Earnings declines of men around the time of divorce in West Germany

Anke Radenacker, Daniel Brüggmann, Michaela Kreyenfeld Hertie School, Berlin

Abstract

This paper examines the earnings trajectories of divorced men in West Germany. It explores earnings changes around the time of divorce, and investigates how health and prior labor market performance affects the post-divorce earnings of men. The data come from the German Statutory Pension Register, which provides monthly employment and earnings histories as of age 14, as well as complete marriage histories for the divorced men we study. The analytical sample of this study contains 6,852 West German men who entered the divorce process between 1992 and 2013. For the time being, our descriptive findings show that overall men's earnings decreased around the time of divorce. However, the overall earnings level of divorced men has increased across divorce cohorts. Despite the decreases around the time of divorce, men earn on average around 90 per cent of average earnings. Men's marital earnings explain a large share of their earnings patterns after divorce. Men with low marital earnings even increase their earnings during the divorce process, though on an extremely low level. Furthermore, across all groups of marital earnings, men of the most recent divorce cohort experience lower relative earnings losses than the two preceding divorce cohorts.

1 Introduction

Previous research on the economic consequences of divorce mainly focused on women. In general, these studies found moderate changes in equivalent household income for men, but sharp declines for women around the time of divorce and separation (Andress et al. 2003; Leopold 2018; Andress und Bröckel 2007; Burkhauser et al. 1991; Duncan und Hoffman 1985; Bayaz-Ozturk et al. 2018; Jarvis und Jenkins 1999; Poortman 2000). However, as not all women experience income declines, not all men experience increases of their living standard or economic stability. In dual earner contexts such as the US, also the majority of men experiences declines in living standard due to the loss of their partner's income (McManus und DiPrete 2001).

Recent studies on the consequences of divorce have found that while women mainly experience financial hardship, men are more likely than women to experience a deterioration of their mental and physical health status (Andress und Bröckel 2007; Leopold 2018). Brüggmann (forthcoming) finds an increase in men's uptake of disability benefits around the time of divorce. Covizzi (2008) finds a greater risk of unemployment for employed men and women going through a divorce compared to married/cohabiting counterparts. However, as Leopold

(2018, S. 794) concludes for Germany, "(...) men's disproportionate psychological strain was transient, whereas women's disproportionate economic strain was chronic."

While a decline in health status may explain some of the drop in men's employment and earnings after divorce, researchers have also stipulated that some fathers may actively reduce their employment behavior and thus earnings in order to evade child and ex-spousal maintenance payments (Andress et al. 2003). Such behavior could be relevant in the German context as the level of ex-spousal maintenance payments used to be one of the highest in European countries. The maintenance reform of 2008 has lowered men's obligations to pay exspousal support, so that this reform may have affected divorced men's labor supply. Thus, our main research question is: **How did the maintenance reform of 2008 impacted divorced men's employment and earning trajectory?**

2 Institutional context

In comparative studies, Germany serves as the prime example of a country where the male breadwinner model remains dominant (Andress et al. 2003; Andress et al. 2006; Lewis und Ostner 1994; Lewis 1992). Thus, family and social policies in Germany have long supported family arrangements in which the male partner is the primary earner. Since the female employment rate in Germany has increased substantially over the last several decades (Eurostat 2019), it has recently been argued that the dominant family arrangement in the country is now the *modern* male breadwinner model, in which the wife works part-time; and that the dual earner model is gaining strength (Trappe et al. 2015). However, in Germany, relative to other European countries, the share of part-time work among employed women is high, the average hours worked in part-time jobs are low, and the resulting relative contribution of women to household earnings is likewise low (OECD 2017). Hence, men still contribute large shares to total household income and consequently lose much less partner income in relative terms than women upon divorce.

Overall in Germany, women's opportunities to combine work and family life have improved significantly. At the same time, however, the individual responsibilities of divorced mothers have increased. This shift is most evident in a change in the maintenance law enacted in 2008. Prior to 2008, a mother who divorced was not expected to work, and was entitled to receive rather generous ex-spousal maintenance until her youngest child reached age eight. After that point, the mother was expected to work part-time. Moreover, if the mother did not work full-time, the support she received from her ex-spouse did not end until the youngest child turned 15 years old. Until that point, the care-giving parent generally received ex-spousal maintenance as well as child alimony from the non-resident parent. The reform meant a drastic cut in exspousal maintenance claims to the level of those for unmarried mothers. Since 2008, separated and divorced mothers receive maintenance payments only until their youngest child turns three

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¹ The legal context changed abruptly as a result of a decision of the German Federal Constitutional Court that requested to abolish the unequal treatment of children born to unmarried mothers, who previously had shorter maintenance claims than children of married mothers (BVerfG, Beschluss des Ersten Senats vom 28. Februar 2007, 1 BvL 9/04, Rn. (1-78)).

years old. After this point, mothers are expected to take up employment or extend their working hours. Inversely, fathers' obligations to pay ex-spousal support have decreased, at least de jure.² Both the level and the duration of payments can be reduced or limited. In how far this is actually implemented in legal practice is unclear (Lenze 2014). At the same time, compliance with maintenance obligations, especially for the ex-partner, has been shown to be rather low in Germany (Hartmann 2014; Forsa 2002; Proksch 2001). Low overall compliance means that changes of the legal rules might not affect the actual paying practice.

Among the main reasons for non-compliance with maintenance obligations is the fact that fathers are financially unable to meet their obligations, (Hartmann 2014; Forsa 2002; Proksch 2001). Men are obliged to pay maintenance payments only when their income is above a minimum net income of €1,080 per month if employed, or €880 if unemployed (OLG Düsseldorf 2019). Fathers with incomes slightly above the subsistence levels have higher incentives to lower their employment behavior and earnings than higher income men because any excess earnings have to be transferred in form of alimony payments to the ex-partner and children.

The recent changes in the institutional context in Germany that have incentivized single mothers to take more individual responsibility, and to combine work and family life to a greater extent than in the past, would suggest that divorced men in Germany are confronted with lower maintenance claims than before the reform. For those men who would have benefitted most from decreasing their earnings in order to avoid maintenance payments, the incentives are lower now after the reform compared to before.

3 Prior research

The divorce literature has unanimously found that women who separate or divorce face adverse economic consequences, and that they generally suffer far greater losses than men (Andress et al. 2003; Andress und Bröckel 2007; Burkhauser et al. 1991; Duncan und Hoffman 1985; Finnie 1993; Bayaz-Ozturk et al. 2018; Jarvis und Jenkins 1999; Leopold 2018; Poortman 2000). The main explanations for the gender gap in the economic outcomes of the partners following union dissolution are women's lower labour force attachment levels before separation and divorce, and women's greater likelihood of being the main carer for the children after union dissolution. According to these studies, men's income changes range from losses of seven per cent to gains of six per cent of equivalent household income. However, McManus and DiPrete (2001) point out the variation of reactions also among men. They find that only typical male breadwinners actually benefit in economic terms from a divorce while the vast majority of men loses their partners' income and this economic interdependence has increased for couples in the US.

While the majority of studies on the economic consequences of divorce focused on household income, fewer studies have examined the employment rates and individual earnings of divorced men and women. As for men, since they usually work fulltime, a reduction is more probable

² Child alimony payments were not affected by this reform.

than an increase (Bröckel und Andress 2015, S. 298). Accordingly, Bröckel and Andreß (2015) show that a total of nine per cent of men decrease their employment behavior between two years before until one year after the separation of marital unions in Germany due to less fulltime employment and more unemployment. The average earnings of men who were gainfully employed both before and after separation remain, however, basically unaffected by this change. These men experience negligible average earnings declines, the median change in earnings is even positive. Nevertheless, a quarter of them has to deal with earnings declines of at least 13 per cent. Raz-Yurovich (2013) finds that men's employment stability suffers during divorce but their earnings and salary grwoth rates are unaffected. Covizzi (2008) finds a greater risk of unemployment for employed men and women going through a divorce compared to married/cohabiting counterparts.

It is unclear, however, whether drops in earnings and employment may be related to health impairments. Couch et al. (2013) find a long-term impact of divorce on self-reported work limitations and federal disability benefit receipt only for those men who do not remarry. Brüggmann (forthcoming) finds an increased risk of work disability among West German men who divorce. This fits well to findings of Leopold (2018) who report that men suffer rather in psychological terms than in economic terms. Another explanation for men's drop in earnings and income may be related to men trying to avoid ex-spousal support. Andress et al. (2003: 133) who conducted a survey which included attitudes of divorced men and women in Germany found that among the men who decrease their employment, a quarter reported that "work does not pay off because of the maintenance payments."

4 Data and method

4.1 Data & sample selection

Our analysis uses register data of the German statutory pension insurance, which includes monthly data on men's earnings over the whole life course, as well as complete and monthly marital histories of divorcees. The dataset we draw upon is a scientific use file of a sample of insurance accounts (VSKT2015) of the German statutory pension insurance (Himmelreicher und Stegmann 2008). It contains monthly data on women's earnings during their whole life course starting at age 14, as well as monthly fertility biographies of women (Kreyenfeld and Mika 2006). It was combined with information from a register of pension splitting procedures. These data include monthly marital histories for women who divorced. This combined dataset (SUF-VSKT-VA 2015) is newly available as a scientific use file from the Research Data Centre of the German Statutory Pension Fund, and provides the basis for this investigation.³ There are many advantages to using this dataset. Unlike the data that have typically been used to address similar research questions, such as data from the German Socio-Economic Panel (GSOEP), these data do not suffer from attrition or non-response bias. The insured individuals have a vested interest in disclosing their earnings and fertility details, as their pension calculations are

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based on the correctness and the completeness of their data. Furthermore, the dataset includes a much larger number of divorcees than most social science surveys. This large sample size allows us to perform analyses of subgroups of the divorced population that previous studies were not able to undertake. However, there are also some disadvantages associated with using this dataset. First, the data are not a representative sample of the resident German population. Certain groups, such as civil servants and farmers, are not covered. Furthermore, not all divorces are included in the data, as only divorces that involved a "pension splitting procedure" are registered. Pension splitting means that the pension entitlements that were accrued during the marriage by both partners are added up and then divided equally between the spouses. While this is the default process for dividing retirement benefits in German divorce law, couples can agree to exclude pension splitting from the divorce proceedings. Little is known about the characteristics of the couples who do not use pension splitting, but it is likely that most are couples with short marriages or marriages during which the partners had more or less equal earnings (Keck et al. 2019).

The SUF-VSKT-VA 2015 dataset is comprised of 267,812 individuals born between 1948 and 1985. Younger cohorts are not included because insurance accounts are "cleared" for the first time at age 29, and complete information is available only after this "clearance" has occurred. Furthermore, only individuals with German citizenship who were living in Germany in 2015 are included in this data file. For the purposes of our analyses, we further restrict the sample to West German men who started the divorce process between 1992 and 2013, and who were between 20 and 54 years old at the time of the divorce. In addition, we have restricted the analysis to individuals in West Germany, as understanding the employment and divorce patterns of East Germans would have required a separate investigation. We have furthermore limited the sample to individuals who divorced after at least three years of marriage. Finally, we include first marriages only. After these selection criteria are applied, we end up with a total sample of 6,852 divorced men.

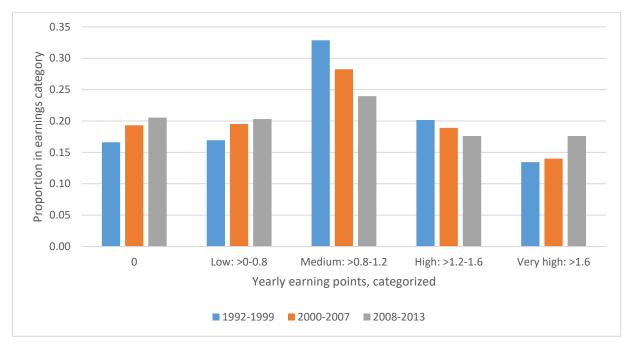
4.2 Variables

Individual earnings. The dependent variable is individual labour earnings measured in the form of pension points. Pension points are accumulated throughout the life course, not only from employment, but from creditable periods, such as periods spent in child-rearing, education, work disability, or even unemployment. For our analyses, we only use pension points earned from employment that is subject to social security payments to mirror individual labour earnings. This includes earnings from certain forms of self-employment that are subject to social security payments, such as self-employment as a child care professional, a midwife, or a crafts person. An individual earns one pension point based on the yearly average income. The yearly average income is adjusted on an annual basis, and amounted to €35,363 for West Germany in 2015 (Appendix 1, Book VI of the German Social Welfare Code). The maximum number of pension points an individual can earn in one year is about two points (€72,600 in 2015, Appendix 2, Book VI of the German Social Welfare Code). Earnings above this threshold are not pensionable earnings, and thus do not increase pension entitlements. We create a

measure of yearly earnings by summing up the earnings of 12 months per calendar year. Men who were not employed are included, and thus contribute zero earnings for the months and years they were not employed. We measure earnings in one-year intervals, starting from two years before the divorce until two years after the divorce. Thus, we end up with four-year episodes that include five points in time around the event. We argue that the majority of the employment changes associated with divorce happen during this period.

Figure 1 shows the distribution of earnings in the year of divorce for men of the divorce cohorts 1992-1999, 2000-2007, and 2008-2013. The share of men with zero earnings (and who thus were not employed for the whole year when the divorce was filed) increased across the cohorts. Accordingly, the share of divorced men with positive earnings decreased across the cohorts. However, the decrease is not equally distributed across income groups. Especially the share of men with medium earnings between 0.8 and 1.2 points decreased substantially across the divorce cohorts. Increases have only taken place in the low earnings group (between 0 and 0.8 earnings points) and in the very high earnings group (more than 1.6 earnings points). This changed distribution might point to a growing divide in men's earnings at the time of divorce.

Figure 1: Distribution of average yearly earning points from employment during a five-year window around divorce, West German men (33,970 person-years), by categories of yearly earning points and by divorce cohorts



Source: SUF-VSKT-VA 2015, own calculations.

Divorce. The pension data do not include information on the exact timing of the divorce. Instead, the end of the so-called "marriage time" is marked by the postal delivery of the divorce petition from the family court to the defendant.⁴ It is this event that is referred to as divorce throughout the chapter. Due to a statutory waiting time of one year before a divorce can be filed in Germany, the actual separation of the couple would have taken place at least 10 months before the event that we call divorce here.

Divorce cohort. We distinguished three divorce cohorts: 1992 to 1999, 2000 to 2007, and 2008 to 2013. We use the year 1999 as a cut-point to enable us to compare our results to the findings of Bröckel and Andreß (2015), who looked at the time trends in divorce consequences before and after the turn of the millennium. We also use the year 2007 as another cut-point to account for the 2008 changes in the regulations for spousal maintenance that drastically reduced maintenance claims.

Age at marriage, age at divorce. These variables are self-explanatory. We exclude them from the regression analyses due to multicollinearity, but report their means in the summary statistics in Table 1 below.

Duration of marriage. The marriage duration is the time between the month of the marriage and the month of the postal delivery of the divorce petition from the family court to the defendant (see "divorce" variable above).

Maximum yearly earning points during marriage. This variable reflects the highest yearly amount of earning points the man ever earned during his marriage. It serves as a proxy for the man's earnings potential.

Table 1 shows the summary statistics of the variables that are included in the analyses. We can see that the age at marriage, the age at first birth, and the age at divorce of divorced mothers increased across the divorce cohorts. The number of children remained stable across the cohorts, but the age of the youngest child increased. It is possible that these composition changes led to changes in the labour force attachment of divorced mothers over time, as mothers' labour force attachment generally increases with the age of the youngest child. The maximum number of yearly earnings points women had during marriage increased only slightly across the divorce cohorts. This finding can be attributed to a decrease in the number of mothers with zero earnings that was accompanied by an increase in earnings, mostly at the lower end of the earnings distribution (see Figure 1).

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Neither the date of the actual separation of the couple nor the date of the effective divorce are relevant for the calculation of pensions. Therefore, these dates are not included in the data. Only the so-called "marriage time" is relevant for the equalization of pension points, which were jointly accumulated by both spouses during their marriage.

Table 1: Summary statistics (mean), divorced men, by divorce cohort

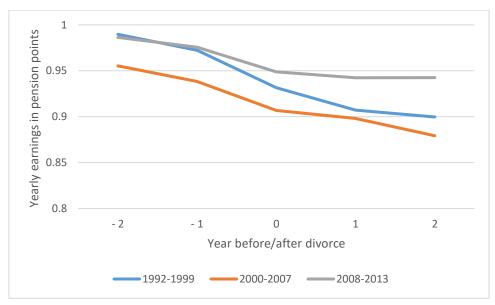
| | 1992-1999 | 2000-2007 | 2008-2013 |
|---|-----------|-----------|-----------|
| Age at marriage | 25.6 | 26.9 | 27.8 |
| Age at divorce | 36.4 | 38.3 | 40.9 |
| Duration of marriage | 11.2 | 12.8 | 13.5 |
| Max. of yearly earn. points during marriage | 1.25 | 1.26 | 1.23 |
| N (individuals) | 2,052 | 2,763 | 2,037 |

Source: SUF-VSKT-VA 2015, own calculations.

5 Preliminary findings

Figure 2 shows the average yearly earning points of West German men during the divorce process (men with zero earnings during this period are excluded) for the three divorce cohorts. It shows that men of all three divorce cohorts experience average earnings declines in the period from two years before until two years after divorce. Divorced men of the most recent divorce cohort show the lowest relative earnings changes and show the highest average earnings level of all three divorce cohorts. Despite their earnings losses, especially divorced men of the divorce cohort 2008-2013 have average earnings close to one earnings point which represents average earnings of the insured population.

Figure 2: Average yearly earning points of West German men during the divorce process, by divorce cohorts, men with zero earnings during this period are excluded



Source: SUF-VSKT-VA 2015, own calculations.

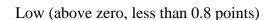
Figure 3 shows the earnings trajectories of divorced West German men by categories of their marital earnings (same categories as in Figure 1 above). It shows that the earnings of men of the most recent divorce cohort 2008-2013 are least affected by a divorce. Their earnings

trajectories show the least changes around the time of divorce among the three divorce cohorts. This could lend support to the argument that some men might decrease employment and thus earnings in order to avoid paying ex-spousal support and that this would be less of a reason due to the latest maintenance reform. Low income men even experience gains in individual earnings across all three divorce cohorts. Their income levels are so low that their earnings are mostly still below the subsistence level.

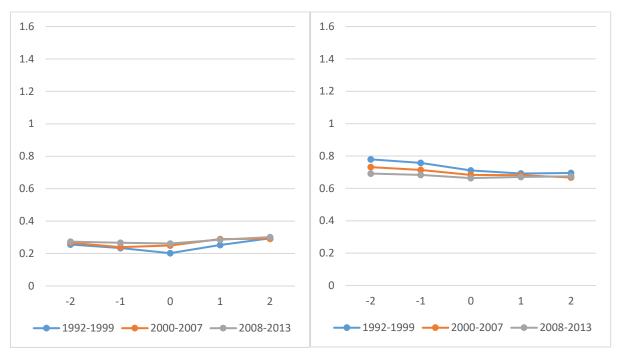
For all income groups except the medium earners, the earnings level has increased across the divorce cohorts. However, this might be driven by the changing composition of divorced men across the divorce cohorts. Men's age at divorce has increased across the divorce cohorts so that men are increasingly at a life stage in which earnings are higher than at younger ages.

The reasons for earnings decreases might differ between men by groups of marital income. While medium income men might have the highest incentives to decrease employment in order to avoid paying alimony, very high income men probably work overhours and thus have to reduce their working hours in order to spend time with their children.

Figure 3: Average yearly earning points of West German men during the divorce process, by divorce cohorts and categories of marital earnings, men with zero earnings during this period are excluded

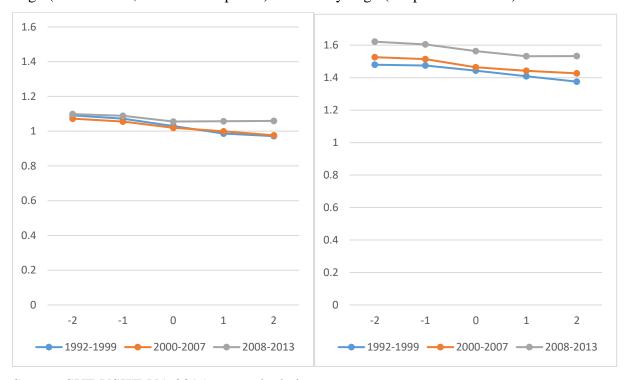


Medium (0.8 or above, less than 1.2 points)



High (1.2 or above, less than 1.6 points)

Very High (1.6 points or above)



Source: SUF-VSKT-VA 2015, own calculations.

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