

Parental criminality and children's family-life trajectories: Findings for a mid-20th century cohort

Doreen Huschek

University of Stockholm, Sweden

The Netherlands Institute for the Study of Crime and Law Enforcement

DoreenHuschek@criminology.su.se

Catrien Bijleveld

VU University Amsterdam, Netherlands

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Abstract

The paper analyses the family life courses of sons and daughters from families with low socioeconomic status and at high risk to offend. For this Dutch cohort (N=522), born on average in 1932, register and archive data on offending and family-life events from age 18 to 50 years are investigated. We discuss different mechanisms of how parental criminality may affect demographic behaviours, such as marriage and parenthood. As these demographic behaviours are interlinked, and as their ordering is meaningful, we apply a holistic approach by using sequence and cluster analysis to construct family-life courses. Findings indicate four family-life trajectories that are almost similar for the sons and daughters, although criminal fathers appear to affect sons' and daughters' trajectories differently. Daughters' family-life trajectories seem directly affected by father's offending whereas sons' trajectories are only affected by their own juvenile offending.

Keywords

Intergenerational transmission, demographic behavior, life course, sequence analysis, incarcerated parents

Introduction

It is well known that the behaviour of children is linked to that of their parents. This intergenerational behavioural continuity also relates to deviant behaviours or non-normative relationships. For example, children of criminal parents are more likely to become criminals themselves (Farrington, Coid, & Murray, 2009; Thornberry, 2005) and parental divorce increases children's own risk of divorce (Dronkers & Härkönen, 2008). Apart from these associations within domains, there are also associations across behavioural domains, such as the link between offending and family transitions. For instance, parental divorce (Burt, Barnes, McGue, & Iacono, 2008; Fergusson, Horwood, & Lynskey, 1992) and early parenthood (Pogarsky, Lizotte, & Thornberry, 2003) both increase the likelihood of offspring

offending. Similarly, parental incarceration has been linked to a wide array of adverse outcomes for children such as anti-social behavior, internalizing behaviours, poor wellbeing and educational outcomes (Comfort, 2007; Foster & Hagan, 2007; Murray & Farrington, 2008) but also off-time demographic transitions (Osgood, Foster, Flanagan, & Ruth, 2005) such as early marriage or parenthood or children out of wedlock. Due to the sharp increase of prisoners in the United States in the past few decades, although less in Europe, there is a growing interest in studying the possible collateral effects of parental prison terms on prisoners' families and children.

In this paper, we investigate the long-term outcomes of parental criminality and associated family risk factors on children's demographic life courses. We aim to add to existing research in

several ways. First, most studies that investigate offending and demographic transitions have taken offending as the outcome variable, with demographic and other transitions as predictors. Few studies have looked at data from the other direction: how (parental) offending may influence demographic transitions.

Second, this paper takes a life-course approach. Studies have shown that vulnerable populations such as children of incarcerated parents are more likely to experience off-time transitions, for example early parenthood and early marriage, and are at a higher risk of divorce (Elder, 1994; Osgood, Foster, Flanagan, & Ruth, 2005; Settersten, 2003). However, most studies have focused on examining a single life-course transition. This makes it difficult to know whether the different off-time demographic transitions cluster within a small group of vulnerable individuals who experience all the off-time transitions while the majority of vulnerable individuals experience standard life courses, or whether the likelihood of different off-time transitions is equally distributed among vulnerable groups with, for example, some individuals experiencing early parenthood and others experiencing early marriage. Furthermore, the study of isolated life-course transitions may lead to seemingly inconsistent findings, for instance, out-of-wedlock parenthood is differently associated with offending than parenthood within marriage (Zoutewelle-Terovan, Van der Geest, Liefbroer, & Bijleveld, 2014). Moreover, such single-event analyses disregard the ordering of demographic transitions. This study will combine various demographic behaviours such as marriage, divorce and parenthood into sequences or, in other words, family life courses, thereby studying not only the occurrence but also the ordering, co-occurrence and timing of demographic behaviours. With this approach, we can much better understand how family life courses and parental offending are intertwined.

Third, previous studies have investigated predominantly men so that much less is known about gendered effects. There is reason to expect these as some demographic transitions are much more age-constrained for women than for men, such as the transition to parenthood. Also, there is evidence that sons and daughters are differently affected by paternal offending: sons appear at increased risk to offend if their father offended

(Farrington et al., 2009; Van de Rakt, Nieuwbeerta, & De Graaf, 2008) but daughters seem to be at increased risk of leaving home early in case of the replacement of an incarcerated father by an abusive non-biological father (Foster & Hagan, 2007).

In this paper, we investigate the impact of family risk factors, such as juvenile offending, parental demographic behaviour and criminality, on children's family-life courses from age 18-50 by using register and archival data on a sample of sons and daughters born on average in 1932 in the Netherlands. They were born into families with low socioeconomic status and at high-risk to offend. This sample matured into adulthood in a period where life courses became increasingly standardized with large regularity in the timing and occurrence of family-life transitions as well as low levels of crime. As our sample originates from marginalised and poor segments of the society, we may expect a relatively large number of non-standard or off-time life courses (McLanahan, 2004; McLeod & Kessler, 1990; Settersten, 2003). Given their high risk of offending, any associations between offending and life course trajectories are bound to be easily detectable.

Our analyses will firstly depict family-formation patterns in our sample in comparison to the general Dutch population. Next, we will describe the most common sequences of family life courses of our sample. Finally, we will investigate to what extent family-risk factors are associated with the previously described family life courses.

The sequencing of demographic transitions in the life course

The life course is connected to age and sequencing norms and internalised orders of events (Elder, 1994; Settersten, 2003). Most men and women follow relatively standard sequences of demographic transitions. A standard sequence nowadays in many Western societies is cohabitation, marriage, followed by parenthood. What is a "standard" life course depends, however, on cultural norms as well as on the era in which transitions take place. A nonstandard life course can consist of transitions occurring early (for instance, early parenthood), late, or not at all (for instance, remaining single). Nonstandard life courses may include repeated events such as marrying several times or negative events such as divorce. They can also consist of a nonstandard order of transitions.

For example, a person may have a child outside marriage or before marriage, nowadays a common sequence, but considered deviant in a large part of the previous century.

Individuals who go through demographic transitions too early or too fast according to prevailing norms may be subjected to informal normative control and sanctions (Neugarten & Hagestad, 1976). The resulting consequences of non-standard transitions are for example a higher likelihood of depression, lower self-esteem, a higher chance of divorce, lower well-being, and lower achievement in education and work. Such non-standard transitions therefore may also affect children's outcomes in various domains (e.g., Gilman, Kawachi, Fitzmaurice, & Buka, 2003; Koropeczyi-Cox, Pienta, & Brown, 2007; Pogarsky, Thornberry, & Lizotte, 2006; Sigle-Rushton, 2005).

Parental criminality and children's demographic behaviors

There is evidence that vulnerable groups, such as youth from low socioeconomic backgrounds or from single, divorced, criminal or imprisoned parents, are less likely to follow standard life courses (Elder, 1994; Settersten, 2003) and experience earlier transitions to parenthood and marriage (Osgood, Foster, Flanagan, & Ruth, 2005).

How such a high-risk background is associated with embarking on nonstandard life courses has hardly been addressed. A number of causal mechanisms can be envisaged through which children of criminal parents would be at increased risk to follow nonstandard life courses, that is, to experience transitions to parenthood or marriage either early, not at all, late, or in nonstandard order, and if married to be at increased risk of divorce.

In a first mechanism, children may be *socialised* to not internalise or even reject conventional norms by experiencing and observing their parents breaking them. Parents serve as role models and transmit their preferences, attitudes and behaviours to their children by rewarding or punishing certain behaviors. If a parent is criminal, events such as divorce or out-of-wedlock childbirth may be judged less as a break of norms by their children, as children may transpose 'being deviant' to other domains. Thus, children may divorce or have children outside marriage even if their criminal parents did not divorce or have children out of marriage themselves.

Secondly, *stigma* is pivotal. For children of arrested, convicted, or incarcerated parents, such stigma has been extensively reported (e.g., Foster & Hagan, 2007; Phillips & Gates, 2011; Murray & Farrington, 2008). Other individuals can attribute the negative characteristics of incarcerated parents to their children. Out of fear for such stigmatisation, fear of harassment, and bullying, these children may hide the fact that their parent is in prison (Hissel, Bijleveld, & Kruttschnitt, 2011; Nesmith & Ruhland, 2008). Phillips and Gates (2011) reported how children may also internalise such societal reactions or beliefs about their parents and themselves. In this case the stigma may fuel a self-fulfilling prophecy, concurring with labeling explanations. Stigma and associated experiences such as social isolation are likely more severe in times and contexts where offending is of low prevalence and consequently is a rare type of societal norm breaking - like the context studied in this paper. Such stigma may extend into adulthood and reduce marriage chances: ethnographic research (Anderson, 1999; Edin, 2000) has shown that women from poorer segments of society heavily weigh the bread-earning capacity of prospective spouses.

In addition, the *interaction with the criminal justice system*, which relatives and children of offenders experience, can lead to negative outcomes. Witnessing arrest is known to cause trauma in children (Comfort, 2007) or can be experienced as highly emotional and disturbing (Braman, 2004; Hissel et al., 2011). These experiences and the parent-child separation may affect parental attachment and trust, with subsequent effects for later relationship formation, for instance a higher likelihood of divorce.

In all these mechanisms, it is the parental criminality itself that *directly* generates nonstandard life-course outcomes.

From the literature, it is possible to derive a number of *indirect* paths through which parental criminality predisposes children to experience nonstandard demographic life courses. It has been well-established that parental criminality increases the risk for offspring delinquency (e.g., Farrington et al., 2009; Thornberry, 2005). Offspring offending could subsequently affect these children's life course outcomes, for similar reasons as for parental criminality in the "stigma" explanation above. As Svarer (2011) showed, convicted men are regarded

by women, particularly women from better-off families, as a less good "investment", because the men's earning potential is considered lowered by their criminal records. The association between parental criminality and children's demographic outcomes is channeled here through offspring criminality.

A last *indirect* mechanism could be parental offending affecting parental life-course outcomes, which in turn are then transmitted to the children: the literature has provided ample evidence of such intergenerational transmission of demographic outcomes (e.g., Amato, 2000; Dronkers & Härkönen, 2008). The association between parental criminality and children's demographic outcomes is here channeled through parental demographic behavior.

Thus, in the first mechanisms (socialisation into deviant behaviours, stigma and contact with criminal justice system), parental criminality is directly affecting children's life-course outcomes. In the last two mechanisms, there is no "cross-over" between criminality of the parents and children's demographic outcome. Rather it is criminality or demographic behaviours that are transmitted across generations and that are generating an association between criminality and children's demographic outcomes.

Gender-specific intergenerational transmission

The life course of sons and daughters is likely to be differently affected by father's criminality. There are general behavioural difference between men and women, for example they differ in the timing of their life course, particularly concerning family roles: marriage and parenthood. Men and women also have a different sequencing and combination of these roles (Elder, 1998; Oesterle, Hawkins, Hill, & Bailey, 2010). Women are also much less likely to offend than men (Block, Blokland, Van der Werff, Van Os, & Nieuwbeerta, 2010).

Intergenerational transmission of fertility generally suggests a stronger transmission from mothers to children and from mothers to daughters in particular (Murphy, 1999), however many studies only include mothers and their daughters (Furstenberg, Levine, & Brooks-Gunn, 1990; Horwitz, Klerman, Kuo, & Jekel, 1991; Murphy & Knudsen, 2002). It is further indicated that daughters are more susceptible to home and family

influences than sons due to gender-specific socialisation processes (Murphy & Knudsen, 2002).

Due to data restrictions and the low prevalence of offending among women, research on intergenerational transmission of offending focuses more often on sons than on daughters and there are only few studies that include both genders. Farrington et al. (2009) found significant intergenerational transmission of offending from fathers to sons, but much less strong transmission from mother to sons or fathers to daughters, although, in a Dutch study, Van de Rakt et al. (2008) found intergenerational transmission of criminal careers of the father to both sons and daughters. Foster and Hagan (2007) indicated furthermore that daughters but not sons are at increased risk of leaving home early due to the replacement of an incarcerated father by an abusive non-biological father.

Historical background: Life course and crime levels in the Netherlands

The 20th century was marked by many changes in the life course of young adults in Europe and North America. During the first half of the century, markers of the transition to adulthood such as leaving home, marriage, and parenthood tended to occur earlier and followed increasingly standard trajectories. This trend had started already in the later second half of the 19th century in Europe (Bras, Liefbroer, & Elzinga, 2010). Standardised life courses were most pronounced among individuals marrying in the 1950s and first half of the 1960s. Economic growth after World War II allowed earlier and more plannable life choices in work and family spheres (Fussell & Furstenberg, 2005). Among Dutch individuals born between 1921 and 1940, few remained childless or unmarried. Unmarried cohabitation was below 5% and marriages were generally long and stable (Liefbroer & Dykstra, 2000; see also table 2).

Thus, the sample studied here, who were on average starting on the path to adulthood a few years after the Nazi occupation (1940-1945) of the Netherlands, belong to birth cohorts with the most standardised life courses in the 20th century. By contrast, for cohorts born in the second half of the 20th century family formation patterns became increasingly de-standardised (Elzinga & Liefbroer, 2007).

In this period, crime levels in the Netherlands were moving towards an all-time low for the 20th

century. From the 1950s to the early 1970s, the number of prisoners per capita was at an historic low (Tonry & Bijleveld, 2007), even though the number of police registered offences started rising from the 1960s onwards. This means that the sample under study entered adulthood in a period when deviation from the norm, either in terms of demographic behaviour or criminal behaviour, was a rare event.

Method

Sample

We analyse data from the *TransFive* study (Bijleveld & Wijkman, 2009) that has register information on family formation and offending for five generations of men and women born within 198 families in the Netherlands. The starting point of the study were 198 men who had been placed in a reform school between 1911 and 1914 either because of concerns about their character and behaviour (including some petty delinquency) or because their parents had been unable to take proper care of them according to guardian organisations. Previous studies showed that the sample was from a poorly educated, disadvantaged background (Bijleveld, Wijkman, & Stuifbergen, 2007; Ramakers, Bijleveld, & Ruiter, 2011).

All descendants of these men were traced in Dutch genealogical and municipal records, entailing a 100% retrieval rate. The main data collection took place between 2004 and 2007 and register data were updated in 2012. 141 of the 198 original men fathered a total of 621 children who constitute our sample of interest. Being born on average in 1932, these sons and daughters are now mainly between the ages 60 to 85 years old. However, as we are interested in their family life course, we limit our focus on the age range 18 to 50 years. Age 50 is a common cutoff point for family life studies as basically all relationship formations and dissolution as well as childbirths have occurred by this age. We excluded those who died before their 19th birthday (8% of the sample) and those who migrated between the age of 0 and 50 years (7% of the sample), leaving 522 sample members: 259 sons and 263 daughters, nested within 141 families.

Family-life trajectories

Individual family-life trajectories were constructed from register data (see Bijleveld & Wijkman, 2009 for information on the data retrieval procedure). For each sample member, archival

records on the date of birth, date of marriage(s), date of divorce(s), date of migration and date of death, as well as date of birth and death of any children are available. These variables were used to construct the life-course sequences explained in detail in the analytical strategy section. From the literature we would expect that our sample is likely to experience early transitions to marriage and parenthood as well as divorce or non-transitions. Furthermore, they are likely to experience a non-standard order of family-life transitions. We therefore chose to take into account the nuptial states: single, married, widowed, divorced and remarried. In the fertility domain we decided to not control for the number of children but rather whether our sample members ever became parents and whether their children were born outside marriage, conceived before marriage or after marriage. We include whether our sample members had conceived a child before marriage, as in the Dutch population during our sample's youth, children conceived both before or outside marriage were a rare event that generally signaled deviance.

Analytical strategy

The analysis contains three steps. The first step consists of visualizing and describing the family-life courses between the age years 18 to 50 separately for sons and daughters using sequence analysis. This approach looks at the life course in its entirety and allows for the study of the timing, duration, and order in which transitions take place as well as the building of typologies. For that, we first define our states of interest. We distinguish 11 different states: ten combined states in the fertility and union formation domains as well as the state 'death'.

In the union formation domain, the possible states are: single, married, divorced, widowed, and remarried. Third and higher order marriages are combined into one remarriage category. In the fertility domain, states indicate whether or not an individual had at least one child. Children are further distinguished by whether or not a child born in a specific age year was born out-of-wedlock, within the first seven months of a marriage or born within eight+ months of marriage. Combined these domains result in ten different states: (S) single, (M) married without children, (Cw) having a child out of wedlock, (MC) married with children, (MC7) married with a child born within seven months of marriage or married within a year of having a child

out of wedlock, (D(C)) divorced (with or without child), (DCw) having a child out of wedlock while divorced, (W(C)) widowed (with or without children), (M2+(C)) remarried (with or without children), (M2+C7) remarried with seven-month child. As additional final state (11), a person can have died (DT).

Respondents can experience any number of these 11 states. They can also move back and forth between some states, for example they can marry, divorce, remarry, and divorce again. The lowest number of states a respondent can be in is one: this is an individual who stays unmarried and has no children during the entire 33 years of observation (age range 18-50).

Each respondent follows an individual sequence of states. As n individual sequences cannot be meaningfully interpreted, a (dis-)similarity matrix is calculated that compares how individual sequences resemble each other. The most commonly used method is optimal matching (OM) that calculates distances between sequences based on the costs of insertions, deletions, and substitutions needed to turn one sequence into another (Abbott, 1995). Early applications of OM have been criticised in social science literature (Aisenbrey & Fasang, 2010; Barban & Billari, 2012) as for instance the process of insertions, deletions and substitutions lacked a linkage with theory and the transformation costs were arbitrary, the validation of distinct groups of similar sequences was weak, unequal sequence length due to missing or incomplete data contributed to distance measurement, and the timing and order in sequences was not accounted for. In response to these critiques, new technological implementations of OM and alternative measures have been developed and have increasingly been used in the social science (see Aisenbrey & Fasang (2010) for an overview). We use an alternative method proposed by Elzinga (2007) which is based on the longest common subsequence (LCS) to calculate the distance matrix¹. This method estimates the similarity of pairs of sequences by finding the longest common subsequence for each pair of sequences and taking the length of the sequences into account when transforming the similarity into a dissimilarity (for the calculation see Elzinga, 2007). A common subsequence is a sequence that contains similar states in the same order in a pair of sequences. Thereby, states can be deleted to derive a common

subsequence. For example, the following sequences a and b share two common subsequences:

a: S – M – MC – D

b: S – M – D

The sequence pair shares the subsequence S-M, but also the longer subsequence S-M-D that represents the longest common subsequence of the pair and this subsequence would be used to calculate the dis(similarity) measure.

The advantage of this approach is that it is not required to attribute costs for the different states, that it takes into account the order of events occurring and that it is intuitive: The bigger the longest common subsequence of a pair of sequences (corrected for the length of the pair of sequences), the more similar this pair is (Barban & Billari, 2012). In a way, LCS disregards small dissimilarities and emphasizes the most common order and timing of states. For our context, where we want to explore which are the most common life trajectories in the fertility and marriage domains - with a special emphasis on when a child was born around the marriage as it could signify "deviance" or "off-time" in the demographic sense that can have repercussions for other life domains - this method is therefore appropriate.

In the second part of the analysis, we use the (dis-)similarity matrix to combine sequences into groups of family-life trajectories or clusters with the hierarchical clustering method 'Ward' (for further information on cluster analysis see for example Kaufman & Rousseeuw, 2005). Sequences are thus fused into successively larger clusters by calculating the total sum of squared deviations from the mean of a cluster. In the case of sequence analysis, the squared deviation is expressed in terms of pairwise distances and is obtained by using an analogy of the general formula (Studer et al., 2011). Generally, each clustering step aims to minimize the increase in the error sums of squares. As we are interested in gender differences, we ran analyses separately for men and women. A four-cluster solution for both men and women appeared to be the optimal number of clusters according to the visual analysis of the dendrograms which give a graphical representation of the data's hierarchical clustering structure. These clusters are then described by state frequency plots that give the percentage of the different states per year over the observed period. For the analysis, the TraMineR package

(version 1.8) of the statistical software R was used (Gabadinho, Ritschard, Müller, & Studer, 2011).

In the third step of the analysis, we test whether early risk factors such as familial criminality are linked with a particular family-life cluster. The general effects are likely to be small as these clusters comprise different demographic behaviors, i.e. childbearing and union formation, and clusters may be heterogeneous, i.e. combining different types of family-life trajectories. We therefore also include significant effects at the $p < 0.1$ level. We run a multinomial logistic regression and control for clustering at the family level, because our individuals are nested within 141 families and our outcome variable, family-life cluster, is categorical.

Family risk factors

Table 1 gives an overview of the family factors that may influence the family-life cluster that we analyse in the third step of the analysis. We take into account both demographic and offending variables in our multivariate analysis. Three bivariate variables capture the demographic

behavior of the parents: (a) *parents divorced*, (b) *mother had a child out of wedlock* and (c) *mother had a child within seven months of marriage* (meaning that she became pregnant outside of marriage). Parental divorce was coded as '1' when the parents divorced before a respondent turned 18 years, and otherwise '0'. Similar demographic indicators were constructed for the offspring in the sequence analysis. Furthermore, we constructed the categorical variable *birth cohort*. Generally, the distribution of births followed a slightly left-skewed bell shape with most births concentrated around the average year of birth 1932. The majority of the sons and daughters were born between 1921 and 1940². Due to this uneven distribution, we chose not to employ five-year or decennial cutoff points (used by Statistics Netherlands or also in the study by Liefbroer & Dijkstra 2000) to capture period effects, but rather chose to include the following largely even sized four birth cohorts: ≤ 1925 , 1926-1930, 1931-1940, ≥ 1941 .

Table 1: Overview of family factors

	Sons (n=259)			Daughters (n=263)		
	M	SD	Range	M	SD	Range
Father never convicted	0.54	0.50	0 – 1	0.61	0.49	0 – 1
Father convicted, no prison	0.12	0.33	0 – 1	0.11	0.31	0 – 1
Father served prison term	0.34	0.48	0 – 1	0.28	0.45	0 – 1
Parents divorced	0.14	0.35	0 – 1	0.20	0.40	0 – 1
Mother had a child out of wedlock	0.09	0.29	0 – 1	0.11	0.31	0 – 1
Mother had a child within seven months of marriage	0.40	0.49	0 – 1	0.32	0.47	0 – 1
Birth year ≤ 1925	0.19	0.39	0 – 1	0.23	0.42	0 – 1
Birth year 1926-1930	0.27	0.45	0 – 1	0.26	0.44	0 – 1
Birth year 1931-1940	0.37	0.48	0 – 1	0.35	0.48	0 – 1
Birth year ≥ 1941	0.17	0.38	0 – 1	0.16	0.37	0 – 1
(Serious) Juvenile delinquency	0.15	0.33	0 – 1	0.03	0.17	0 – 1

Criminal offending variables were retrieved from archives and judicial records. Only eight of the mothers were convicted for any offence and because of this low number we did not include their offending in the analysis. For our multivariate analysis, we constructed the following categorical variable: (a) *father never convicted*, (b) *father*

convicted, no prison, and (c) *father served a prison term*, as imprisonment is more 'visible' to outsiders than a conviction and likely carried greater stigma. We also take into account sons' and daughters' own *juvenile delinquency* (age 12-17). For daughters, we include all juvenile offences as prevalence is very low, and for sons, we include only serious juvenile

offences. This is done as minor juvenile offences are not uncommon for male adolescents, thus only the more severe will likely signal deviance. Given that we study offending through criminal justice contacts and not self-reported delinquency, our offending measures constitute the lower limit of actual criminal behaviour.

Results

Setting the context: Family-life transitions in comparison to the general Dutch population born between 1921 and 1940

A first inspection of the data shows that our sample of low socio-economic status differed as expected from the average Dutch population in their family formation patterns (table 2). The age of marriage and parenthood was lower than in the general Dutch population for both men and women. As they were on average more poorly

educated, this could be expected, but the differences are quite large: two to three years for men and three to four years for women. For both men and women, marriage and parenthood were, as in the general Dutch population, closely linked. For 50% of the Dutch population, a first child was born within 17 months of marriage. Our sample had a much higher percentage of weddings where the woman was already pregnant when she married. This suggests that risk-taking behaviour such as early sexual activity was more common in our sample and that in the case of a pregnancy, it was absolved by getting married. In both the general Dutch population and in our sample, a birth outside marriage was a rare event. In the Netherlands until the mid-1980s fewer than 5% of the children were born outside marriage (Statistics Netherlands 2013).

Table 2: Comparison of family-life indicators between the high-risk sample and general Dutch birth cohorts born between 1921 and 1940 (in percent)

	Men			Women		
	Offspring sample	birth cohort		Offspring sample	birth cohort	
		1921-30	1931-40		1921-30	1931-40
Age when 50% experienced first marriage	24.5	27.6	26.4	21.8	25.0	24.3
Age when 50% experienced birth first child	25.7	29.1	28.3	23.3	27.0	25.9
Not married by age 35	20	15	12	9	10	10
Childless by age 40	27	17	16	17	16	11
Average number of children	2.8	2.7	2.5	2.9	2.9	2.7
Ended first marriages after 20ys (widowhood and divorce)	24	8	10	24	12	12
Ended first marriages after 20ys (divorce only)	20	-	-	16	-	-
No differentiation by gender:						
Time between marriage & childbirth for 25% of cohort				4 months	10 months	10 months
Time between marriage & childbirth for 50% of cohort				11 months	17 months	16 months

Sources: *TransFive* and *Liefbroer and Dykstra 2000*

Men more often remained unmarried (20%) or childless (27%) compared to the general male Dutch population of similar birth cohorts. By contrast, the high-risk daughters did not differ from similar birth cohorts in the general Dutch population: 9%

remained unmarried and 17% childless. Thus, the high-risk sons were more often excluded from certain transitions than the daughters. Also, in our sample, the divorce rates for men were more than twice as high as among the general population, for

women they were twice as high. Both men and women had approximately 2.8 children, similar to the average Dutch population.

Description of the family life courses

We constructed family life courses with the help of sequence analysis to describe not only whether demographic events occurred but also in which order and timing these events occurred in the lives of our sample members. In order to describe whether some demographic behaviour concentrated in some part of the sample, the different individual life course sequences were grouped into clusters. In the following section, we summarise the most common points of these clusters in terms of timing or demographic transitions occurring. Figures 1 and 2 give a graphical presentation of the clusters by showing the percentage of each of the possible 11 behavioural states by age year.

The four clusters for men and women are fairly similar in their grouping of life courses. Although they are not identical, the ordering of events is comparable for men and women and the labels are therefore similar as well. The clusters were named *standard*, *early wedding while (partner) pregnant*,

break-up/childless marriage and *single* for men as well as *standard*, *early wedding while pregnant*, *break-up* and *single/late childless marriage* for women.

Almost half, i.e. 46% of the men and 48% of the women followed a fairly standard family-life trajectory. They married, had one or more children born at least eight months after their wedding and stayed married for a substantial part of their life. Among the sons who fall into the standard cluster, 66% were married and more than half of them already had children by age 25. In the daughters' standard cluster, 85% were married and two thirds of them had their first child by age 25. Divorce occurred only for a few in these standard family-life clusters. Marriage was thus characterised by "till death do us part". These two clusters resemble the highly standardised life courses that prevailed until 1965. Thus it is not surprising that almost half of our sample belong to these clusters. Although these transitions were in the "standard" order, the transitions into marriage and parenthood did, as stated, occur earlier than among the general Dutch population.

Figure 1: State frequency plots by cluster showing the percentage of all 11 states for ages 18 to 50 years for sons

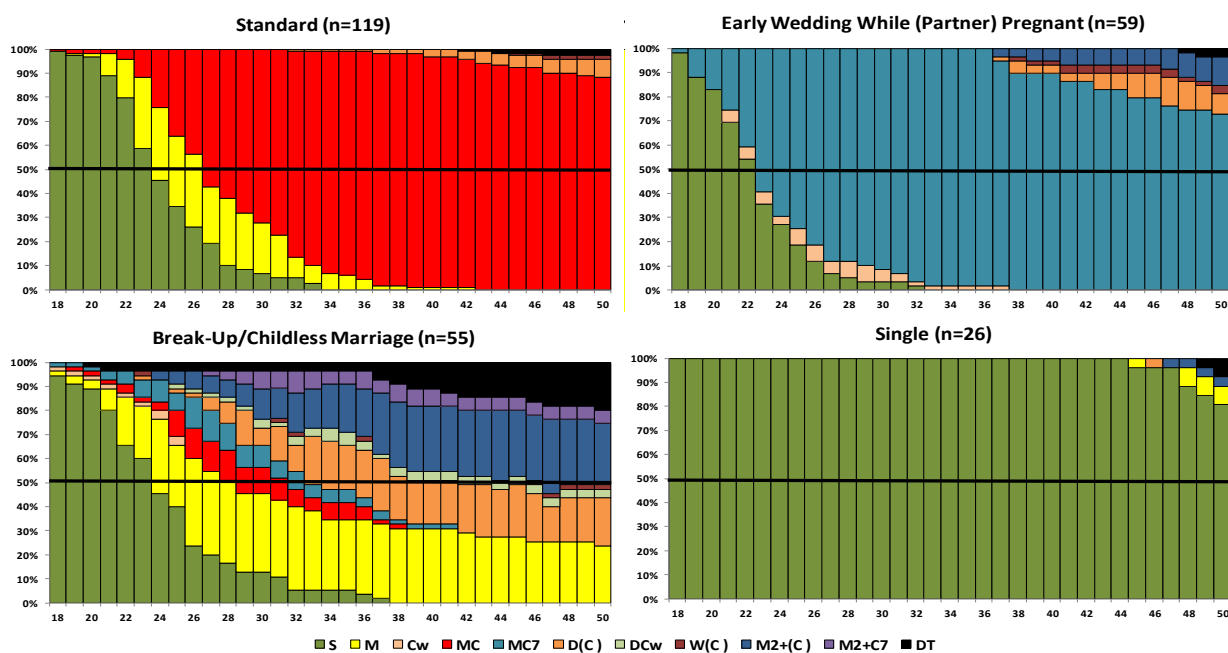
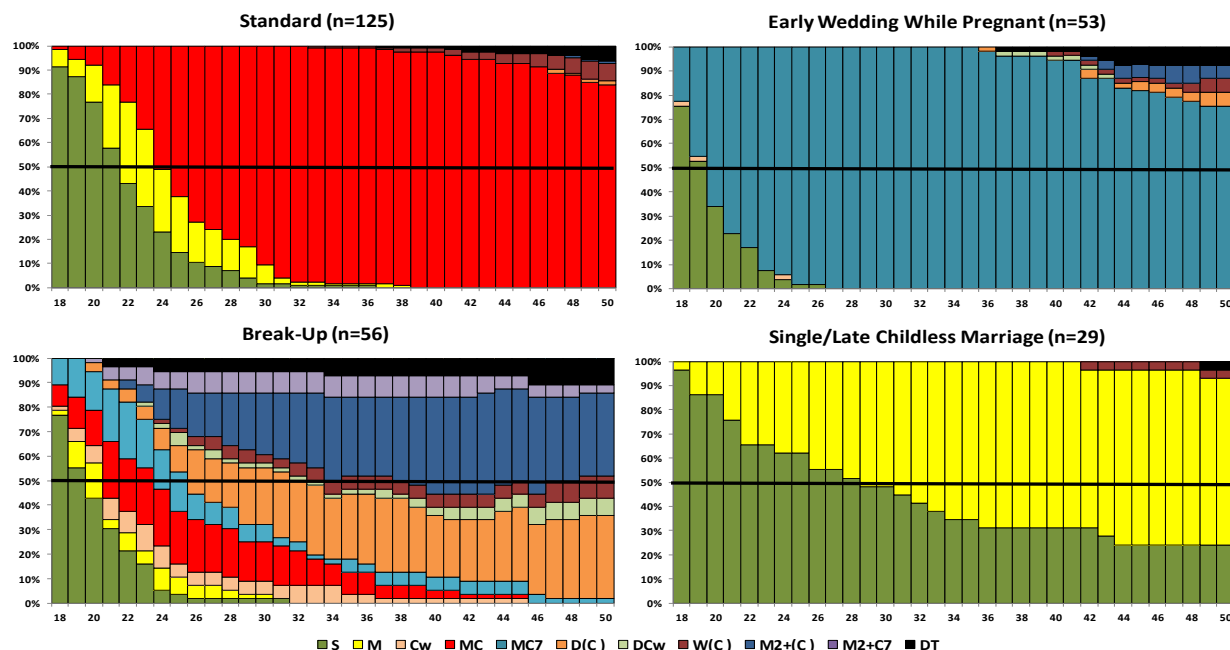


Figure 2: State frequency plots by cluster showing the percentage of all 11 states for ages 18 to 50 years for daughters



Legend: (S) single, (M) married without children, (Cw) having a child out of wedlock, (MC) married with children, (MC7) married with a child born within seven months of marriage, (D(C)) divorced (with or without child), (DCw) having a child out of wedlock while divorced, (W(C)) widowed (with or without children), (M2+(C)) remarried (with or without children), (M2+C7) remarried with seven-month child, (DT) died

Slightly more than half of the men and women in our high-risk group followed nonstandard family-formation patterns. Firstly, 23% of men and 20% of women fall into what we labeled the 'early wedding while (partner) pregnant' and 'early wedding while pregnant' clusters. By age 25, 75% of these men were married with a seven-month child and 7% had acknowledged a child born out of wedlock. Women married especially young in this cluster. By age 25, 96% of the women were married with a seven-month child. Starting in their late 30s and early 40s, the marriages in these two clusters began to break up due to divorce, widowhood and death (30% men, 25% women). Some men and women remarried. Those few who had a child out of wedlock married quickly afterwards and then remained in a stable relationship. Dutch cohorts born between 1921 and 1940 also had a substantial share of individuals with a short duration between marriage and childbirth, but this behavior was much more prevalent among our sample.

Among the men, 21% were grouped into the 'break-up/childless marriage' cluster and among the women, 21% into the 'break-up' cluster. Individuals in these clusters generally experienced a break-up of a first relationship. For men, the most common states were divorce, remarriage, out-of-wedlock parenthood, widowhood and early death but also childless marriage. By age 25, 40% of the men were still single, 25% were married without child; the remainder was comprised of all kinds of other states. By age 50, the most common categories were married without children (22%), divorced (24%), remarried (31%), and 20% had died. For women, the break-up trajectory is equally heterogeneous. By age 25, the most common states were remarried (23%), married with child (21%), married with seven-month child (16%), divorced (11%) and child out of wedlock (12%, not married or after a divorce). By age 50, all women were either divorced, remarried, widowed or had died. The common denominator of the individuals in this

cluster is the absence of the long stable marriage periods observed for the two previous clusters.

The final family-life clusters differed slightly for men and women. For men, the final cluster was comprised of the 10% of the sample that remained single. The cluster also included a few late marriages (age 40 years and older). Women in the final cluster also either remained single or they married late and had no children, but among the 11% of women who followed this trajectory more married: by age 25, 62% of the women were single compared to 100% of the men. By age 50, 24% were single compared to 81% of the men.

The influence of family risk factors on the type of family-life trajectory

As a next step, the influence of various family risk factors on belonging to a specific family-life cluster is examined. Table 3 and 4 give the results of the multinomial logistic regression analysis. We compare belonging to the standard family-life cluster versus being assigned to the wedding while (partner) pregnant, break-up/late childless marriage, single cluster for men and early wedding while pregnant, break-up, and single/late childless marriage cluster for women.

Table 3: Results of the multinomial logistic regression of family-life cluster for sons

	-- cluster 'standard' is reference outcome --					
	Wedding while (partner) pregnant		Break-up/childless marriage		Single	
	B	SE	B	SE	B	SE
Convicted father, never prison	-0.15	0.52	0.05	0.71	0.90	0.71
Convicted father, prison term	0.02	0.40	0.05	0.42	0.48	0.45
Serious juvenile delinquency	1.06*	0.47	0.92#	0.50	1.20*	0.53
Parents ever divorced	0.97#	0.53	1.50**	0.52	0.76	0.76
Mother had a child out of wedlock	0.89	0.60	-0.18	0.53	0.61	0.78
Mother had a child born within 7 months of marriage	0.34	0.37	0.78*	0.39	0.40	0.46
Birth year <1925	Ref.		Ref.		Ref.	
Birth year 1926-1930	0.59	0.47	0.11	0.54	-1.64	1.16
Birth year 1931-1940	0.16	0.48	0.34	0.49	0.72	0.68
Birth year >1941	0.41	0.56	0.29	0.55	1.11	0.77
Constant	-1.49***	0.45	-1.65***	0.47	-2.68***	0.74
Number of persons	259					
x ² (def)	62.97(27)					
adjusted for 116 family clusters						

**p<0.01, * p<0.05, # p<0.1

Table 4: Results of the multinomial logistic regression of family-life cluster for daughters

	-- cluster 'standard' is reference outcome --					
	Early wedding while pregnant		Break-up		Single/ late childless marriage	
	B	SE	B	SE	B	SE
Convicted father, never prison	-0.62	0.85	1.54**	0.56	2.19**	0.82
Convicted father, prison term	0.16	0.41	0.32	0.51	0.37	0.64
Serious juvenile delinquency	0.71	0.96	0.28	0.84	0.41	1.37
Parents ever divorced	1.29*	0.53	1.42**	0.53	0.36	0.68
Mother had a child out of wedlock	-2.11#	1.14	-0.92	0.91	0.45	1.02
Mother had a child born within 7 months of marriage	-0.06	0.43	0.59	0.46	1.08#	0.57
Birth year <1925	Ref.		Ref.		Ref.	
Birth year 1926-1930	1.74***	0.53	0.48	0.46	0.41	0.60
Birth year 1931-1940	1.04*	0.49	0.20	0.45	-0.36	0.59
Birth year >1941	1.12#	0.66	1.08*	0.52	-0.02	0.79
Constant	-2.00***	0.52	-1.86***	0.44	-2.42***	0.53
Number of persons	263					
x2(def)	60.75(27)					
adjusted for 113 family clusters						

**p<0.01, * p<0.05, # p<0.1

For men, offending of the father (independent of whether or not he was incarcerated) does not influence the likelihood of belonging to a certain family-life cluster, but men's own early criminal career is linked to their later family-life trajectory (table 3). Having a juvenile conviction increases the likelihood of belonging to one of the "nonstandard" family-life trajectories compared to belonging to the standard one. The effect was strongest for the single men cluster. In a step-wise modeling approach, we saw that the direct effect of father's offending on son's likelihood to belong to the single cluster disappeared once we took the son's own delinquency into account³. Among the parental demographic variables, we find that parental divorce is the strongest predictor for belonging to the early wedding while pregnant and break-up clusters - but not for staying single. If the mother had been pregnant when she married, the son had a higher likelihood of belonging to the break-up/childless marriage cluster compared to belonging to the standard cluster.

A somewhat different picture emerges for women (table 4). Having a criminal father, who did

not serve a prison term, significantly increases the likelihood of belonging to the break-up or the single/late childless marriage cluster compared to belonging to the standard cluster. By contrast, a father who was incarcerated does not increase the likelihood of belonging to a particular cluster. In addition, for women, juvenile delinquency has no influence on cluster membership. Observing the demographic behaviour of the parents, we find - similar to the sons - that parental divorce increases the likelihood of belonging to the early wedding while pregnant and break-up clusters. Daughters whose mother had a child out of wedlock are less likely to belong to the early wedding while pregnant cluster compared to the standard family-life cluster, whereas daughters whose mother had a child within seven months of marriage are more likely to belong to the single/late childless marriage cluster. However, these findings were only significant at the p<0.1 level.

Generally, we see that parental divorce is the best predictor for both men and women to have a "nonstandard" family-life trajectory, in which also divorce occurs often. Other parental demographic

behaviour is not that clearly transmitted in our study, i.e. sons and daughters are not more likely to belong to the early wedding while pregnant cluster when their mother had a child within seven months of marriage and similarly out-of-wedlock childbirth of the mother is not associated with belonging to the early wedding or the break-up cluster.

Conclusion and discussion

The aim of this study was to examine the influence of family criminality and other family risk factors on children's family life courses.

In a first step, we found that the daughters in our Dutch offspring sample of low socioeconomic status born on average in 1932 followed the demographic behaviour of the average Dutch population more than the sons. The sample differed from the Dutch population born in similar birth cohorts in that women and men married younger, had more often married when the woman was already pregnant, and had elevated divorce rates. Men in addition remained comparatively often single and childless.

As demographic behaviours are often interlinked or may cluster within certain individuals, we visualized and explored sequences of family-life transitions from ages 18 to 50 years. We identified four behavioural clusters that were fairly similar for men and women. A standard pattern of marriage followed by childbirth and long stable marriages was present in slightly less than half of the sample. The other half of the sample had non-normative family-life trajectories. A particularity of the sample was that a substantial part had their children very early and within less than seven months of their marriage, and while their relationships were long-lasting they were at increased risk to end in divorce. Another share experienced an early break-up of a marriage. The final clusters were single for men and single/late childless marriage for women.

In the next part of the analysis, we examined the link between parental offending and the identified groups of family-life sequences. How can the findings be interpreted in light of the proposed mechanisms: a direct mechanism and two indirect ones where parental offending influences children's demographic behaviour via juvenile offending or via parent's own demographic behaviour?

We found no evidence of a direct effect of father's offending on son's family-life trajectories. The findings seem to support more an indirect mechanism via juvenile offending. A son's own juvenile deviance, as reflected by his serious

offending, is a consistent predictor of a "nonstandard" family-life course. Juvenile delinquency was previously shown to be linked to other deviant behaviours, for example early parenthood and marriage (Eggelston-Doherty, Green, & Ensminger, 2012). As such, we find many juvenile offenders in the 'early wedding while (partner) pregnant' family-life trajectory. Also, serious juvenile delinquency may make men less attractive marriage partners: men who had been seriously delinquent as an adolescent were more likely to remain single.

For daughters, the findings differed. Father's offending was found to have a direct influence on the family-life trajectories of their daughters. Daughters whose fathers offended but were not removed from the parental home through imprisonment were more often present in the break-up cluster and in the single/late childless marriage cluster. This indicates that exposure to a criminal father generated that risk. The finding allows different interpretations: socialisation into deviant behaviours, escaping a difficult household situation by marrying an unsuitable partner and stigma preventing family formation.

The daughters were probably – like the sons – socialised through their father's offending behaviour to reject certain conventional norms and behaviours, and they may have been more likely to accept divorce as a solution to marital conflict. Another explanation for the gender difference may be that girls were more restricted to the home environment than boys and were more exposed to and affected by a present criminal father. Some studies have found negative outcomes for children when a violent or drug addicted parent is present compared to a parent who was absent and incarcerated (Finlay & Neumark 2010; Jaffee, Moffitt, Caspi, & Taylor, 2003; Wildeman, 2010). Girls may also have seen marriage as the fastest route to escape a difficult house situation (see also Foster & Hagan, 2007) and may have ended up with too hastily chosen partners whom they divorced afterwards. Similarly, another share may have avoided marriage or foregone childbearing because of their difficult childhood home as described in Reading and Amatea's (1986) review of the psychological literature.

Another reason for the effect of fathers' offending on daughters' demographic behaviour may be that women in the period under study were

less able to escape their family background by building up their lives through for example employment. This would explain why having a delinquent father increased the odds most for remaining single or marrying late or having short relationships: Women from such a stigmatised background may – like men – have been less sought-after partners. What argues against this explanation is that having a father who went to prison – likely generating a greater stigma – did not increase the likelihood for such behaviour.

Although these explanations are tentative and need additional study, our findings indicate that a father's offending affects the family-life of his children, but that the mechanisms differ for sons and daughters. While fathers' offending does not affect sons' demographic outcomes directly but appears to do so through transmission of criminality, for daughters there does appear to be a direct effect of a father's criminality on her family-life course.

Our study has strong and weak points. A strong point is that the sample allows the modeling of entire family-life courses for a group with low socioeconomic status and at high risk of offending, in which relations are possible to emerge. A possible critique is the choice we made concerning the distinction between having a child before seven months of marriage or after eight months of marriage in the definition of states in the sequences analysis. This adds to the distinctive clusters for early wedding while pregnant and standard clusters, placing individuals in the states (MC and MC7) for long periods of time, although the event that decided this state is "long past". However, we believe it is important to account for the timing of childbirth, because it can drive the timing and duration of marriage. Without including the timing of childbirth in combination with the marriage trajectory, we could not holistically construct the family life trajectories. The timing difference early in life seems to be the main difference between these cluster types (and in some cases the earlier break-up of the early wedding marriages). Still our findings also highlight that the birth timing is important. We find these two distinct groups, because the two groups are apparently common among our sample. In addition, the results of the multinomial regression suggest that there are underlying differences between the groups. For sons, we see the higher level of juvenile

delinquency and for daughters a parental divorce effect for the early wedding clusters versus the standard clusters.

A weak point of our study is that we did not have any information beyond parental criminality, juvenile offending, and adult social roles. Thus, some of the associations we found may be spurious. Further studies should attempt to incorporate information on personality traits, early life events and contexts, such as aggression, impulsivity, and neighborhood. Another issue is the historical nature of the sample. One may question what relevance our findings have for current generations. This is, however, inherent to research where one wants to study individuals over a long time. Related to this is also the fact that our sample may be considered special in that the sons and daughters entered adulthood in a period with exceptionally standard life courses. However, as we compared individuals within the sample, the internal validity of our conclusions should not be affected. Our choice to study family-life courses from ages 18 to 50 – the age range where most family-life transitions occur – has its drawbacks too. One consequence is that our effect sizes are small – with numerous life events combined into long periods, effects are bound not to have emerged as sharply as when we would have investigated single events close in time. Nevertheless, this approach allowed us to model sequences and combinations of behaviour that otherwise would not have emerged and that was associated with different risk factors. If we had analysed single demographic transitions, we would have shown that the sample under study is at an increased risk of divorce, early marriage etc. Our analysis, however, was able to show that for a sizeable part of our sample, none of these off-time or negative transitions occurred and that almost half of our sample followed standard life courses, thus presenting a more nuanced view of the demographic careers of these high-risk men and women.

Further research is needed to study the mechanisms in more detail. Also, it would be worthwhile to study whether the found effects are also present in current cohorts that grew up in times where large parts of the population experienced a de-standardisation of the family-life course, although the length of the life course studied would be limited in current cohorts.

To sum up, our study illustrated the far-reaching consequences of parental offending. While it has been well-documented that parental criminality is transmitted intergenerationally, our study showed how parental crime – in tandem with their

demographic behaviour – affects the demographic trajectories of their children – and possibly eventually also the lives of their grandchildren.

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Endnotes

- 1 Barban & Billari (2012) showed that LCS and OM return fairly similar results.
- 2 Less than 5% of the offspring sample was born before 1921, 13% was born 1941-1950, and 3.5% was born after 1951.
- 3 As this was the only effect that changed, we decided to only show the full models. In another analysis we ran a path analysis contrasting those falling into the "standard" clusters versus all other clusters. There we found a similar effect: father's criminal involvement increased chances of juvenile delinquency for sons but did not significantly influence their family-life course. This additional analysis is available upon request from the corresponding author.