



# DEMOGRAPHIC RESEARCH

*A peer-reviewed, open-access journal of population sciences*

---

## ***DEMOGRAPHIC RESEARCH***

**VOLUME 43, ARTICLE 23, PAGES 659–672**

**PUBLISHED 1 SEPTEMBER 2020**

<https://www.demographic-research.org/Volumes/Vol43/23/>

DOI: 10.4054/DemRes.2020.43.23

*Descriptive Finding*

### **Three facets of planning and postponement of parenthood in the Netherlands**

**Renske Verweij**

**Melinda Mills**

**Harold Snieder**

**Gert Stulp**

© 2020 Verweij, Mills, Snieder & Stulp.

*This open-access work is published under the terms of the Creative Commons Attribution 3.0 Germany (CC BY 3.0 DE), which permits use, reproduction, and distribution in any medium, provided the original author(s) and source are given credit.*

*See <https://creativecommons.org/licenses/by/3.0/de/legalcode>.*

## Contents

1	Introduction	660
2	Data and methods	661
2.1	Data	661
2.2	Measurements	661
2.3	Methods	662
3	Results	662
3.1	Desired timing of parenthood	662
3.2	Continued postponement	665
3.3	Child at the desired time	666
3.4	Relation between the three facets of postponement	666
4	Conclusions	668
5	Acknowledgements	669
	References	670

## **Three facets of planning and postponement of parenthood in the Netherlands**

**Renske Verweij<sup>1</sup>**

**Melinda Mills<sup>2</sup>**

**Harold Snieder<sup>3</sup>**

**Gert Stulp<sup>4</sup>**

### **Abstract**

#### **BACKGROUND**

The age at parenthood has risen by about five years in the last decades in the Netherlands. Previous studies typically focused on the age at which people have their first child, but little is known about desired timing of parenthood and how this desire changes.

#### **OBJECTIVE**

In this study, we examined three facets of postponement: (1) desired age to have a first child, (2) changes in this desired age, and (3) whether the desires are met.

#### **METHODS**

We use data from the Longitudinal Internet Studies for the Social Sciences (N = 2,296), which is a representative sample of men and women in the Netherlands who have been followed for up to ten years.

#### **RESULTS**

Men and women desire to have children at relatively high ages, i.e., around age 30. About half of the respondents update these desires by increasing the desired age as they get older. Half of respondents do not become a parent at their desired time.

#### **CONCLUSIONS**

The high ages at first birth observed are due to a combination of the three facets of postponement.

---

<sup>1</sup> Department of Public Administration and Sociology, Erasmus University, the Netherlands.  
Email: [verweij@essb.eur.nl](mailto:verweij@essb.eur.nl).

<sup>2</sup> University of Oxford, UK.

<sup>3</sup> University Medical Center Groningen, the Netherlands.

<sup>4</sup> Rijksuniversiteit Groningen, the Netherlands.

## **CONTRIBUTION**

This study contributes to the literature by showing that the high observed age at which people have children nowadays is due to high desired ages, updating these desires upwards, and not achieving their desired timing.

## **1. Introduction**

In many countries in the last decades, a steady trend is observed where people are having children at higher ages (Beaujouan and Sobotka 2017; Bongaarts, Mensch, and Blanc 2017). In the Netherlands, for example, the age when women have their first child increased from an average of 25 in 1970 to 29 in 2015 (Beaujouan and Sobotka 2017). A substantial body of research has focused on what causes people to have children at higher ages (for review, see Mills et al. 2011), and has established that the rise in female educational attainment and labour force participation, the introduction of contraceptive technologies, housing and economic insecurity, and smaller desired family sizes are fundamental drivers of the increasing age at first birth.

Research on postponement primarily focuses on the age at which people have their first child. Here we argue that a deeper understanding of the postponement of parenthood requires taking into account three facets. The first facet is desired timing of parenthood, by which we mean the age at which people desire to have their first child. The second facet is continued postponement, which is the extent to which people adjust their desired timing of first birth over the life course. This will give insight into whether people's desires at earlier ages are realistic. The third facet refers to whether or not people have a child at their desired age. This will inform us about the consequences of postponement in terms of unrealized childbearing desires leading to childlessness. Studying these facets provides further insights into the high ages at first birth observed. It allows us to distinguish which part of the high ages at first birth observed nowadays is due to the desire to have children at high ages, or due to alternative explanations including continued and unplanned postponement.

Our study focuses on the Dutch context, which is characterized by a high age at first maternal birth of 30 years and a relatively high childlessness rate of 17% among women born around 1970 (Human Fertility Database 2020) (compared to a European average AFB of 29.2 [Eurostat 2020] and 14% childlessness [Sobotka 2017]). We examine the three facets of postponement of parenthood using data from the Longitudinal Internet Study for the Social Sciences (LISS), which is a representative sample of the Dutch population. We focus on individuals between the ages of 18 and 45 who have been followed for a maximum of ten years and are asked about their desired

age to have a first child at every wave. We take into account the age at which respondents are asked about their fertility desires and behavior, since age is related to the time frame within which people want their first child (Dommermuth, Klobas, and Lappegård 2011), as well as the realization of these plans (Berrington 2004; Régnier-Loilier and Vignoli 2011; Spéder and Kapitany 2015).

## **2. Data and methods**

### **2.1 Data**

In this paper we make use of data of the LISS (Longitudinal Internet Studies for the Social sciences) panel from the Netherlands, administered by CentERdata (Tilburg University, the Netherlands). We use data from the LISS core studies, which are yearly repeated questionnaires distributed among LISS participants starting in 2008. The last year for which we have data available is 2017. Respondents could enter the panel in every wave. The sample of respondents who entered the panel in 2008 is based on a probability sample of households in the Netherlands, drawn from the population register by Statistics Netherlands (Scherpenzeel 2009). However, a study on the representativeness indicated an underrepresentation of older and lower-educated individuals in the first wave of the LISS (Knoef and Vos 2009). For that reason, in follow-up waves respondents are added based on a stratified sample to improve representativeness at the individual level.

The complete LISS sample contains in total 24,424 individuals. For the purpose of our study, we selected respondents who indicated that they thought they would have a child in the future, but removed individuals who expected a child in less than one year because they were likely already pregnant, dropping the sample size to 2,865 respondents. We selected women who were between age 18 and 45 at their first interview wave and men who were between 18 and 50 in their first wave, which slightly lowers the sample size to 2,850 respondents. We then selected only individuals who did not have children at the time of the interview, resulting in a sample size of 2,296 individuals.

### **2.2 Measurements**

The first facet of postponement, desired timing of parenthood, assesses fertility plans of individuals. This was measured with the question: Within how many years do you hope to have your first child? Those respondents who did not have children before the next

interview were again asked in how many years they hoped to have their first child. The differences between the ages at different waves was calculated as a measure of continued postponement (facet 2). Based on information of whether respondents had a child in between waves, we could calculate whether respondents had a child at the desired time (facet 3) or not. People were considered to have a child at the desired time if they had their child in the number of years they indicated plus one.

## **2.3 Methods**

We graphically and descriptively display the distribution of the desired age of becoming a parent, the change in this desired age between waves, and the distribution of men and women who did or did not have a child at their desired time. We furthermore display the relationship between the three facets of postponement. For the desired age of becoming a parent, we display the mean age for the complete sample as well as for the sample of respondents aged 18–22. We made this selection because in this younger age group childbearing is uncommon in the Netherlands, and therefore this group is unlikely to have already postponed childbearing.

## **3. Results**

### **3.1 Desired timing of parenthood**

People desire to have their first child at relatively high ages. The average age that women desire to have their first child is 30.34 years ( $SD = 4.27$ ); for men, this age is 32.70 years ( $SD = 5.05$ ) (see Figure 1A). This desired age is lower when restricting the sample to individuals between 18 and 22 years of age; for women on average at 28.65 years of age, and for men at 30.37 years of age (see Figure 1B). While people who are older (and have not yet had any children, but do want them) obviously desire to have a child at older ages, they desire to have a child much quicker than their younger counterparts. Those who are under 22 desire their first child in 10.97 and 9.26 years (for men and women respectively), while those who are between 27 and 30 desire to have a child in 4.5 or 3.7 years (for men and women respectively), which is on average at age 33 for men and 32 for women (see Table 1).

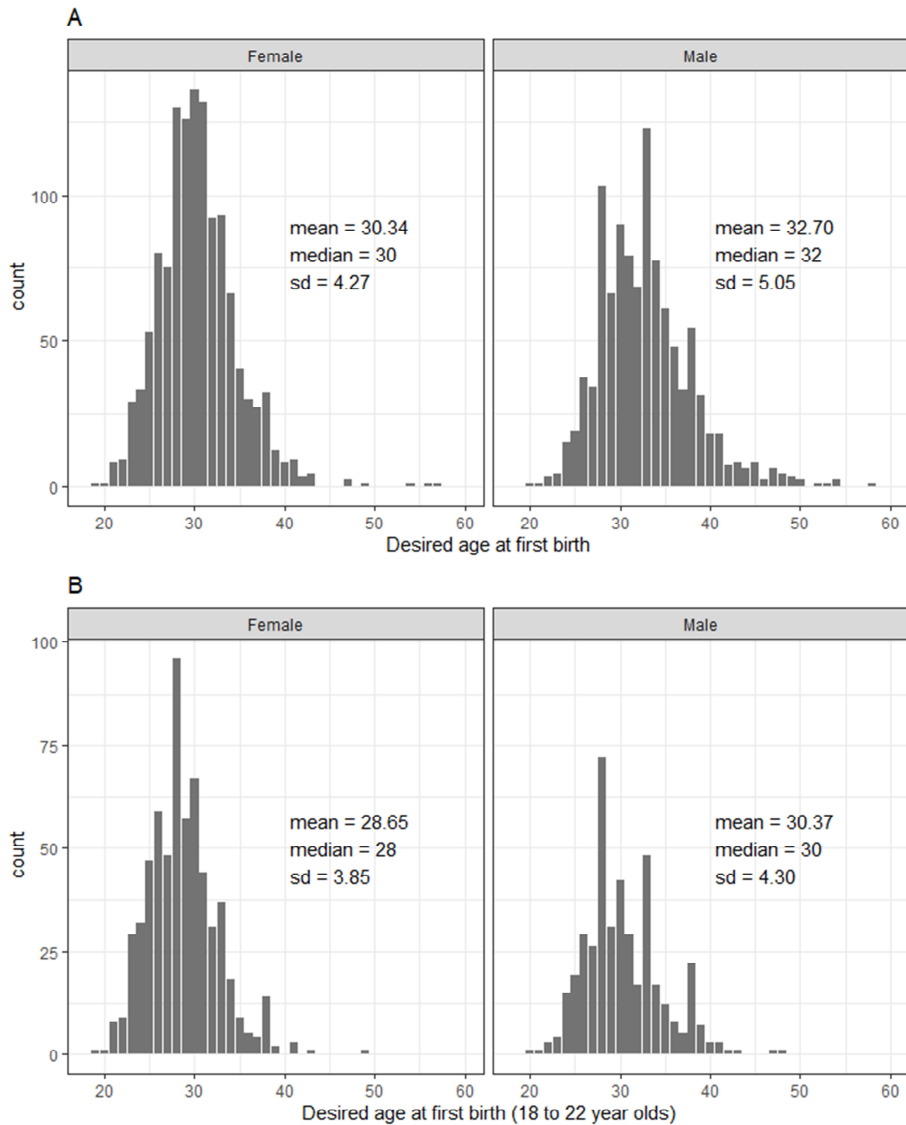
**Table 1: Description of the three facets of postponement for men and women of different age groups**

	Facet 1: Desired timing of parenthood				Facet 2: Continued				Facet 3: Child at the desired time						
	Child in how many years? (first wave)				Difference in desired age between waves				Had a child within time frame (from first wave)						
	total n	prop	mean	sd	mean	sd	n	prop	prop no	n	prop unknown	n	prop yes	n	
All	2289	1.00	6.96	4.64	31.44	4.8	2.9	2.98	1225.	.12	270.	.76	1698.	.12	275.
Men	1034	.46	7.27	4.89	32.75	5.05	.36	2.93	505	.11	111	.78	795	.11	115
Child in follow up															
No	260	.25	8.81	5.03	33.07	5.19	.07	3.19	176	.25	67	.74	193		
Unknown	646	.62	7.35	4.81	32.52	5.1	.62	2.99	252	.05	31	.95	602		
Yes	128	.12	3.69	2.66	33.26	4.44	.14	1.81	77	.1	13			.89	115
Age															
Under 22	418	0.40	10.97	4.57	30.37	4.3	.41	3.81	204	.06	25	.92	382	.02	9
23 to 26	203	0.20	6.66	3.44	31.24	3.24	.24	2.86	91	.1	19	.81	161	.1	20
27 to 30	198	0.19	4.5	2.57	32.99	2.71	.35	1.87	108	.11	32	.66	128	.23	45
31 to 34	115	0.11	3.48	5.63	35.8	2.85	.27	1.65	65	.17	19	.63	70	.21	23
Over 35	100	0.10	2.81	2.29	41.75	4.6	.54	1.5	37	.27	27	.55	54	.18	18
Women	1235	.54	6.66	4.4	30.34	4.27	.25	3.02	720	.13	159	.74	903	.13	160
Child in follow up															
No	398	.32	8.13	4.18	30.51	4.02	.4	3.35	302	.24	96	.76	302		
Unknown	654	.53	6.69	4.46	30.21	4.58	.22	3.04	300	.06	40	.94	601		
Yes	183	.15	3.3	2.33	30.46	3.64	-.09	1.76	118	.12	23			.88	160
Age															
Under 22	623	.50	9.26	3.96	28.65	3.85	.38	3.68	346	.07	46	.87	550	.04	25
23 to 26	242	.19	5.23	3.	29.63	2.92	-.18	2.035.	164	.13	31	.72	172	.15	37
27 to 30	225	.18	3.71	3.12	31.88	3.19	.2	1.64	125	.17	37	.55	120	.28	61
31 to 34	94	.07	2.56	1.47	34.81	1.71	.45	2.92	62	.27	25	.45	42	.28	26
Over 35	51	.04	2.	1.77	39.31	2.48	1.	1.5	23	.4	20	.38	19	.22	11

Note: For planned postponement we use information from the first wave available for each respondent. For continued postponement we only use the first wave available in which people indicated their desired age at first birth for the second time (and thus the first change score could be calculated). For facet 3, in this table we display whether respondents had a child at the desired time that they indicated in the first available wave. We present the proportion who did not have a child at their desired time, the proportion for whom we do not know this, and the proportion who had a child at their desired time.

Source: LISS data.

**Figure 1: Distribution of desired age at first birth, among all respondents (part A) and respondents between 18–22 years old (part B)**



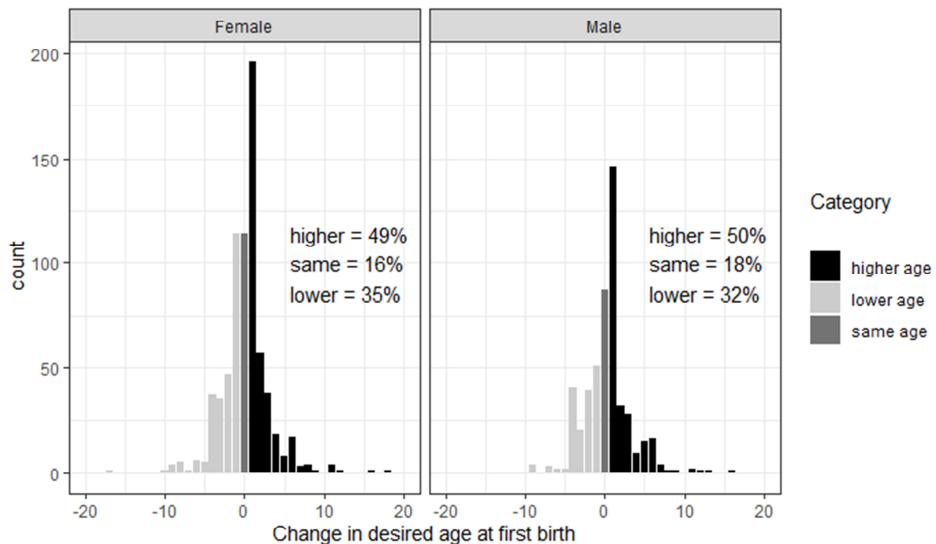
Source: LISS data, figure produced by the authors.



### 3.2 Continued postponement

In total, 1,225 respondents gave information more than once about their desired timing to have their first child. Approximately 34% lowered their desired age, 17% did not change their desired age, and 49% increased their desired age (see Figure 2 for the distribution of changes in desired age and the differences between men and women). Men increased their desired age more than women did; on average, they increased with 0.36 years between two available waves, while women increased it with 0.25 years (see Table 1). The older people get, the more they change their desired age upwards; those between 23–26 barely increased this age (0.24 for men and -0.18 for women), while those over 35 increased it with 0.54 years for men and 1 year for women (see Table 1). An exception to this age trend was the respondents under 22, who also increased their desired age quite strongly.

**Figure 2: Change in desired age to have a first child between waves (continued postponement: this figure only includes the first change per individual)**



Source: LISS data, figure produced by the authors.

### 3.3 Child at the desired time

From all respondents in our sample ( $N = 2,269$ ), 270 (11%) had a child at their desired time. In total, 275 (12%) did not have a child at the desired time. This shows that only about 50% (270 from the total 545 [270 + 275]) of the respondents who were followed up with as long as their desired time frame had their child at their desired time (see Table 1). Women more often had a child at their desired time than men did, and respondents between 27–34 are more likely to have a child at their desired time than both those who are younger and those who are older (see Table 1). For 1,698 (76%) individuals it is unknown if they had a child at their desired time. This unknown status could be caused by the fact that they wanted a child in more years than the time of follow-up from the panel ( $n = 1370$ , 60%) or because they (either temporarily or permanently) dropped out of the sample of the study ( $n = 328$ ).

### 3.4 Relation between the three facets of postponement

People who desired to have a child in a shorter time span, such as in two or three years, were more likely to postpone their desired age in the next wave, while people who desired to have children in a longer time frame, such as in five or ten years, often decreased this desired age in subsequent waves (see Figure 3). This was the case for both men and women.

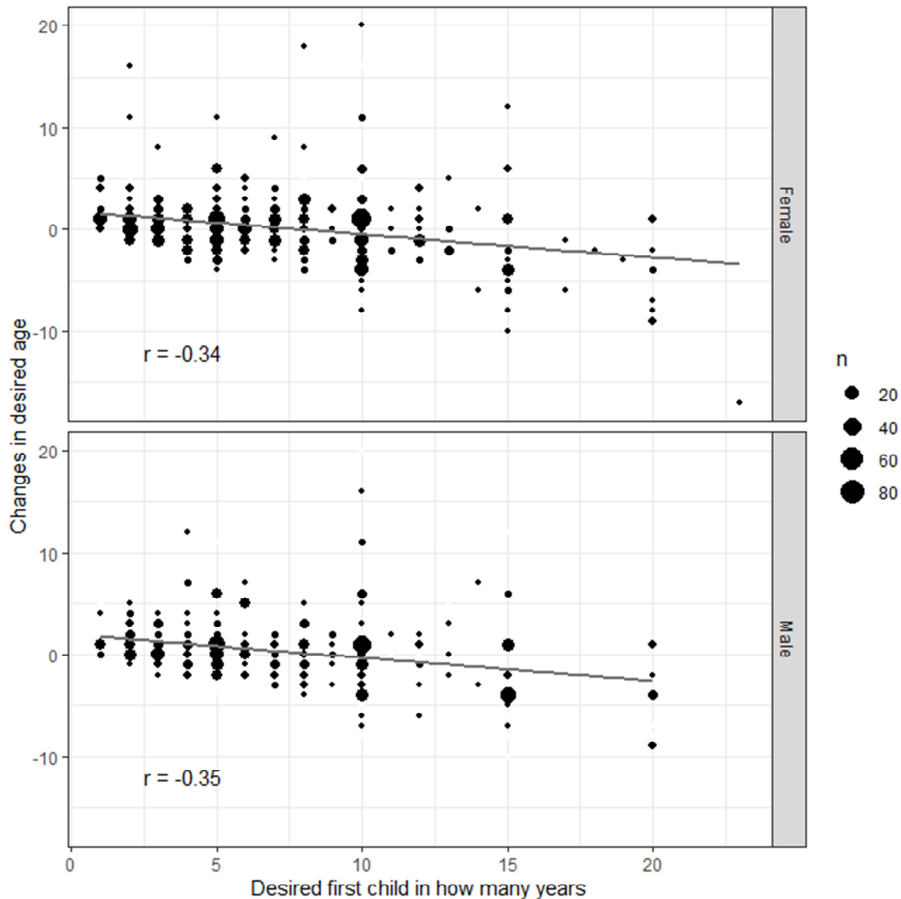
Those who desired to have a child later were less likely to have a child during their follow-up period; those who had a child during their follow-up on average desired to have it in 3.7 or 3.3 years (for men and women respectively), and those who did not have a child during follow-up desired to have it in 8.8 and 8.1 years (see Table 1). Of course, this is very much dependent upon their age at the first wave and the number of years that people are followed up. Therefore, we examine this also for the select sample of individuals ( $N = 521$ ) who were followed up with for eight waves and according to their age at first interview (see Figure 4). Also here we see that those who desired to have a child in a shorter term more often had a child during the follow-up period, which is true for both the younger respondents and the older respondents in our sample and for both men and women.

Among women, increasing the desired age between waves is related to being less likely to have a child during the follow-up waves (see Table 1). Women who did not have a child during follow-up increased their age with 0.4 years, and those who did have a child decreased with on average 0.09 years. Among men, this is not the case.

It is noteworthy that men and women who were around 30 years of age and above were most likely to desire to have a child in a short time frame (Table 1 and Figure 4).

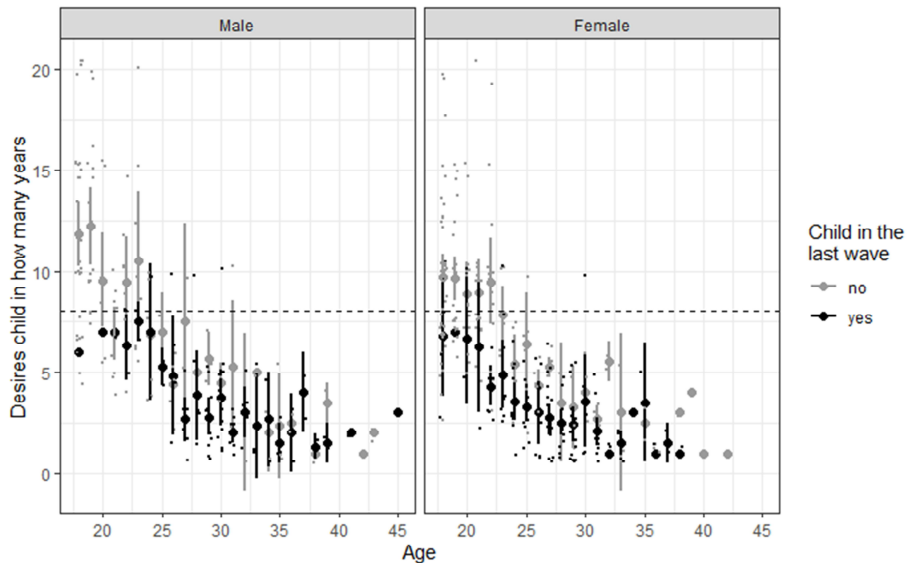
On the one hand, these older men and women who desire parenthood in a short time frame were more likely to have a child than the other age groups (Figure 4). On the other hand, these men and women were more likely than other age groups to further postpone this age in next years (Table 1).

**Figure 3: Relationship between desired timing of parenthood (wants child in how many years) and continued postponement (change in desired age)**



*Note:* Those who desired children at a shorter time frame more often postponed this desired age, while those who desired children in a longer time frame more often decreased this time frame. Source: LISS data, figure produced by the authors.

**Figure 4: Relationship between age and the number of years in which a person wants their first child**



*Note:* Black and grey distinguish between those who did and those who did not have a child in the last wave. The bigger dots represent the means and the bars are 95% confidence intervals. Select sample of only individuals who were followed up for eight waves (N = 521). The dashed line represents eight years, the number of years respondents were followed up with. Source: LISS data, figure produced by the authors.

## 4. Conclusions

The aim of this study was to examine three facets of postponement of parenthood to gain a better understanding of the high ages at first birth observed in the Netherlands (and also many other contemporary Western populations). It is clear that all three facets – desiring children at high ages, continuously postponing, and not having a child at the desired time – are involved in explaining these high ages. Firstly, men and women desire to have children at high ages; those who are between 18 – 22 desire to have their first child around the age of 29 (women) and 30 (men). Secondly, initial desires are often postponed to even later ages; about half (49% of the women and 50% of the men) increase their desired age in between waves, while only a third (35% of the women and 32% of the men) decrease their desired age and the remaining do not change their desired age. Thus, on top of already high desired ages, many men and women continue increasing this age as the life course unfolds.

Updating this desired age of becoming a parent is especially common among men and women who are approaching their own desired age to have a first child, which are typically older men and women. This is methodologically important, because it shows that asking individuals about their desired age to have a first child at higher ages probably does not give insight into the initially desired age to have children, but likely represents an updated age. This age is possibly updated because men and women already passed by their initial age, or because they realise that their initial age was not realistic.

Finally, only about 50% of the individuals who were followed up with as long as their desired time frame actually had a child at their desired time. This shows that despite high desired ages of first birth of around 30 years old as expressed by young individuals, almost half of men and women will not have a first child by this desired age. Also, in our study we find that older men and women are less likely to have a child at their desired time. This is likely an underestimation of the total effect of age, because these older individuals probably have already postponed this desired age earlier in their lives.

In conclusion, we find that the high ages at which people have children nowadays are partly caused by desiring to have a child late, but also due to increases in this desired age throughout the life course and by not meeting the desired age at first birth. Further understanding of postponement is important in light of the major increases in age at first birth seen in both developed and developing countries (Beaujouan and Sobotka 2017; Bongaarts et al. 2017). Future research on factors that influence the desired age of parenthood but also changes in this desired age and achieving or not achieving these desires will provide more insights in the reasons for the high age at first birth observed nowadays.

## **5. Acknowledgements**

The LISS panel data was collected by CentERdata (Tilburg University, The Netherlands) through its MESS project funded by the Netherlands Organization for Scientific Research. The research leading to these results received funding from the NWO awarded to the faculty of Behavioral and Social Sciences at the University of Groningen (awarded to RV/MM). GS was supported by an NWO VENI Grant (451-15-034). MM received funding ERC, Consolidator Grant SOCIOGENOME (615603), UK ESRC/NCRM SOCGEN grant (ES/N011856/1), and from the Wellcome Trust Institutional Strategic Support Fund and John Fell Fund.

## References

- Beaujouan, É. and Sobotka, T. (2017). Late motherhood in low-fertility countries: Reproductive intentions, trends and consequences. Human Fertility Database Research Report. <http://www.humanfertility.org/cgi-bin/reports.php>.
- Berrington, A. (2004). Perpetual postponers? Women's, men's and couple's fertility intentions and subsequent fertility behaviour. *Population Trends* 117: 9–19.
- Bongaarts, J., Mensch, B.S., and Blanc, A.K. (2017). Trends in the age at reproductive transitions in the developing world: The role of education. *Population Studies* 71(2): 139–154. doi:10.1080/00324728.2017.1291986.
- Dommermuth, L., Klobas, J., and Lappegård, T. (2011). Now or later? The theory of planned behaviour and fertility intentions. *Advances in Life Course Research* 16(1): 42–53. doi:10.1016/j.alcr.2011.01.002.
- Eurostat (2020). Fertility indicators: Mean age of women at birth of first child.
- Human Fertility Database (2020). Cohort childlessness at age 44. Human Fertility Database. Max Planck Institute for Demographic Research (Germany) and Vienna Institute of Demography (Austria). [www.humanfertility.org](http://www.humanfertility.org).
- Knoef, M. and de Vos, K. (2009). The representativeness of LISS, an online probability panel. Retrieved August, (March). [http://www.lissdata.nl/assets/uploaded/file/paper\\_knoef\\_devos\\_website.pdf](http://www.lissdata.nl/assets/uploaded/file/paper_knoef_devos_website.pdf).
- Mills, M.C., Rindfuss, R.R., McDonald, P., and te Velde, E.R. (2011). Why do people postpone parenthood? Reasons and social policy incentives. *Human Reproduction Update* 17(6): 848–860. doi:10.1093/humupd/dmr026.
- Régnier-Loilier, A. and Vignoli, D. (2011). Fertility intentions and obstacles to their realization in France and Italy. *Population* 66(2): 401–431. doi:10.3917/popu.1102.0401.
- Scherpenzeel, A. (2009). Start of the LISS panel: Sample and recruitment of a probability-based Internet panel. Tilburg.
- Sobotka, T. (2017). Childlessness in Europe: Reconstructing long term trends among women born in 1900–1972. In: Kreyenfeld, M. and Konietzka, D. (eds.). *Childlessness in Europe: Context, causes and consequences*. Cham: Springer Nature: 17–52. doi:10.1007/978-3-319-44667-7\_2.

Spéder, Z. and Kapitány, B. (2015). Influences on the link between fertility intentions and behavioral outcomes: Lessons from a European comparative study. In: Philipov, D., Liefbroer, A.C., and Klobas, J.E. (eds.). *Reproductive decision-making in a macro-micro perspective*. Cham: Springer Nature: 79–112. doi:[10.1007/978-94-017-9401-5\\_4](https://doi.org/10.1007/978-94-017-9401-5_4).

