Sooner-than-intended parents (STIPs)	2	2	1	1	1	1	1	1	3	4	2	2
Intentional parents (IPs)	12	10	13	11	8	8	4	5	7	8	7	10
Later intention, no kids (LINKs)	15	21	9	10	15	25	10	18	16	27	8	15
No intention, no kids (NINKs)	50	37	51	47	55	43	64	47	48	34	57	46
Postponers and abandoners (PAs)	15	22	17	18	18	19	16	23	16	18	17	18
<i>Unknown</i>	6	6	7	10	3	4	4	4	8	7	6	6
N (total)	1,931	1,364	1,619	1,211	2,716	2,099	2,849	2,159	2,723	2,265	2,499	1,795
Excluding <i>Unknown</i> and <i>Postponers and abandoners</i> from the sample												
Explanatory variables (%)												
Age at w1												
20-29	29	33	27	25	19	25	25	31	36	43	24	28
30-35	24	22	25	22	21	19	29	23	22	23	26	23
36-45	48	46	47	53	60	55	47	46	42	34	50	49
University education at w1												
<i>Unknown</i>	-	-	-	-	-	-	0	0	-	-	1	1
Employed at w1												
Parent at w1	68	85	71	85	59	84	65	67	61	79	53	75
<i>Unknown</i>	-	-	-	-	9	13	-	-	-	-	-	-
Partnership status at w1 and w2												
Partnered at w1, same partner at w2	63	57	61	62	71	58	66	52	57	46	68	61
Partnered at w1, single at w2	5	4	4	2	0	0	3	3	6	4	2	2
Partnered at w1, new partner at w2	2	3	3	5	1	0	10	12	8	9	4	4
Single at w1, partnered at w2	14	16	11	11	4	6	5	11	10	14	7	8
Single at w1 and w2	16	19	20	20	24	36	15	23	19	27	19	25
N (total)	1,541	983	1,228	863	2,147	1,626	2,283	1,575	2,063	1,702	1,937	1,362

Note: The '-' sign denotes no missings, whereas '0' stands for values below 0.5%.

5.2.3 Socio-Demographic Characteristics of Respondents

We use the following respondents' characteristics measured at wave 1 as explanatory variables in our bivariate and multivariate analyses: age (21-29, 30-35 and 36-45), education (university vs. non-university), employment (employed vs. not employed), number of children (0, 1 and 2+). We also include information on partnership status and its change between the waves and differentiate whether the respondent (1) had the same partner at both waves (*partnered at w1, same partner at w2*), (2) had a partner at wave 1 but not at wave 2 (*partnered at w1, single at w2*), (3) had different partners at wave 1 and 2 (*partnered at w1, new partner at w1*), (4) was single at wave 1 and partnered at wave 2 (*single at w1, partnered at w2*) or (5) was single at both waves (*single at w1 and w2*). We classify a respondent as partnered if living with a partner, irrespective of being married or not. (See Table 3 for the unweighted distribution of all variables by country and gender.)

5.2.4 Analytic Approach

We conduct our analyses separately for women and men. First, we examine the socio-demographic characteristics of *unexpected parents* and compare them to *intentional parents*, LINKs and NINKs. For these descriptive analyses, we apply post-stratification weights. Second, we evaluate the differences between *unintended* and *sooner-than-intended parents* and test our hypotheses as formulated earlier in this article. To this end, we apply logistic regression models on the pooled data comprising all countries, using a dummy variable to differentiate between Eastern (Bulgaria, Hungary and Poland) and Western European countries (Austria, France and Italy).

Then, in order to examine to what extent a) *unintended parents* (UPs) differ from *intentional* ones (IPs) on the one hand and from the NINKs on the other hand and b) *sooner-than-intended parents* (STIPs) differ from *intentional* ones (PIs) as well as from the LINKs, we apply multinomial logit models.

6 Results

6.1 Descriptive Analysis

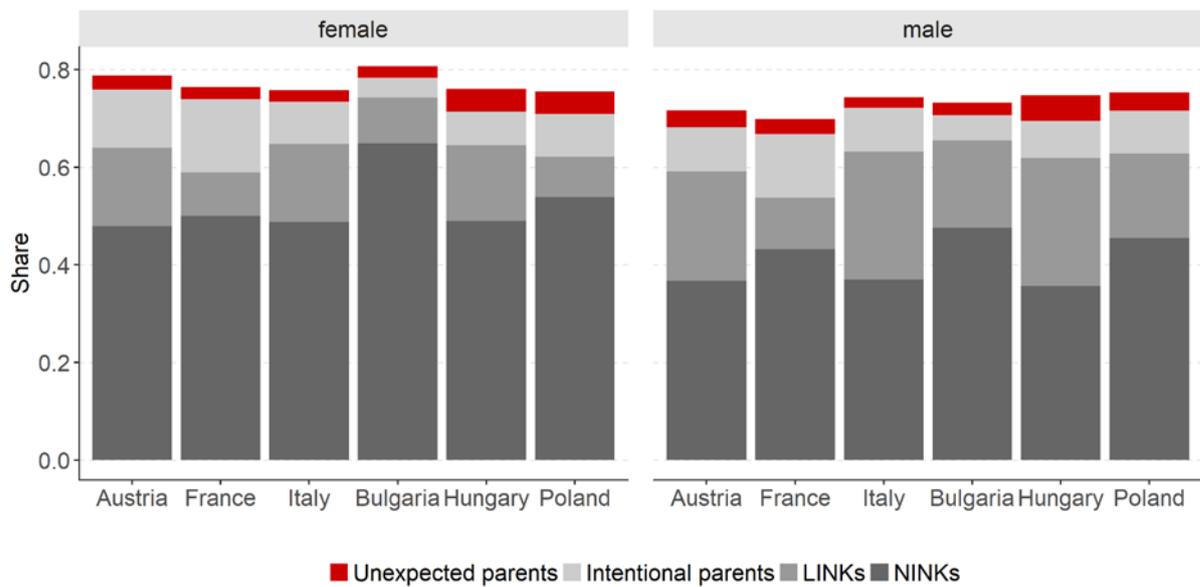
6.1.1 Frequency of Unexpected Births

The distribution of respondents with respect to the realisation of their short-term fertility intentions confirms previous findings (Figure 2): in all countries, becoming an *unintended* or a *sooner-than-intended parent* is a rare event. Its frequency ranges from 2% among women and men in Italy to 6% among Hungarian men. However, when focusing only on those respondents with new-borns between wave 1 and 2, the share of *unexpected parents* turns out much more substantial, varying between 16% among French women to 39% among

Hungarian women (Figure 3). Figures are higher in the post-socialist countries than in the Western countries (on average 37 and 21%, respectively). This East-West division is visible among both sexes, but is particularly clear-cut for women. Furthermore, in Austria, France and Italy women become *unintended* or *sooner-than-intended parents* usually less often than men, whereas in Bulgaria, Hungary and Poland the shares of unexpected births are higher among women than men.

Figure 2

Realisation of fertility intentions between wave 1 and 2, weighted data

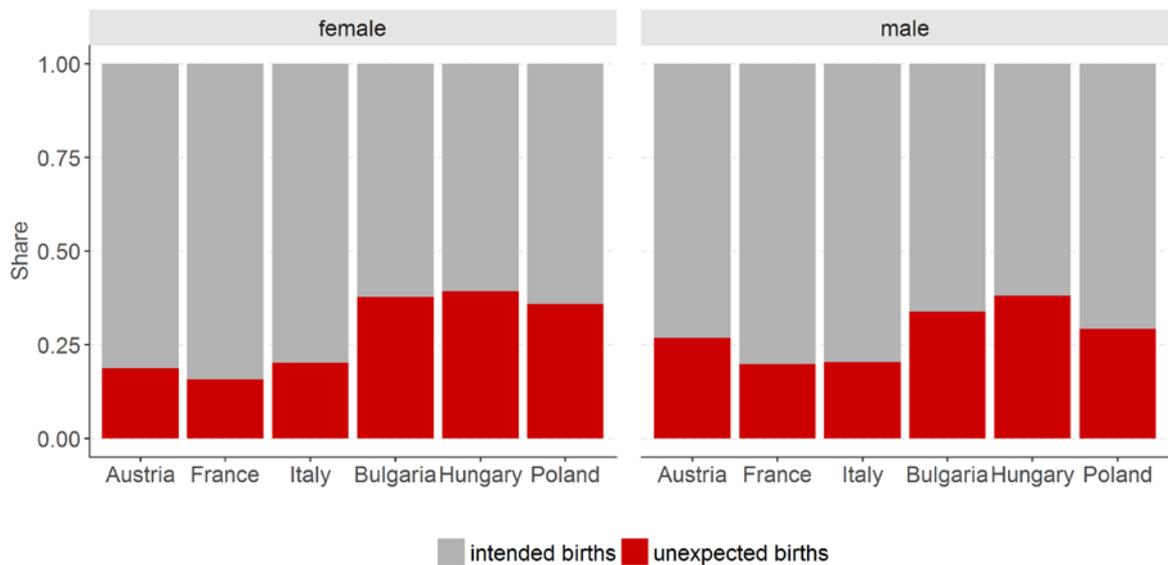


Source: GGS, authors' computations. N = 25,230.

Note: The numbers do not sum up to 1 because the categories *Postponers and abandoners* and *Unknown* are included in the denominator albeit not shown in the figure.

Figure 3

Share of unexpected births among all births between wave 1 and 2, weighted data



Source: GGS, authors' computations. N=2,933.

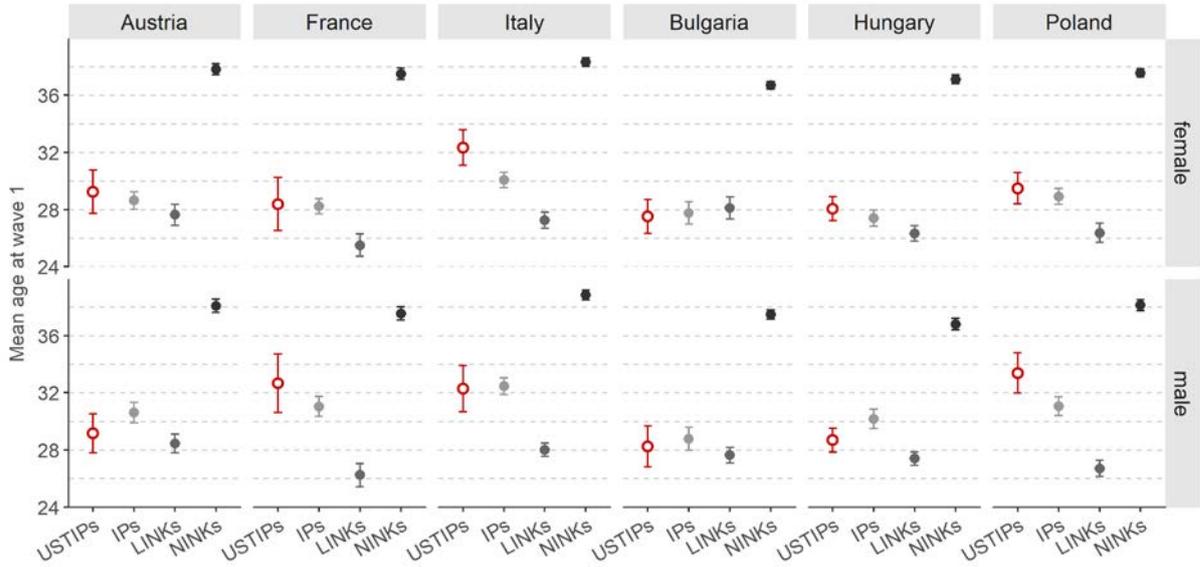
Note: All multiple births are counted as one. If more than one pregnancy/birth had been declared, we count only the first one.

6.1.2 Socio-Demographic Characteristics of *Unintended/ Sooner-Than-Intended Parents*

The *unintended/ sooner-than-intended parents* do not differ from the *intentional parents* in terms of age except in Italy where *intentional* mothers are on average two years younger than mothers with unexpected births (Figure 4). As expected, however, *unintended/ sooner-than-intended parents* are typically younger than the NINKs, i.e. those who declared no intention to have (further) children at wave 1 and correspondingly did not get any by wave 2, but older than the LINKs, i.e. those who wanted children later than within three years and who were successful in realising this intention. Further, those who have experienced an unexpected birth are almost universally less often childless than the NINKs, but more often than the LINKs (Figure 5). Compared to *intentional parents*, the *unexpected* ones do not stand out with respect to childlessness except in Poland, Hungary and, among women only, Italy where *unexpected parents* have children more often. However, when it comes to the average family size among parents, it is larger among *unintended/ sooner-than-intended parents* than among *intentional parents* in all analysed countries (Figure 6). Differences are particularly strong in Eastern countries, where *unexpected parents* have, on average, markedly more children compared not only to *intentional parents*, but also to the LINKs.

Figure 4

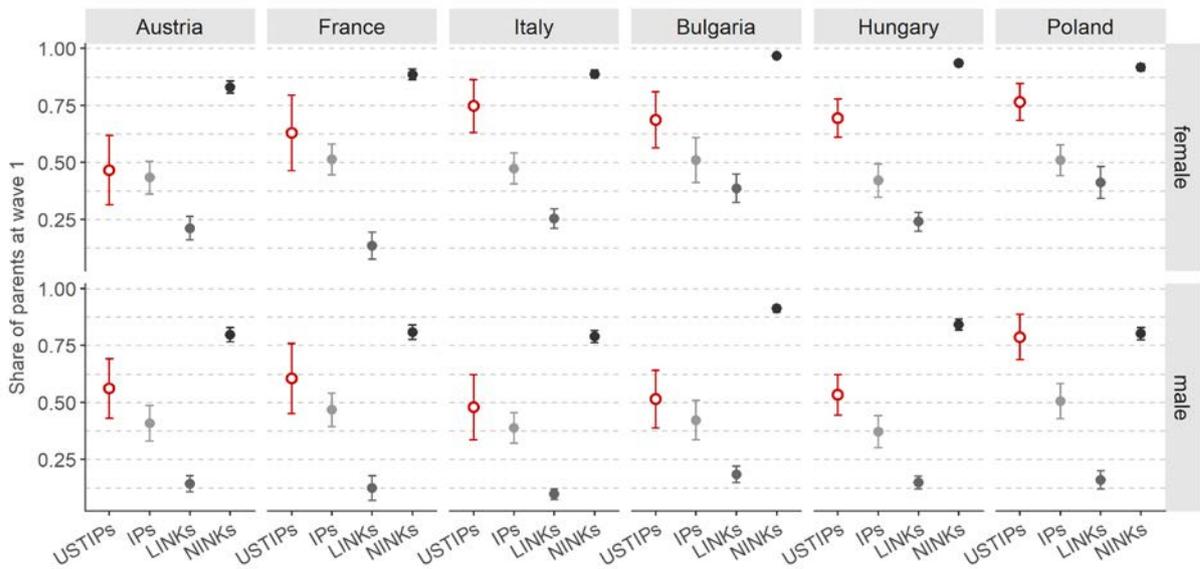
Mean age of different respondent groups at wave 1 together with 95% confidence interval (whiskers), by country and sex, weighted data



Source: GGS, authors' computations.

Figure 5

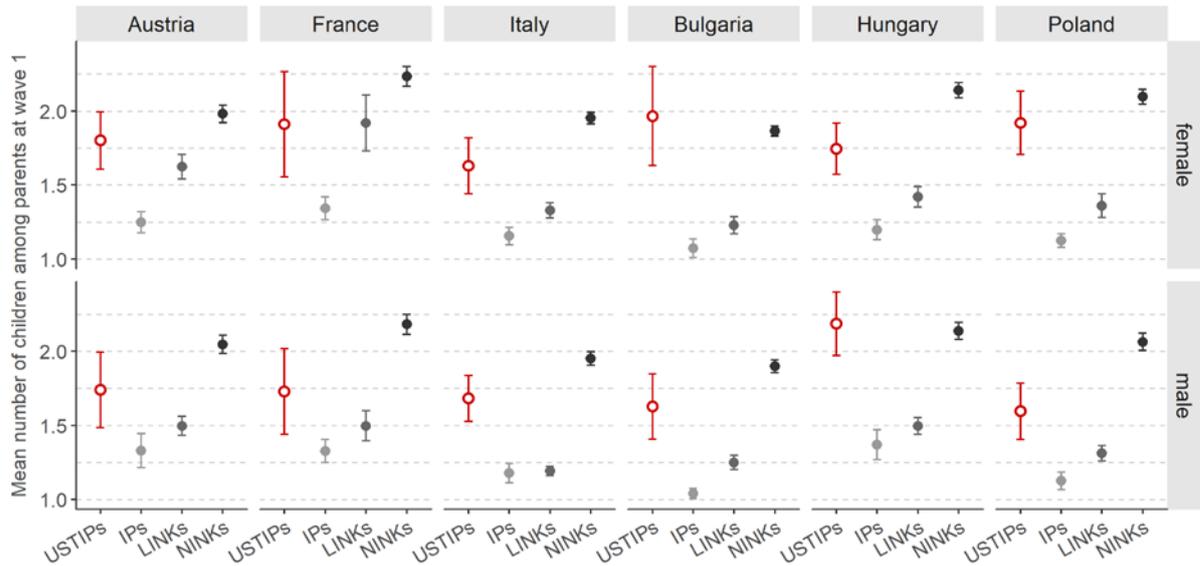
Share of parents at wave 1 together with 95% confidence interval (whiskers), by respondent group, country and sex, weighted data



Source: GGS, authors' computations.

Figure 6

Mean number of children among parents at wave 1 together with 95% confidence interval (whiskers), by respondent group, country and sex, weighted data



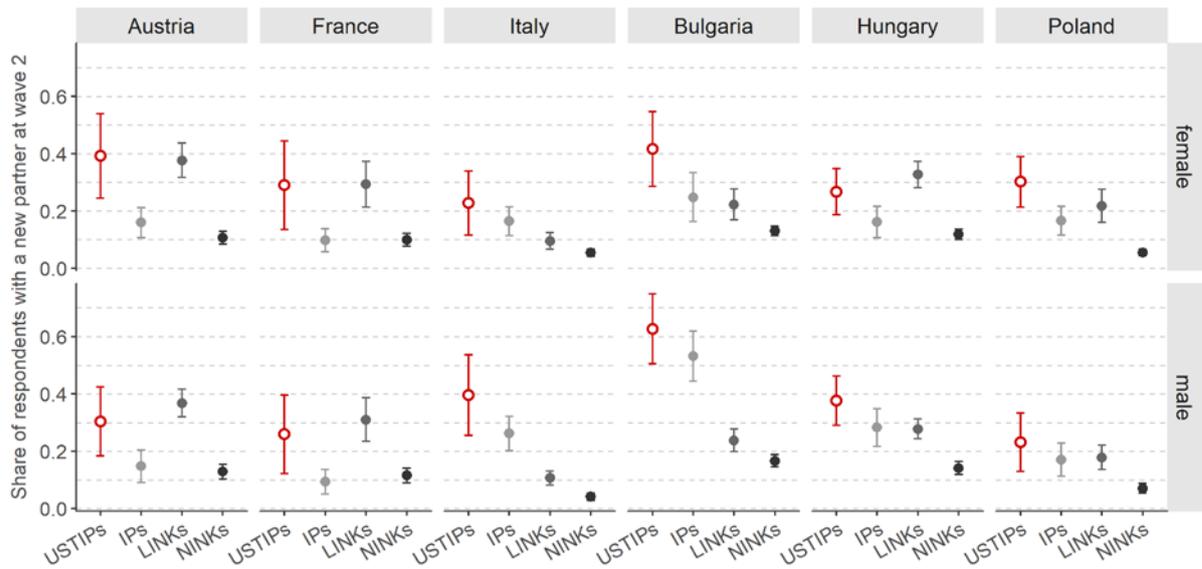
Source: GGS, authors' computations.

Surprisingly, there are not many systematic differences between *unexpected parents* and the other respondent groups regarding partnership status and its change. Those who between wave 1 and 2 experienced an unintended or sooner-than intended birth were, at wave 1, more often partnered than the LINKs, but usually differed neither from the NINKs nor from the *intentional parents* (Figure 9 in Appendix). Moreover, *unexpected parents* tended to have had a new partner by wave 2 roughly as often as *intentional parents* and the LINKs; only in comparison to the NINKs were they more inclined to find a new partner (Figure 7).

Of the two socio-economic characteristics included in the analysis – education and employment – only education acts as a discriminating factor (results for employment not shown). *Unintended/ sooner-than-intended* mothers in post-socialist countries and Italy have a university degree substantially less often than *intentional* ones (Figure 8). There are no differences between the *unexpected parents* and the other two groups.

Figure 7

Share of respondents with a new partner at wave 2 as compared to wave 1 together with 95% confidence interval (whiskers), by respondent group, country and sex, weighted data

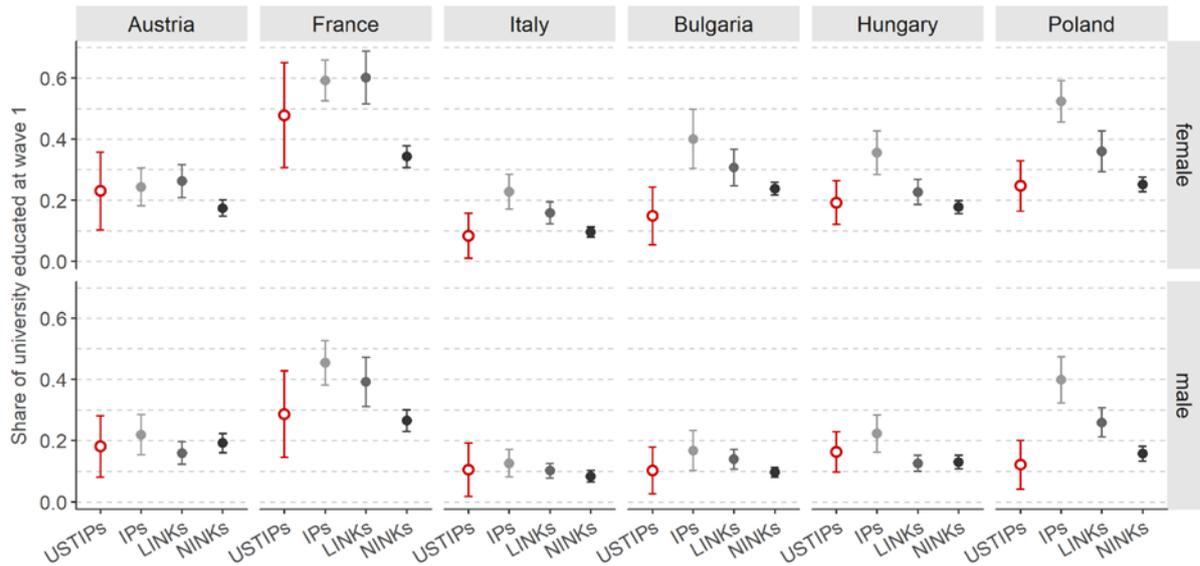


Source: GGS, authors' computations.

Note: The graph shows the share of respondents who either were partnered at wave 1 and changed their partner by wave 2 or were single at wave 1 but partnered at wave 2.

Figure 8

Share of university educated at wave 1 together with 95% confidence interval (whiskers), by respondent group, country and sex, weighted data



Source: GGS, authors' computations.

In view of the observed differences between post-socialist and Western countries with respect to education and parity, we include interactions between these variables and the variable *East* in the multivariate analysis (section 6.2).

6.2 Multivariate Analysis

6.2.1 Differences between *Unintended* and *Sooner-Than-Intended* Parents

We first examine whether there are any differences between *unintended* and *sooner-than-intended* parents. To this end, we carry our logistic regressions for women and men who experienced an unexpected birth. The reference category is *sooner-than-intended* parenthood, so that the coefficients presented in Table 2 indicate the chances of becoming an *unintended* parent as opposed to a *sooner-than-intended* one. Positive and negative coefficients denote higher and lower, respectively, log odds of experiencing an unintended birth.

Our analysis shows that *unintended* and *sooner-than-intended* parents differ from each other mainly with respect to age and the number of children (Table 2): women and men who had not planned any (more) children in the near future but got one nevertheless are on average older and have more children. Compared to respondents aged 21-29 those in their late thirties and early forties have much higher chances to get an unintended rather than a sooner-than-intended child. The age effect is particularly strong for women, among

whom it is significant already for the 30-35 year-olds and much higher in the age group 36-45 than among their male peers. Further, the *unintended parents* (UPs) tend to have more children than the *sooner-than-intended* ones (STIPs). The chances of being an UP rather than a STIP increase markedly already when having only one child against having none, and with two or more children they are much higher. Among women, this effect seems stronger in the Eastern countries than in the Western ones.

Compared to women living together with the same partner at both waves, women who remained single are more likely to get an unintended baby than a sooner-than-intended one. For men, this effect is not possible to estimate due to lacking cases men remaining single among *unintended* fathers.

Table 2

Estimated β -coefficients for experiencing an unintended pregnancy among *unexpected parents* (ref.: *sooner-than-intended parents*)

	women	men
(Intercept)	-2.23***	-1.99***
Age (ref.: 21-29)		
30-35	0.95***	0.37
36-45	2.61***	1.49***
Parity (ref: parity 0)		
Parity 1	1.21*	1.91**
Parity2+	2.67***	2.28***
Partnership (ref.: partnered with the same partner at both waves)		
Partnered at w1, single at w2	0.36	/
Partnered at w1, new partner at w2	0.04	0.52
Single at w1, finding partner at w2	0.34	-0.71†
Single at w1, staying single at w2	1.02*	/
Education (ref.: non-tertiary)		
Uni edu	0.13	-0.16
Employment (ref.: not employed)		
Employed	0.04	0.28
East-West (ref.: West)		
East	-0.58	0.64
East x Uni edu	-0.74	-0.98
East x Parity1	1.04	-0.95
East x Parity2+	1.78*	-0.09
AIC	438	393
-2Log	408	367
N	471	385

Reference categories: age 21-29; childless; partnered at w1, same partner at w2; no university education; not in employment; West.

Note: † p<0.1, * p<0.05, ** p<0.01, *** p<0.001. The sign “/” denotes ‘no cases in this category’.

6.2.2 *Unintended and Sooner-Than-Intended Parents Compared To Intentional Parents*

Although the *unintended* (UPs) and *sooner-than-intended parents* (STIPs) do not seem to drastically differ from each other with respect to the characteristics included in the analysis, distinguishing between these two groups proves valuable for their comparison with *intentional parents* (IPs) (Models 1a and 2a in Table 3 and Models 3a and 4a in Table 4). In line with the results shown in Table 2, when compared to the *intentional* parents, the *unintended* ones are typically older and the *sooner-than-intended* ones, especially fathers seem to be younger.

Furthermore, an unintended birth happens far more often to people who are already parents. Having one child raises the chances of being an UP rather than an IP almost three-fold for women and nearly four-fold for men; having two or more children further amplifies the odds (Models 3a in Table 4). For women, the positive relationship between the number of children and the likelihood of becoming an *unintended* parent as opposed to an *intentional* one gets even stronger in the post-socialist countries (Model 3a in Table 4). In case of the *sooner-than-intended* mothers, the effect of children is also more marked in the East than in the West, but overall it is more moderate and significant only for those having at least two children (Table 3, Model 2a). Irrespective of the East-West division, fathers of at least two children are around four times more likely than childless men to be a *sooner-than-intended parent* rather than an *intentional* one (not significant for women); having one child only does not seem to play any different role than having no children (Table 3, Model 1a and 2a).

In line with our expectations, women and men single at wave 1 but with a partner at wave 2 experienced far more often an unintended or a sooner-than-intended birth rather than an *intentional* one as compared to those who had the same partner at both waves (Table 3, Models 1a and 2a and Table 4, Models 3a and 4a). For women, also changing the partner exerts a positive (though weaker) effect on the odds of becoming an UP or STIP rather than IP (not significant for men); in addition, women who at both waves declared not to live with a partner have markedly higher chances of an unexpected birth than for an intentional one (for men, this effect is not possible to estimate).

The effect of education seems stronger for the *unintended parents* than for the *sooner-than-intended* ones. A university degree decreases the chances of experiencing an unintended birth as opposed to an intentional one both among women and men. For women, it is further strengthened in the East (not significant for men). In case of the *sooner-than-intended parents*, they have tertiary education less often than the *intentional parents*, but this holds only for women; for men, there is no significant effect. The second socio-economic characteristic, employment, acts as a discriminating factor only for the odds of becoming an *unintended* mother: employed women have lower chances to get an unintended birth than an intentional one.

As hypothesised, the unintended and sooner-than-intended births tend to happen more often in the post-socialist countries. This East-West division seems stronger for women than for men.

Table 3

Estimated β -coefficients of becoming an *intentional parent* or a LINK (ref. category: *sooner-than-intended parent*), multinomial regression models

Ref.: Sooner-than-intended parents	Women				Men			
	Intentional parents		LINKs		Intentional parents		LINKs	
	M1a	M2a	M1b	M2b	M1a	M2a	M1b	M2b
(Intercept)	2.42***	2.3***	1.62***	1.65***	2.15***	2***	1.35***	1.3***
Age (ref.: 21-29)								
30-35	0.3	0.31†	-0.01	0.02	0.51*	0.52**	-0.24	-0.24
36-45	0.77	0.75	1.67***	1.69***	0.75*	0.73*	0.86**	0.87**
Parity (ref: parity 0)								
Parity 1	-0.2	0.02	-0.37†	-0.75*	-0.08	0.24	-0.09	-0.20
Parity2+	-0.51†	-0.07	0.45†	0.58	-1.37***	-0.93*	-0.11	0.06
Partnership (ref.: partnered with the same partner at both waves)								
Partnered at w1, single at w2	-0.85	-0.89	1.65**	1.64**	/	/	/	/
Partnered at w1, new partner at w2	-0.64*	-0.68*	0.03	0	-0.15	-0.19	0.11	0.10
Single at w1, finding partner at w2	-1.73***	-1.75***	0.23	0.24	-1.66***	-1.69***	0.49*	0.49*
Single at w1, staying single at w2	-1.05***	-1.08***	1.88***	1.88***	/	/	/	/
Education (ref.: non-tertiary)								
Uni edu	0.4*	0.35	0.15	0.14	0.28	0.34	0.22	0.33
Employment (ref.: not employed)								
Employed	0.19	0.17	-0.26†	-0.26	0.1	0.08	-0.11	-0.11
East-West (ref.: West)								
East	-0.89***	-0.6*	-0.26†	-0.34	-0.65***	-0.35	-0.19	-0.13
East x Uni edu		0.13		-0.01		-0.07		-0.17
East x Parity1		-0.5		0.57		-0.55		0.18
East x Parity2+		-1.06*		-0.24		-0.81		-0.27
AIC	4,331	4,314	4,331	4,314	3,046	3,049	3,046	3,049
-2Log	4,283	4,254	4,283	4,254	3,006	2,997	3,006	2,997
N			3,102				3,339	

Note: † p<0.1, * p<0.05, ** p<0.01, *** p<0.001. The sign “/” denotes ‘no cases in this category’.

Table 4

Estimated β -coefficients of becoming an intentional parent or a NINK (ref. category: *unintended parent*), multinomial regression models

Ref.: Unintended parents	Women				Men			
	Intentional parents		NINKs		Intentional parents		NINKs	
	M3a	M4a	M3b	M4b	M3a	M4a	M3b	M4b
(Intercept)	4.68***	4.21***	2.38***	2.4***	3.35***	3.51***	0.84*	1.28**
Age (ref.: 21-29)								
30-35	-0.5**	-0.53**	0.48**	0.46**	0.08	0.08	0.76***	0.73***
36-45	-1.83***	-1.84***	2.19***	2.17***	-0.54*	-0.55*	2.29***	2.28***
Parity (ref: parity 0)								
Parity 1	-1.76***	-1.03**	-0.52†	-0.42	-1.27***	-1.36**	0.06	-0.5
Parity2+	-3.98***	-3***	-0.15	0	-3.4***	-3.15***	0.77*	0.46
Partnership (ref.: partnered with the same partner at both waves)								
Partnered at w1, single at w2	-1.4*	-1.37*	1.09*	1.12*	/	/	/	/
Partnered at w1, new partner at w2	-0.65*	-0.6*	-0.3	-0.28	-0.25	-0.28	-0.12	-0.1
Single at w1, finding partner at w2	-2.02***	-2.06***	-1.09***	-1.09***	-1.06**	-1.08**	0.58	0.66†
Single at w1, staying single at w2	-2.01***	-2.12***	0.21	0.22	/	/	/	/
Education (ref.: non-tertiary)								
Uni edu	0.54**	0.08	-0.06	-0.6*	0.6*	0.15	0.06	-0.38
Employment (ref.: not employed)								
Employed	0.52**	0.51**	0.45**	0.44**	0.27	0.21	0.26	0.25
East-West (ref.: West)								
East	-1.01***	0.2	-0.01	0.07	-0.66***	-0.76†	-0.02	-0.87†
East x Uni edu		0.8*		0.88*		0.79		0.77†
East x Parity1		-1.65**		-0.26		0.04		1.06†
East x Parity2+		-2.39***		-0.31		-0.59		0.69
AIC	5,457	5,386	5,457	5,386	3,744	3,730	3,744	3,730
-2Log	5,409	5,326	5,409	5,326	3,704	3,678	3,704	3,678
N			9,620				5,686	

Note: † p<0.1, * p<0.05, ** p<0.01, *** p<0.001. The sign “/” denotes ‘no cases in this category’.

6.2.3 *Unintended and Sooner-Than-Intended Parents Compared To Links and Ninks*

In line with our hypotheses, *unexpected parents* tend to be younger than those who fulfilled their plan of not having (further) children, at least within the next three years. The effect of age is weaker and present only later in life when comparing the *sooner-than-intended parents* (STIPs) with the LINKs: compared to the 21-29 year-olds, the chances for STIPs diminish substantially for the 36-45 year-olds, but not change for the 30-35 year-olds. The odds of getting an unintended baby as opposed to not having children correspondingly to one’s plans (i.e. being a NINK) decrease with age much more quickly, starting already in the early 30s. Against our expectations, age affects women more strongly than men only in case of the STIPs; in case of the UPs it does not differ between the women and men.

Mothers of one child are more likely than childless women to get a sooner-than-intended baby (Models 1b and 2b in Table 3). This effect, however, might hold only in the Western countries: it gets stronger in the model with interactions and the coefficient of the interaction has an opposite sign (though it is not significant). Parity does not seem to play a role for the chance of becoming a *sooner-than-intended* father rather than a LINK. In contrast, being a father of at least two children decreases the odds of getting an unintended child as opposed to not having further children as planned (i.e. being a NINK), whereas it is not significant for women (Models 3b and 4b in Table 4).

Women who have experienced a partnership break-up are much more likely to realise their intention to have no (further) children in the near future or ever (Models 1b and 2b in Table 3 and Models 3b and 4b in Table 4). Remaining single raises the chances to become a LINK, but plays no role in the odds of being a NINK. Both effects were not possible to estimate for men. Women who did not have a co-resident partner at wave 1 but have found one by wave 2 are three times more likely to get an unintended child than to stick to their intention of not having any further children. This finding does not hold for the *sooner-than-intended* mothers. However, contradictory to our expectations, men who were single at wave 1 but partnered at wave 2 have 60% higher chances to be a *sooner-than-intended* father than a LINK.

Both education and employment affect only women's chances of becoming *unintended* mothers; they do not play any role in case of men or the *sooner-than-intended* parents. Being employed diminishes the odds of becoming an *unintended* mother as opposed to not having any (further) children as planned. In contrast, highly educated women are more likely to experience an unintended birth. However, this holds only for the Western countries. In the post-socialist ones the relationship goes in the opposite direction: university degree diminishes the odds of being an *unintended* mother rather than a NINK. Overall, highly educated women in the East are two and a half times more likely to be NINKs as opposed to *unintended* mothers than university graduates in the West.

7 Conclusions and Discussion

This analysis provides insight into who fails to realise short-term intentions of not having a child in six European countries, including three post-socialist ones. We distinguished between those who got a child sooner than intended and those who got one despite stating no intention to have any. We found that the main difference between these two groups lies in their demographic characteristics: *unintended* parents tend to be older and to have (more) children than the *sooner-than-intended* ones. Further, both the *unintended* and *sooner-than-intended* parents are younger than the NINKs and LINKs, respectively, i.e. those who succeeded in fulfilling their negative fertility intentions. Compared to *intentional* parents, the *unintended* ones are on average older and the *sooner-than-intended* ones are usually younger.

Our analysis also shows that partnership context affects women's childbearing intentions more strongly than men's. Both changing partners and finding a new one after being single vastly raises the odds of an unexpected birth (compared to having the same partner at wave 1 and 2) against an intended one among women, but among men only the latter one, i.e. the transition from being single to being partnered, matters. Entering a new union after being single makes women also more likely to get an unintended baby than to become a NINK, whereas for men it increases the chances of being a LINK than a sooner-than-intended father. Thus, women's intention to have a child is more contingent on having a partner or on having the right one than men's: women are more likely than men to change their initially negative family plans or to start making family plans once they meet a new partner.

Women and men also differ when it comes to the effect of employment. For men, being employed was not significant in any of the estimated models. For women, however, it substantially lowered the odds of becoming an *unintended* mother as opposed to both an *intentional* one and a NINK. We can interpret this as a tendency of employed women to plan their childbearing more cautiously than their unemployed peers. This could partly explain the importance of partnership change for women: as *unintended* mothers are less likely than the *intentional* ones or the NINKs to be employed, they might be more often in need of a partner who would provide the family with income.

In line with Williams et al.'s results (1999) we also found that having one child as opposed to none increases the chances of getting a second one sooner than initially planned. This effect, however, holds only for one-child mothers. Among men the likelihood to be a *sooner-than-intended* father rather than an *intentional* one increases when they have at least two children; this makes also an *unintended* fatherhood less likely as opposed to NINKs (in both cases the chances are compared to those of respondents who had no children at wave 1). Overall, however, having children (especially two or more) affects most strongly the chances of becoming *unintended parents* instead of *intentional* ones: for both women and men it seems that third and further births are rather rarely intentional, often representing excess fertility.

Our results further show that it is more difficult for the Eastern Europeans to realise not only their intentions to have a child but also the intentions not to have one. Compared to Western Europe, living in a post-socialist country makes it more likely to experience an unexpected birth as opposed to an intentional one. It does not matter, however, for the odds of being a sooner-than-intended or an *unintended parent* against being a LINK or NINK, respectively. This finding makes the conclusions formulated for Italian women (Gribaldo et al. 2009) plausible also in case of post-socialist countries: in a context where *it is never a good time to have a child* (because of the institutional and economic instability and, in particular in the) no explicit planning is more socially and psychologically acceptable than rigorous and careful planning. In both Southern and Eastern Europe the adverse conditions include high housing cost, lacking childcare for pre-kindergarten children and a precarious

labour market, which in the South translates into job instability and high unemployment among young people, whereas in the post-socialist countries the difficulties pertain rather to institutional instability (frequently changing laws and regulations) and low wages. Both regions typically occupy the bottom positions in European rankings measuring the family friendliness of the labour market, possibilities of combining work and family, or gender equality (e.g. OECD 2018).

Further, in Eastern Europe we observe educational differences between *unintended* and *intentional parents*, which are absent in Western Europe. In Bulgaria, Hungary and Poland *unintended parents*, notably mothers, have less often a university degree than *intentional parents*. This might be another indicator of particularly adverse circumstances for having a family in post-socialist countries. Both sexes face very demanding and competitive labour market with little employment protection. In addition, in case of women the pressure on and the need for their labour force participation clashes with relatively traditional attitudes towards the gender-role division in the family. Consequently, university graduates, who have already invested more in their education than their less educated peers and who might have more expectations both about their professional careers and about what is needed to be a good/successful parent, are probably particularly careful in their family planning.

The East-West division is also visible in the effect of parity on the likelihood of becoming an *unexpected* mother. In post-socialist countries, having at least two children instead of being childless raises the odds of becoming a sooner-than-intended mother as opposed to an *intentional* one. This effect is absent in the West. In case of *unintended* mothers, both in the West and in the East they have more often children than the *intentional* ones, but living in the East strengthens this effect. It might reflect a weaker selection into parenthood but a stronger one into having more than one child: in post-socialist countries one-child families are becoming increasingly popular, far more than in Western Europe where people rather tend to have either at least two children or none (Brzozowska et al. 2017).

To our knowledge, this is the first comparative analysis of unintended and sooner-than-intended births examined from a prospective perspective. Besides finding clear differences between the two types of unexpected births (the unintended and sooner-than-intended ones) and identifying factors that are (un)favourable to becoming an *unexpected parent* we contribute to the debate on what the questions on short-term childbearing intentions in fact measure. However, the analysis suffers from some limitations. First, we were not able to take into account aborted pregnancies. Consequently, we do not capture those pregnancies which had the highest probability of being unwanted or mistimed. Second, the sample size did not allow us to distinguish between the certain (*definitely not*) and less certain (*probably not*) fertility intentions. We expect that respondents who *definitely* had not intended to have a child were more successful in fulfilling their plan than those who only *probably* had not intended a child. Third, again due to a low number of cases we included only a limited number of factors in our analysis. These were mostly specified as binary variables and could not be included in a more nuanced way due to small numbers.

Our results show that not realising negative fertility intentions is linked more to a particular stage in one's life course and finding a new partner than to a disadvantaged socio-economic status. Thus, unintended and sooner-than-intended births, when analysed in a prospective set-up, should not be understood as unwanted or mistimed, but rather as a result of change in one's life circumstances between the time of measuring the fertility intentions and their realisation. Such births should not be labelled as *unintended* or *sooner-than-intended*, either, as they are likely to be neither unintended nor sooner-than-intended. There is certainly a need for a new, more neutral term.

References

- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. doi:11016/0749-5978(91)90020-T
- Ajzen, I., and M. Fishbein. 2005. The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, and M. P. Zanna (Eds.), *The Handbook of Attitudes* (pp. 173–221). Lawrence Erlbaum Associates.
- Balbo, N., F. C. Billari and M. Mills. 2013. Fertility in Advanced Societies: A Review of Research. *European Journal of Population*, 29(1), 1–38. doi:11007/s10680-012-9277-y
- Beaujouan, É. 2014. Counting how many children people want: The influence of question filters and pre-codes. *Demográfia*, 56(6), 35–61.
- Beaujouan, É. and T. Sobotka. 2014. Women and men in later reproductive ages: fertility intentions and childbearing. In I. Buber-Ennsner, N. Neuwirth, and M. R. Testa (Eds.), *Families in Austria 2009-2013*. Vienna: Vienna Institute of Demography and Austrian Institute for Family Studies at the University of Vienna.
- Begall, K., and M. Mills. 2011. The Impact of Subjective Work Control, Job Strain and Work–Family Conflict on Fertility Intentions: a European Comparison. *European Journal of Population*, 27(4), 433–456. doi:11007/s10680-011-9244-z
- Billari, F. C., A. Goisis, A. C. Liefbroer, R. A. Settersten, A. Aassve, G. Hagestad, and Z. Spéder. 2010. Social age deadlines for the childbearing of women and men. *Human Reproduction*, 616–622. doi:11093/humrep/deq360
- Billingsley, S. T. and Ferrarini. 2014. Family Policy and Fertility Intentions in 21 European Countries. *Journal of Marriage and Family*, 76(2), 428–445. doi:11111/jomf.12097
- Brzozowska, Z., É. Beaujouan, É. and K. Zeman. 2017. Why Has the Share of Two-Child Families Stopped Growing? Trends in Education-Specific Parity Distribution in Low-Fertility Countries. *VID Working Paper*, (14/2017).
- Brzozowska, Z. and M. Mynarska. 2017. Fertility Intentions and Their Realisation: Insights from the Polish Generations and Gender Survey. *VID Working Paper*, (16/2017).
- Buber-Ennsner, I. 2014. Childbearing intentions – postponed or abandoned? In I. Buber-Ennsner, N. Neuwirth and M. R. Testa (Eds.), *Families in Austria 2009-2013*. Vienna: Vienna Institute of Demography and Austrian Institute for Family Studies at the University of Vienna.
- D’Angelo, D. V., B. C. Gilbert, R. W. Rochat, J. S. Santelli, and J. M. Herold. 2004. Differences Between Mistimed and Unwanted Pregnancies Among Women Who Have Live Births. *Perspectives on Sexual and Reproductive Health*, 36(5), 192–197. doi:11363/3619204
- Dereuddre, R., B. V. de Putte and P. Bracke. 2016. Ready, Willing, and Able: Contraceptive Use Patterns Across Europe. *European Journal of Population*, 32(4), 543–573. doi:11007/s10680-016-9378-0
- Dereuddre, R., S. Van de Velde and P. Bracke. 2016. Gender inequality and the ‘East-West’ divide in contraception: An analysis at the individual, the couple, and the country level. *Social Science and Medicine*, 161, 1–12. doi:11016/j.socscimed.2016.05.030

- Dommermuth, L., J. Klobas and T. Lappegård. 2015. Realization of fertility intentions by different time frames. *Advances in Life Course Research*, 24, 34–46. doi:11016/j.alcr.2015.02.001
- Fahlén, S. and L. Oláh. 2015. The impact of economic uncertainty on childbearing intentions in Europe. *Families and Societies Working Paper Series*, (36. www.familiesandsocieties.eu/wp-content/uploads/2015/06/WP36FahlenOlah2015.pdf
- Finer, L. B., and S. K. Henshaw. 2006. Disparities in Rates of Unintended Pregnancy In the United States, 1994 and 2001. *Perspectives on Sexual and Reproductive Health*, 38(2), 90–96. doi:11363/3809006
- Finer, L. B., and M. R. Zolna. 2016. Declines in Unintended Pregnancy in the United States, 2008–2011. *New England Journal of Medicine*, 374(9), 843–852. doi:11056/NEJMSa1506575
- Gribaldo, A., M. D. Judd and D. I. Kertzer. 2009. An “Imperfect” Contraceptive Society: Fertility and Contraception in Italy. *Population and development review*, 35(3), 551–584.
- Hanappi, D. and I. Buber-Ennsner. 2017. When Paid Work Matters for Fertility Intentions and Subsequent Behavior: Evidence from Two Waves of the Austrian Gender and Generation Survey. *Comparative Population Studies*, 42, 245–28
- Hanappi, D., V.-A. Ryser, L. Bernardi, and J.-M. L. Goff. 2017. Changes in Employment Uncertainty and the Fertility Intention–Realization Link: An Analysis Based on the Swiss Household Panel. *European Journal of Population*, 1–27. doi:11007/s10680-016-9408-y
- Hellevik, T. and R. A. Settersten. 2013. Life Planning among Young Adults in 23 European Countries: The Effects of Individual and Country Security. *European Sociological Review*, 29(5), 923–938. doi:11093/esr/jcs069
- Henshaw, S. K. 1998. Unintended Pregnancy in the United States. *Family Planning Perspectives*, 30(1), 24–46. doi:12307/2991522
- Hiekel, N. and T. Castro-Martín. 2014. Grasping the Diversity of Cohabitation: Fertility Intentions Among Cohabiters Across Europe. *Journal of Marriage and Family*, 76(3), 489–505. doi:11111/jomf.12112
- Kapitány, B. and Z. Spéder. 2012. Realization, Postponement or Abandonment of Childbearing Intentions in Four European Countries. *Population (English Edition, 2002-)*, 67(4), 599–629.
- Kost, K. and J. D. Forrest. 1995. Intention Status of U.S. Births in 1988: Differences by Mothers’ Socioeconomic and Demographic Characteristics. *Family Planning Perspectives*, 27(1), 11–17. doi:12307/2135971
- Kuhnt, A.-K. and H. Trappe. 2013. *Easier said than done: Childbearing intentions and their realization in a short term perspective* (Vol. 18. Rostock: MPIDR Working Paper. www.demogr.mpg.de/papers/working/wp-2013-018.pdf. Accessed 8 May 2017
- Kuhnt, A.-K. and H. Trappe. 2016. Channels of social influence on the realization of short-term fertility intentions in Germany. *Advances in Life Course Research*, 27, 16–29. doi:11016/j.alcr.2015.1002

- Liefbroer, A. C., E.-M. Merz and M. R. Testa. 2015. Fertility-Related Norms Across Europe: A Multi-level Analysis. In D. Philipov, A. C. Liefbroer, and J. Klobas (Eds.), *Reproductive Decision-Making in a Macro-Micro Perspective*. Springer Netherlands. www.springer.com/us/book/9789401794008. Accessed 17 February 2018
- Mills, M., K. Begall, L. Mencarini, and M. L. Tanturri. 2008. Gender equity and fertility intentions in Italy and the Netherlands. *Demographic Research*, 18(1), 1–26. doi:14054/DemRes.2008.18.1
- Morgan, S. P. and H. Rackin. 2010. The Correspondence Between Fertility Intentions and Behavior in the United States. *Population and Development Review*, 36(1), 91–118. doi:11111/j.1728-4457.20100319.x
- Mynarska, M. 2009. Deadline for Parenthood: Fertility Postponement and Age Norms in Poland. *European Journal of Population*, 26(3), 351–373. doi:11007/s10680-009-9194-x
- Ní Bhrolcháin, M. and É. Beaujouan. 2012. Fertility postponement is largely due to rising educational enrolment. *Population Studies*, 66(3), 311–327. doi:11080/00324728.2012.697569
- OECD (2018. Family Database [electronic resource]. www.oecd.org/els/family/database.htm.
- Pailhé, A. 2009. *Work-family balance and childbearing intentions in France, Germany and Russia*. Presented at the XXVI IUSSP International Population Conference, Marrakech, Morocco. <http://iussp2009.princeton.edu/papers/90811>
- Pailhé, A. and A. Régnier-Loilier. 2017. The Impact of Unemployment on the Realization of Fertility Intentions. In A. Régnier-Loilier (Ed.), *A Longitudinal Approach to Family Trajectories in France* (Vol. 7, pp. 123–146. Cham: Springer. doi:11007/978-3-319-56001-4_7
- Philipov, D. 2009. The Effect of Competing Intentions and Behaviour on Short-Term Childbearing Intentions and Subsequent Childbearing. *European Journal of Population / Revue européenne de Démographie*, 25(4), 525. doi:11007/s10680-009-9197-7
- Philipov, D., Z. Spéder and F. C. Billari. 2006. Soon, later, or ever? The impact of anomie and social capital on fertility intentions in Bulgaria (2002) and Hungary (2001). *Population Studies*, 60(3), 289–308. doi:11080/00324720600896080
- Riederer, B., and I. Buber-Ennsner. 2016. Realisation of Fertility Intentions in Austria and Hungary: Are Capitals Different? *VID Working Paper*, (8/2016).
- Schoen, R., N. M. Astone, Y. J. Kim, C. A. Nathanson and J. M. Fields. 1999. Do Fertility Intentions Affect Fertility Behavior? *Journal of Marriage and Family*, 61(3), 790–799. doi:12307/353578
- Spéder, Z., and B. Kapitány. 2009. How are Time-Dependent Childbearing Intentions Realized? Realization, Postponement, Abandonment, Bringing Forward. *European Journal of Population*, 25(4), 503–523. doi:11007/s10680-009-9189-7
- Spéder, Z., and B. Kapitány. 2014. Failure to Realize Fertility Intentions: A Key Aspect of the Post-communist Fertility Transition. *Population Research and Policy Review*, 33(3), 393–418. doi:11007/s11113-013-9313-6

- Testa, M. R. 2012. Couple disagreement about short-term fertility desires in Austria: Effects on intentions and contraceptive behaviour. *Demographic Research*, 26, 63–98. doi:14054/DemRes.2012.26.3
- Testa, M. R. 2014. Predictiveness of childbearing intentions. In I. Buber-Ennsner, N. Neuwirth, and M. R. Testa (Eds.), *Families in Austria 2009-2013*. Vienna: Vienna Institute of Demography and Austrian Institute for Family Studies at the University of Vienna.
- Testa, M. R., and L. Toulemon. 2006. Family formation in France: Individual preferences and subsequent outcomes. *Vienna Yearbook of Population Research 2006*, 41–75.
- Thomson, E. 1997. Couple childbearing desires, intentions, and births. *Demography*, 34(3), 343–354. doi:12307/3038288
- United Nations, Population Division. 2015. *Trends in Contraceptive Use Worldwide 2015*. New York: United Nations. www.un.org/en/development/desa/population/publications/pdf/family/trendsContraceptiveUse2015Report.pdf
- Vignoli, D., and A. Régnier-Loilier. 2011. Fertility Intentions and Obstacles to their Realization in France and Italy. *Population (English Edition, 2002-)*, 66(2), 361–389.
- Vikat, A., Z. Spéder, G. Beets, F. C. Billari, C. Bühler, A. Désesquelles, et al. 2007. Generations and Gender Survey (GGS): Towards a better understanding of relationships and processes in the life course. *Demographic Research*, 17(14), 389–444 doi:14054/DemRes.2007.17.14
- Williams, L., J. Abma, J. and L. Piccinino. 1999. The correspondence between intention to avoid childbearing and subsequent fertility: a prospective analysis. *Family Planning Perspectives*, 5(31), 220–227.
- Williams, L. B. 1991. Determinants of Unintended Childbearing Among Ever-Married Women In the United States: 1973-1988. *Family Planning Perspectives*, 23(5), 212–221. doi:12307/2135755

Appendix

Table A1

Distribution of fertility intentions in the original sample and in the final panel sample (in %), unweighted data

	Fertility intentions, wave 1				Fertility intentions, final panel sample			
	Later than within 3 years	No	Yes, within three years	No answer	Later than within 3 years	No	Yes, within three years	No answer
Austria	20	45	29	6	19	46	29	6
Bulgaria	15	55	25	5	15	58	24	4
France	11	50	30	8	10	51	30	9
Hungary	26	43	24	8	24	44	24	8
Italy	20	51	26	3	20	51	26	3
Poland	15	51	28	6	13	56	26	6

Note: Respondents aged 21-45, fecund and, if partnered, with fecund partners.

Table A2

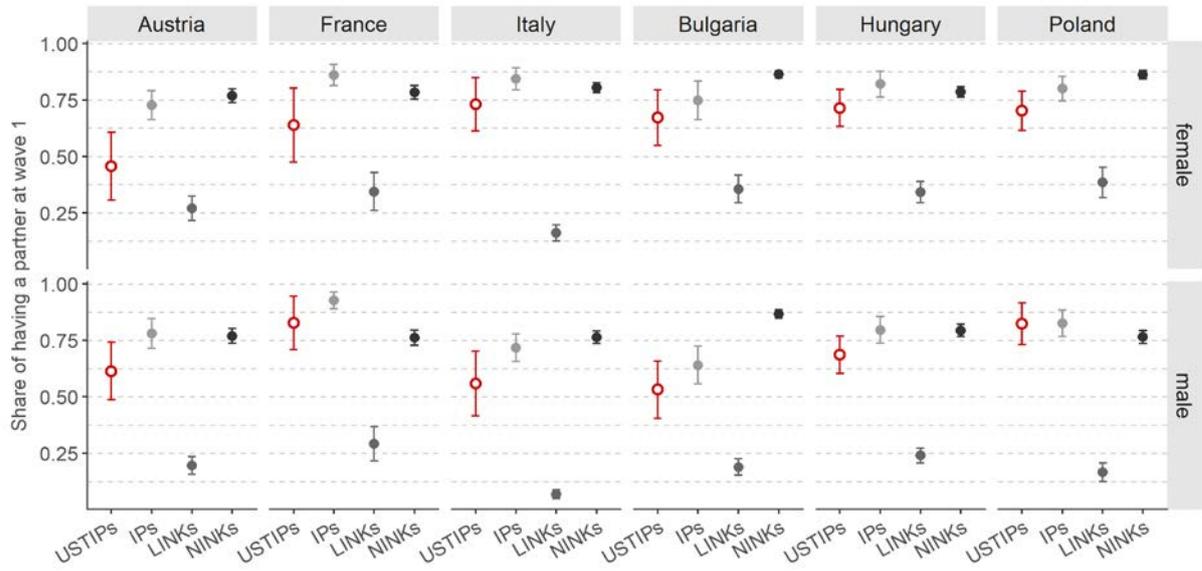
Distribution of long- and short-term fertility intentions, unweighted final panel sample

Do you want to have a child within the next three years?	Do you want to have a child at all?								ALL
	definitely not	no	probably not	definitely yes	yes	probably yes	no answer	not asked	
definitely not	7,441	0	777	493	0	612	88	0	9,411
no	0	2,192	0	0	1,198	0	0	0	3,390
probably not	432	0	1,839	811	0	1,112	66	0	4,260
definitely yes*	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,984	1,984
yes*	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	1,120	1,220
probably yes*	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	3,371	3,371
<i>no answer</i>	160	0	28	82	0	56	1,268		1,594
ALL	8,058	2,192	2,662	2,049	1,198	2,190	1,422	6,475	25,230

* According to the guidelines, the question "Do you want to have a child at all?" should not have been asked to those who (definitely/probably) wanted to have a child within the next three years". Nevertheless, in Bulgaria the filters were not implemented entirely correctly, and some were asked this question. These were recoded as *n.a.* (*not asked*) in our analyses and do not impose any consequences or bias for our analysis.

Figure 9

Share of respondents with a partner at wave 1 together with 95% confidence interval (whiskers), by respondent group, country and sex, weighted data



Working Papers

Berghammer, Caroline and Bernhard Riederer, *The Part-Time Revolution: Changes in the Parenthood Effect on Women's Employment in Austria*, VID Working Paper 5/2018.

Bora, Jayanta Kumar, Rajesh Raushan and Wolfgang Lutz, *Contribution of Education to Infant and Under-Five Mortality Disparities among Caste Groups in India*, VID Working Paper 3/2018.

Matysiak, Anna, Tomáš Sobotka and Daniele Vignoli, *The Great Recession and Fertility in Europe: A Sub-National Analysis*, VID Working Paper 2/2018.

Abel, Guy, Valeria Bordone, Raya Muttarak and Emilio Zagheni, *Bowling Together: Scientific Collaboration Networks of Demographers at European Population Conferences*, VID Working Paper 1/2018.

Nitsche, Natalie, *Partners' Educational Pairings, Work Divisions, and Fertility: Evidence from Germany*, VID Working Paper 19/2017.

Spahl, Wanda, Sabine Weiss, Judith Kohlenberger and Isabella Buber-Ennser, *Immigration and the Social Welfare State in Austria, Germany, and Switzerland: A Comparative Meta-Study*, VID Working Paper 18/2017.

Hoffmann, Roman, *Following the Peers: The Role of Social Networks for Health Care Utilization in the Philippines*, VID Working Paper 17/2017.

Brzozowska, Zuzanna and Monika Mynarska, *Fertility Intentions and Their Realisation: Insights from the Polish Generations and Gender Survey*, VID Working Paper 16/2017.

Yildiz, Dilek, Peter G.M. van der Heijden and Peter W.F. Smith, *Estimating Population Counts with Capture-Recapture Models in the Context of Erroneous Records in Linked Administrative Data* VID Working Paper 15/2017.

Brzozowska, Zuzanna, Éva Beaujouan and Kryštof Zeman, *Why Has the Share of Two-Child Families Stopped Growing? Trends in Education-Specific Parity Distribution in Low-Fertility Countries*, VID Working Paper 14/2017.

Rengs, Bernhard, Isabella Buber-Ennser, Judith Kohlenberger, Roman Hoffmann, Michael Soder, Marlies Gatterbauer, Kai Themel and Johannes Kopf, *Labour Market Profile, Previous Employment and Economic Integration of Refugees: An Austrian Case Study*, VID Working Paper 13/2017.