Intergenerational transmission of age at first union and the effect of parental divorce

Preliminary results, please do not quote

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Introduction

Important life course transitions often have an intergenerational connection: for example young first-time mothers are likely to have young parents (Steenhof & Liefbroer 2008) and people who grew up in disrupted families run a higher risk of divorce (Dronkers & Härkönen 2008; Gähler et al. 2009).

This connection is related to the intergenerational transmission of attitudes, preferences and socio-economic resources, Preferences towards the timing of leaving the parental home, getting married and entering parenthood were shown to be directly related to parental preferences by De Valk and Liefbroer (2007), who also found strong effects of parental education and religious involvement on the preferred timing. Interestingly, whereas significant differences in timing existed between people from various migrant backgrounds, the process of intergenerational transmission did not vary. Whereas this survey-based study focused on *attitudes*, a register-based research by Steenhof and Liefbroer (2008) studied the *actual behaviour* of parents and children regarding the timing of their first child in the Netherlands. They found clear evidence for the intergenerational transmission of age at first child of mothers and daughters. This relationship was strongest at young ages and almost disappeared once the daughters were 30 years or over.

Because the intergenerational transmission of attitudes regarding marriage timing (De Valk & Liefbroer 2007), the age at union formation as well as the age at first child (Steenhof & Liefbroer 2008) has been shown, we expect that the actual timing of the first union will be transmitted from parents to children as well. As cohabitation has become more prevalent than marriage as a first union in the Netherlands (Fokkema et al. 2008), both union types need to be taken into account.

The effect of socio-economic background on the timing of first union was studied by Wiik (2009). Register data were used to measure actual timing of first marriage and cohabitation. He found an effect of parental education and economic resources on the age at first union, however weaker for cohabitation than for marriage. Experience of parental divorce was found to have different effects on marriage and cohabitation chances. The effect of parental family disruption on children's marriage timing was shown by a number of studies, with different results, depending on for example birth cohort and parental resources (e.g. Wolfinger 2003). Therefore we will also relate the children's entry into first union to parental divorce.

Hypotheses

Using a register data set, we studied the relationship between parents' and child's age at first union. This way, the direct transmission of union formation timing was studied. The indirect transmission was measured by socio-economic variables in the dataset, controlling for educational level and main source of income. We also included relevant demographic data that were shown to be of influence in previous studies, like sex, migrant background, birth cohort and experience of parental divorce.

We tested the following hypotheses:

1. There is a positive correlation between a person's age at first union and his or her parents' age at their first union
2. People who experienced parental divorce before the age of 20 postpone their first union and are less likely to enter into marriage

Data and method

For this study, data from the Dutch municipal population register (GBA) was used. This dataset contains a wide range of demographic information of each person living in the Netherlands. For each person, data on related others (parents, children) is present as well. Based on this information, Statistics Netherlands makes several datasets that can be used for this study. We use datasets specifically designed for relationship histories, optimal links between children and parents, and household composition and change. These demographic data were enriched with data on education and main source of income from the Social Statistical Database (SSD) of Statistics Netherlands.
More specifically, we used demographic data and relationship histories of 30-34 year old inhabitants of the Netherlands at 1 January 2011. For these cohorts, relationship histories including both marriages and cohabitation can be retrieved. For their parents, information on marriages only is present in the data -which is sufficient for this generation that hardly cohabited. Our start population consisted of 502,000 women and 504,000 men born between 1976 and 1980. Within this group, we selected only Dutch-born people, as for the first generation migrants the information about parents and their relationships histories appears to be poorer and selective. Further, we selected only one daughter or son per parent. Our final dataset contained 359,000 women and 372,000 men, native and second generation migrants. In 92% of the cases, the date of parents' first marriage was known.

Our dependent variable is age at first union, the main independent variable is the parents' age at first marriage. The analyses were done for women and men separately, relating a women's age at first cohabitation to her mothers' age at first marriage, and a man's to his fathers'. Other independent variables included background (native or second generation migrant), educational attainment (highest level attained) and main source of income of person and parents, and experience of parental divorce before the age of 20.

The effect of various variables on intergenerational transmission of age at first union was estimated with Cox regression models. Separate models were run for women and men, and for three groups formed on the basis of the distribution of age at first union: between 15 and 20, 21-25, 26-30, plus the total group (15-30). The focus in this version of the paper is on the total group.

Results

Mean age at first union

At age 30, 89% of the women and 78% of the men in our research population had ever lived together with a partner, either married or unmarried. The mean age at which this group entered into their first union was 23.0 for women and 24.9 for men. The mean age at first marriage of the women's mothers was 22.3, that of the men's fathers 24.5. So, on average the parents' mean age at marriage was just about half a year lower than the age at which their children entered into cohabitation.

Bivariate analyses of age at first union of women and mothers and men and fathers, show that the age at first union is higher for persons whose parents married at higher ages. This is true for women and men (figures 1 and 2) and supports our first hypothesis: There is a positive correlation between a person's age at first union and his or her parent's age at their first union.

Figure 1. Women's age at first union (% of entering union before age 31) by mother's age at first marriage

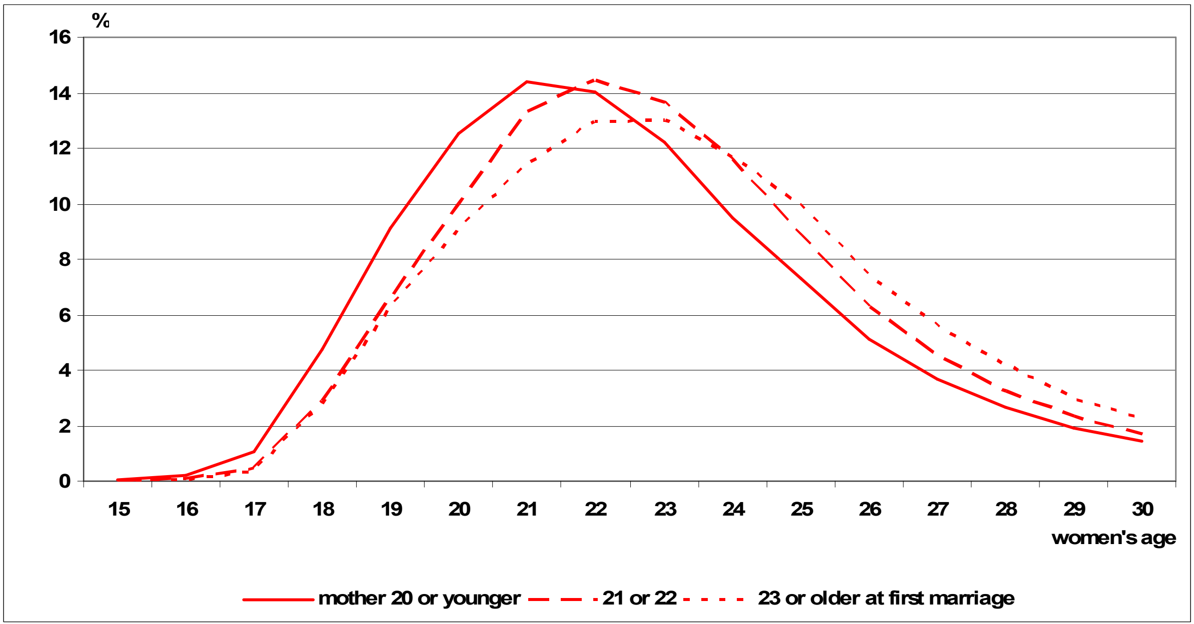
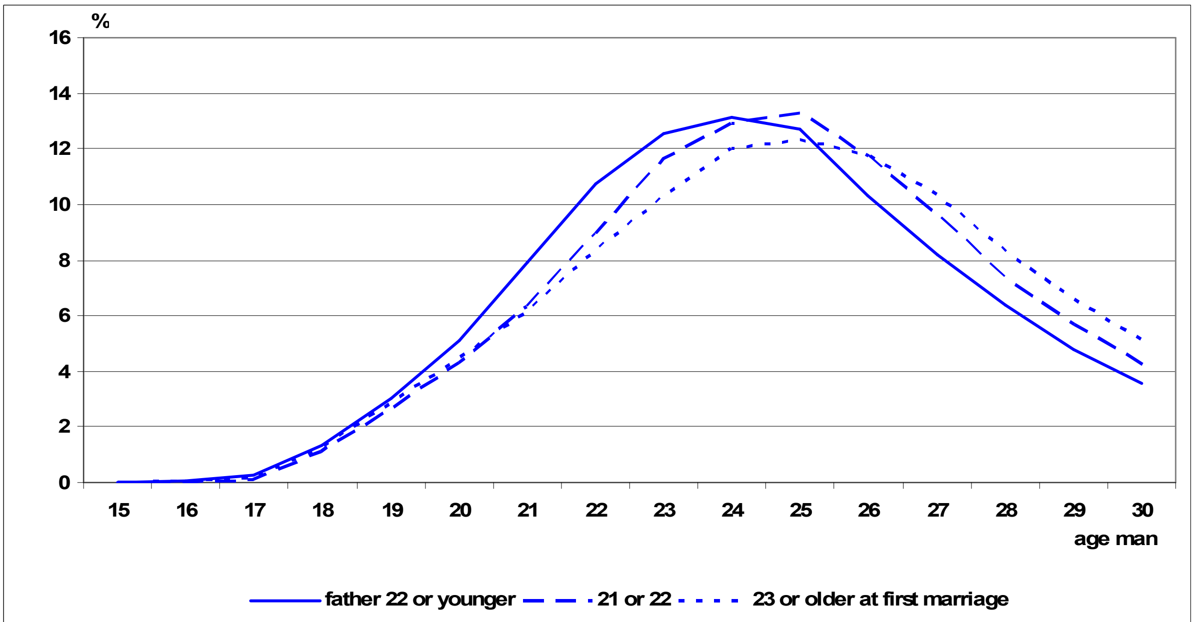


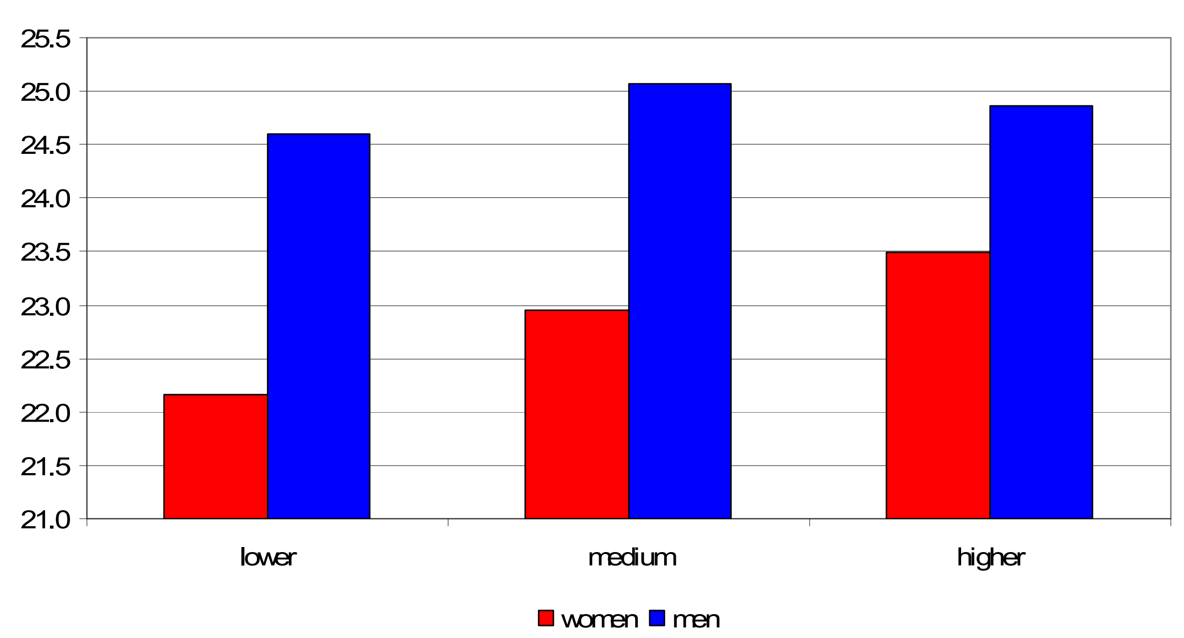
Figure 2. Men's age at first union (% of entering union before age 31) by father's age at first marriage



Education
The mean age at which women entered their first union increased with their educational level. Lower educated women on average were 22.2 years old, medium educated 23.0 and higher educated women were 23.5 years old at the start of their first cohabiting union. For men, the relation between age at first union and education is less pronounced. The lowest

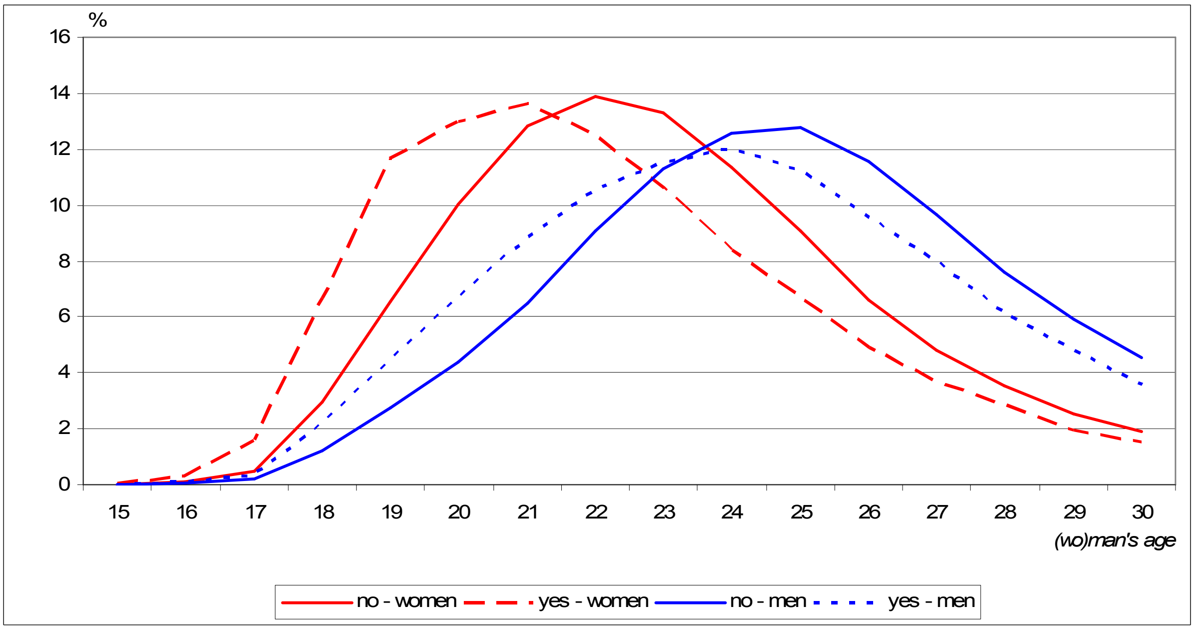
educated men start at 24.6 on average, not much earlier than medium or higher educated at 25.1 or 24.9 years (Figure 3).

Figure 3. Mean age at first union, by educational attainment



Parental divorce
We expected later entry into a cohabiting union for people who experienced parental divorce. However, the results clearly show the opposite. Women whose parents separated, started cohabitation at 22.3 years on average, nearly one year earlier than women who did not have divorced parents. For men, the mean ages were 24.3 and 25.0 (Figure 4).

Figure 4. Age at first union (% of entering union before age 31) by experience of parental divorce



Cox regression models

Model 1
In the first Cox model, we tested the effect of mother's age at first marriage for women, and similarly that of fathers and men (Table). The results show that the chance of entering into a first union is lower for each additional year of parent's age at first marriage. Men have an estimated 1.6=(1-0.984*100%) lower chance of starting their first union with each additional year of father's age at first marriage. For women and mothers, the estimated relation was found to be 2.2%, somewhat stronger than for men and fathers.

Table
Intergenerational transmission of age at first union

	men and their fathers			women and their mothers		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
age parent[1)] at first marriage	0.984 *	0.986 *	0.985 *	0.978 *	0.983 *	0.987 *
Background						
native Dutch						
2nd generation western non-natives		1.018 *	1.027 *		0.969 *	0.978 *
2nd generation non western non-natives		1.120 *	1.274 *		0.971 *	1.082 *
Socioeconomic status						
work						
social benefit		1.073 *	1.184 *		1.158 *	1.246 *
other		1.214 *	1.272 *		1.223 *	1.202 *
experienced divorce of parent[1)]		1.154 *	1.235 *		1.173 *	1.259 *
ever lived alone before enterering first union			0.581 *			0.535 *
Educational attainment						
lower educated						
medium educated		0.961 *	0.975 *		0.885 *	0.880 *
higher educated		1.002	1.108 *		0.783 *	0.872 *
Number of occurences	251184	263179	263179	296734	306943	184671
number of observations (model 2 and 3 weigthed)	264273	276446	276446	303212	313207	248599

* significant at 95% confidence level
[1)] father in case of men and mother in case of women

Model 2
A person's experience of parental divorce, education level, source of income and migrant background were included in the second model. The effect of parental age at first marriage changed only slightly for men, while it diminished for women. Having an income source other than from paid work or own business was related to a lower age at first union. The effect of education is not clear-cut. Medium and higher educated women are likely to start a union at a later age then lower educated women. For men the effect differs. Medium educated men are more likely to postpone cohabitation compared to lower educated men, whereas higher educated men are more likely to form a union at an earlier age then lower educated men.

The effect of parental divorce on age at first union appeared to be strong. For women, experiencing a divorce increased the chance of entering a union before the age of 30 by 17%, for men by 15%). The effect was most prevalent in the youngest age groups (appendix). We suspected this effect to be indirect, and mainly caused by a younger age at which children from divorced parents leave home. Therefore, we tested the models with age at leaving the parental home as dependent variable, instead of age at union formation (not shown). This did not lead to very different results and the strong effect of divorce remained present.

Model 3
To control for differences between leaving home and starting to live together, we introduced an additional variable to model 3. This indicates whether someone started a union directly at leaving the parental home, or lived alone first instead. Adding this variabel resulted in an even stronger effect of parental divorce, for both men and women. Not unexpectedly, in general living alone after leaving home leads to a higher age at first union.

The second part of the hypothesis: people experiencing parental divorce are less likely to enter into marriage was supported by the data. At age 30, half of the women and 36% of the men who did *not* experience divorce had married. These shares are significantly higher than the 40% (women) and 28% among those whose parents were divorced. The age at first marriage was not included in the Cox models, that were restricted to age at first union in general.

Conclusion and discussion

We found evidence for the intergenerational transmission of age at first union. Compared to the intergenerational transmission of age at first child found with similar datasets (Steenhof & Liefbroer 2008), the transmission of age at first union found in our study was weaker. In both studies, the transmission was strongest for younger age groups.
A higher educational level had a delaying effect on age at first union for women, and medium educated men. Higher educated men however entered into a union earlier. We also found mixed results by age group. In the younger age groups, school enrolment – which was not included – could be confounding. Wiik (2009) found different effects on age at first cohabitation or marriage by educational attainment and being enrolled in education.
The parental education could not be used in this study, and the current source of income of parents was not related to the age at first union. Main source of income of the person did have influence, but interpretation is hard. Again, in the younger age groups current enrolment could be a confounder. Also, the variable measured the situation in 2011, so it can be no more than a proxy to the income situation. Further analyses of education and socioeconomic status will be necessary for a better understanding of the effects.
The experience of parental divorce appeared to have a strong effect on age at first union, against our expectations it *lowered* the age at first union. Our hypothesis was based on the assumption that children from disrupted families are hesitant to enter into a relationship themselves and therefore postpone. However, other factors must play a role here, like escaping the more problematic one-parent family home at a relatively young age. This may also explain the very strong effects of parental divorce at younger ages, which was also shown by Wolfinger (2003). We found that children of divorced parents were less likely to get married. In further analyses we will test the age at cohabitation and marriage separately in the model.

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Appendix 1
Intergenerational transmission of age at first union, men and their fathers

	Age 15-20			Age 21-25			Age 26-30			Total aged 15-30		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
age father at first marriage	0,996 *	0,993 *	0,993 *	0,976 *	0,978 *	0,978 *	0,993 *	0,995 *	0,992 *	0,984 *	0,986 *	0,985 *
Background												
native Dutch												
2nd generation western non-natives		1,179 *	1,198 *		0,992	1,004		1,016	1,020		1,018 *	1,027 *
2nd generation non western non-natives		2,035 *	2,396 *		1,140 *	1,321 *		0,901 *	0,992		1,120 *	1,274 *
Socioeconomic status												
work												
social benefit		1,473 *	1,648 *		1,074 *	1,196 *		0,961	1,039		1,073 *	1,184 *
other		1,767 *	1,858 *		1,263 *	1,333 *		0,977	1,010		1,214 *	1,272 *
experienced divorce of father		1,720 *	1,831 *		1,207 *	1,290 *		0,963 *	1,029 *		1,154 *	1,235 *
ever lived alone before enterering first union			0,445 *			0,564 *			0,641 *			0,581 *
Educational attainment												
lower educated												
medium educated		0,671 *	0,671 *		0,932 *	0,938 *		1,090 *	1,115 *		0,961 *	0,975 *
higher educated		1,273 *	1,441 *		0,909 *	1,008 *		1,093 *	1,194 *		1,002	1,108 *
Number of occurences	22412	22508	22508	132406	137262	137262	96366	137262	137262	251184	263179	263179
number of observations (model 2 and 3 weigthed)	264273	276446	276446	241861	253938	253938	109455	253938	253938	264273	276446	276446

* significant at 95% confidence level

Appendix 2
Intergenerational transmission of age at first union, women and their mothers

	Age 15-20			Age 21-25			Age 26-30			Total aged 15-30		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
age mother at first marriage	0,962 *	0,984 *	0,989 *	0,976 *	0,979 *	0,984 *	0,996 *	0,993 *	0,994 *	0,978 *	0,983 *	0,987 *
native Dutch												
2nd generation western non-natives		1,089 *	1,117 *		0,938 *	0,960 *		0,939 *	0,911 *		0,969 *	0,978 *
2nd generation non western non-natives		1,248 *	1,474 *		0,857 *	0,972 *		0,934 *	0,961 *		0,971 *	1,082 *
work												
social benefit		1,501 *	1,618 *		1,079 *	1,162 *		0,860 *	0,908 *		1,158 *	1,246 *
other		1,454 *	1,432 *		1,167 *	1,160 *		1,051 *	1,010		1,223 *	1,202 *
experienced divorce of mother		1,657 *	1,776 *		1,059 *	1,146 *		0,973 *	1,020		1,173 *	1,259 *
ever lived alone before enterering first union			0,468 *			0,533 *			0,622 *			0,535 *
lower educated												
medium educated		0,620 *	0,611 *		1,020 *	1,010		1,049 *	1,066 *		0,885 *	0,880 *
higher educated		0,565 *	0,641 *		0,849 *	0,946 *		1,073 *	1,163 *		0,783 *	0,872 *
Number of occurences	65062	64608	64608	176234	184671	184671	55438	57664	184671	296734	306943	184671
number of observations (model 2 and 3 weigthed)	303212	313207	313207	238150	248599	248599	61916	63928	248599	303212	313207	248599

* significant at 95% confidence level