

DIEDERIK BOERTIEN  Center for Demographic StudiesPHILIPP M. LERSCH  Humboldt-Universität zu Berlin*

Gender and Changes in Household Wealth after the Dissolution of Marriage and Cohabitation in Germany

Objective: To document how changes in household wealth following the dissolution of marriage and cohabitation differ by gender in Germany.

Background: Marital property regimes usually prescribe that both partners receive a share of the couple's wealth following a divorce. The dissolution of cohabiting unions is not governed by marital property regimes in most countries, including Germany. Because men, on average, legally own a larger share of couple wealth than women, gender differences in household wealth might be more pronounced following the dissolution of cohabitation as compared to marriage.

Method: The analysis consists of individual fixed effects regression models using longitudinal data from the German socio-economic panel

($N = 18,131$ individuals) for the years 2002 to 2017.

Results: The dissolution of marriage is negatively related to the accumulation of wealth over time and effect sizes are similar for men and women. The dissolution of cohabiting unions is related to losses in wealth for women but not for men. Models accounting for various postdissolution factors suggest that an unequal division of household wealth produces these gender differences after the dissolution of cohabitation.

Conclusion: Whereas the dissolution of marriage lowers household wealth for men and women alike, there are gender differences in how the dissolution of cohabiting unions affects the accumulation of wealth. Union dissolution therefore has the potential to contribute to gender inequality in household wealth.

Centre d'Estudis Demogràfics, Carrer de Ca n'Altayó,
Edifici E2, Universitat Autònoma de Barcelona, 08193
Bellaterra, Spain.

*Department of Social Sciences, Humboldt-Universität zu
Berlin, DIW Berlin, Mohrenstraße 58, 10117 Berlin,
Germany (p.m.lersch@hu-berlin.de).

© 2020 The Authors. *Journal of Marriage and Family* published by Wiley Periodicals LLC on behalf of National Council on Family Relations.

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

Key Words: divorce, economic well-being, gender, inequalities, separation.

How consequential is union dissolution for an individual's economic resources? A large body of literature has documented how household income drops after union dissolution (Andreß, Borgloh, Bröckel, Giesselmann, & Hummelsheim, 2006; McManus & DiPrete, 2001; Smock, 1994; Uunk, 2004; Van Damme, Kalmijn, & Uunk, 2008). Because these economic losses are greater for women (Andreß et al., 2006; DiPrete & McManus, 2000; Van Damme et al., 2008), union dissolution is a factor that contributes to gender inequality in household income. What is missing from this relatively large body of literature

on the economic consequences of union dissolution is what happens with men's and women's household wealth after separation or divorce (exceptions are Addo & Lichter, 2013; Painter, Frech, & Williams, 2015; Wilmoth & Koso, 2002; Zagorsky, 2005).

It is important to include wealth in the study of the economic consequences of union dissolution for several reasons. First, union dissolution is a potential driver behind wealth inequality between individuals (Zagorsky, 2005). Second, accumulated wealth can be employed to cushion the impact of separation on a person's standard of living (Killewald, Pfeffer, & Schachner, 2017). How well men and women are able to deal with a union dissolution depends on initial levels of household wealth, how wealth is split between partners, and differences in individual wealth accumulation following a breakup. Even though income differences predominantly favor men following divorce, most wealth is split equally among divorcing partners (depending on the legal context). In some legal contexts, women can claim larger parts of household wealth due to their higher financial need following dissolution (Smith, 2002). If this is the case, wealth can turn out to be an important resource cushioning gender differences in the overall economic consequences of union dissolution.

At the same time, there are several reasons to believe that wealth trajectories of ex-partners might diverge following union dissolution. First of all, the division of wealth following a divorce will be influenced by the marital property regime of the context studied. In Germany, the country-case of our study, the default property regime stipulates equal sharing of wealth accrued during marriage. There are important exceptions to this default regime: Premarriage wealth and inheritances are not shared and the default property regime may be modified through prenuptial agreements. Given that women are likely to bring less wealth into the marriage (Sierminska, Frick, & Grabka, 2010) we expect them to leave a relationship with less wealth too.

Second, the separation of cohabiting unions is not governed by the same rules as marriage (Perelli-Harris & Sánchez Gassen, 2012). There is no legal obligation to split wealth accumulated during cohabitation in most countries, including Germany. Because of men's higher earnings as compared to women's, men are likely to generate

relatively more (financial) wealth during relationships (Lersch, 2017). After the dissolution of a marriage, women normally have the right to half of this accumulated wealth. However, women have no legal basis to claim an equal share after the end of a cohabiting union. The division of household wealth is therefore likely to be less gender-equal following the dissolution of cohabiting unions than after divorces.

In short, there are important reasons to expect that a sole focus on income can underestimate gender inequality in the economic consequences of union dissolution. In this study, we use longitudinal data from the German socio-economic panel (SOEP) to document changes in household wealth after union dissolution. The main questions we ask are: Are there gender differences in how much household wealth changes after the dissolution of marriage and cohabitation? Are gender differences produced by postdissolution processes or because of the division of wealth at the time of union dissolution?

Our results indicate that both men and women end up with less per capita household wealth after the dissolution of marriage and there are no major gender differences in how much wealth is lost. At the same time, we find that the dissolution of cohabiting unions is related to wealth losses for women, but not for men. Once accounting for postdissolution processes, these gender differences persist. This suggests that an unequal division of household wealth leads to gendered wealth losses after the dissolution of cohabiting unions. If future research consolidates this finding, and if cohabitation keeps becoming more prevalent, union dissolution might become an increasingly important determinant of gender differences in household wealth.

BACKGROUND

Gender, Union Dissolution, and Wealth

A handful of studies has documented how wealth relates to separation or divorce from marriage in the United States, without paying much attention to gender differences (Addo & Lichter, 2013; Halpern-Manners, Warren, Raymo, & Nicholson, 2015; Painter et al., 2015; Wilmoth & Koso, 2002; Zagorsky, 2005). These studies have generally examined levels of household wealth depending on individuals' partnership trajectories experienced in the past

(with the exception of the analysis of changes over time performed by Zagorsky, 2005). Individuals who experienced the dissolution of a marriage have lower household wealth compared to continuously partnered people (Addo & Lichter, 2013; Painter et al., 2015; Wilmoth & Koso, 2002; Zagorsky, 2005). Findings regarding re-marriage have been mixed. Some studies found re-marriage to dampen or eliminate the effects of union dissolution (Painter et al., 2015; Wilmoth & Koso, 2002), but other studies found persisting disadvantage after re-marriage (Addo & Lichter, 2013).

These previous studies proposed several mechanisms that could produce wealth losses after union dissolution. First, economies of scale make it cheaper for two individuals to live together instead of having to maintain two separate households. Union dissolution implies losses of these economies of scale and at least one partner must find new accommodation. The costs related to such a move are likely to reduce the former partners' overall stock of wealth (Zagorsky, 2005). Second, the direct costs of legal divorce may further reduce wealth after marriage. Third, besides economies of scale, there are other reasons why persons in a union accumulate more wealth as compared to single individuals; these include possible tax benefits and increased incentives to save (Lersch, 2017; Vespa & Painter, 2011). Union dissolution will put an end to such benefits related to being in a union. Fourth, behavior changes following separation (Zagorsky, 2005) and this might affect earnings, consumption, and saving. For instance, many women who end up with physical custody of dependent children have to reduce their labor supply following a breakup (Van Damme et al., 2008). Last, individuals who end a union might be selected in terms of their economic resources as compared to individuals who stay with their partners. Therefore, the cross-sectional differences in wealth observed in some of the previous studies (Addo & Lichter, 2013; Wilmoth & Koso, 2002) might reflect preexisting economic disadvantage rather than a causal effect of union dissolution on wealth. One important limitation of existing research is that no study, to our knowledge, examined changes in wealth after the dissolution of cohabitation.

Most of the mechanisms described above can apply to cohabitation and marriage alike, with the exception of legal costs related to divorce

and marriage-related tax benefits. This would suggest relatively modest differences between cohabitation and marriage in how much union dissolution affects wealth. However, couples who cohabit might differ in terms of the amount of wealth they own as compared to married couples. If this is the case, they might have relatively less to lose from union dissolution, leading to fewer changes in household wealth following the dissolution of cohabiting unions as compared to divorce. Research on income has found that women's income losses after the dissolution of cohabitation used to be less severe than income losses after divorce, but these differences converged over time; probably related to changing selection into cohabitation (Tach & Eads, 2015).

Existing research has paid little attention to the question of whether there are any gender differences in the consequences of union dissolution for household wealth. Zagorsky (2005) found women's wealth to be affected slightly more by divorce than men's wealth, but concluded that divorce "destroys wealth dramatically for both sexes" (p. 418). Wilmoth and Koso (2002) did not find significant gender differences in the effects of separation from first marriages but found women who separated from higher-order marriages and who divorced (regardless of union order) to have less wealth than men who experienced those events. Why might we expect gender differences in wealth losses after union dissolution? We discuss three major explanations: rules specific to marital property regimes, wealth accumulation within cohabitation, and gender differences in postseparation processes.

Marital Property Regimes

Divorce marks the legal end of marriage where the final re-distribution of wealth is settled according to marital property regimes. We expect that partners anticipate these legal obligations and, therefore, that the consequences of a marital dissolution already emerge with the end of co-residence when both partners divide their property.

The extent to which wealth is shared after a divorce depends on the legal context studied. Which parts of wealth are divided after divorce and what the leading principle is to achieve an equitable distribution of assets differs across countries. In some countries, all of the couple's wealth is divided across partners.

In some countries, couple wealth is divided into two equal parts (e.g., the Nordic countries and some states in the United States; Voena, 2015), whereas in other contexts “need” is the leading principle to determine the share of wealth assigned to each partner and judges have great discretion in dividing assets (e.g., in England and Wales; Smith, 2002). Because needs vary across individuals and are in general higher for women (related to the co-residence of children), “needs-based” systems might end up giving relatively more wealth to women as compared to other systems.

In Germany, the country of our study, only wealth accumulated during the marriage is divided between partners after divorce (Smith, 2002). This implies that individuals who bring less wealth into the relationship than their partners will also lose more in terms of household wealth following divorce. Previous research on Germany has shown that men bring more wealth to marriages (Kapelle & Lersch, 2020; Sierminska et al., 2010). Because men are on average older at union formation and have higher earnings, they are likely to have had more possibilities to accumulate wealth before union formation than their female partners. Hence, men’s household wealth might drop less pronouncedly following divorce than women’s household wealth in Germany. This would differ from previous findings on the US context that gender differences in wealth losses after divorce are relatively minor (Zagorsky, 2005).

A deviation from an equal division of wealth can also arise when prenuptial agreements modify the applicable marital regime. Rising divorce rates might make couples more wary of entering into a union that can lead to pronounced wealth losses in the case of divorce. Therefore, prenuptial agreements might have become more relevant (Rainer, 2007) and might have increased inequality in the division of wealth following divorces. For France, evidence indeed showed that married couples increasingly sign prenuptial agreements and separate their wealth (Frémeaux & Leturcq, 2018). For Germany, these trends have not yet been examined.

Wealth Accumulation within Cohabitation

The division of wealth might be less equal after the dissolution of cohabiting unions because laws equalizing the distribution of household

wealth after divorce are not applied for cohabitation. Cohabiting couples normally do not have to inform authorities about the dissolution of their union, and if so, procedures are relatively simple (Perelli-Harris & Sánchez Gassen, 2012). Some countries mention cohabiting unions in their laws, but the dissolution of cohabiting relationships remains largely unregulated, with the partial exceptions of Sweden, Norway, and registered partnerships in France and the Netherlands. In Germany, marital property law does not govern the dissolution of cohabiting unions. The law does prescribe alimony payments if the couple recently had a child (Perelli-Harris & Sánchez Gassen, 2012, p. 448) and there are some (very limited) possibilities to claim economic compensation from former partners outside of marital property law (Sanders, 2013). Since 2008, individuals can, in principle, claim compensation if they made individual contributions to “the couple” of lasting financial value. This includes financial contributions made to assets, such as mortgage payments, but excludes day-to-day expenses and efforts including domestic work and childcare (Sanders, 2013, p. 646).

As compared to marriage, this implies that assets accumulated during the duration of the union should only be divided between partners after the dissolution of a cohabiting union if both partners directly contributed to acquiring an asset. Hence, if women contribute less to the accumulation of wealth within relationships, this will lead to gender differences in how much household wealth changes after the dissolution of cohabiting unions. Previous research has shown that men indeed accumulate more wealth than women within relationships. By far the most important determinants of individual wealth accumulation within couples are labor market experience and earnings (Sierminska et al., 2010), suggesting that the higher earnings potential of men translates into an unequal accumulation of wealth within relationships (Lersch, 2017).

Gender differences in how wealth changes after dissolution might be even more pronounced because cohabiting couples are more likely to keep their finances separate (Hiekel, Liefbroer, & Poortman, 2014) and are therefore less likely to accumulate joint wealth. In a study of individual wealth ownership within marriages and cohabiting unions in Germany, Grabka, Marcus, and Sierminska (2015) found that women owned on average 37% of couple wealth in 2007. But,

the gender gap in wealth within relationships did not differ significantly or substantively depending on marital status. Similarly, Kapelle and Lersch (2020) showed that the gender gap in wealth within couples changes little once couples transition from cohabitation to marriage.

Postdissolution Processes

In most empirical settings, wealth is measured at a given point in time before and after the event (e.g., Zagorsky, 2005). Therefore, estimates both reflect how wealth is divided between partners at the time of union dissolution as well as processes that affect individual wealth accumulation after dissolution. Two such processes appear important to highlight: variation in earnings, consumption, and savings on the one hand, and re-partnering on the other hand.

Previous studies found greater economic consequences of union dissolution for women in terms of household income (Andreas et al., 2006; McManus & DiPrete, 2001; Smock, 1994; Uunk, 2004; Van Damme et al., 2008). This is partly due to the higher chances of living with children and the resulting care obligations that hinder labor market participation. In addition, mothers living with children have greater economic needs as compared to their partners. This will result in lower savings for women and in gender differences in wealth trajectories following union dissolution disadvantaging women.

Studies on divorce have generally found re-partnering to offset part of the negative effects of union dissolution on women's wealth, but even after remarriage, their wealth remains lower compared to the continuously married (Painter et al., 2015; Wilmoth & Koso, 2002). At the same time, given that men in general re-partner more often and faster than women (Di Nallo, 2019), re-partnering might actually increase the average gap in wealth between men and women following union dissolution.

This Study: Union Dissolution and Wealth in Germany

In this article, we study union dissolution in 21st century Germany. We follow individuals across time in order to estimate changes in per capita household wealth after union dissolution. Following earlier studies on gender

differences in the consequences of union dissolution, we are interested in how women's and men's standard of living changes after a breakup (McManus & DiPrete, 2001; Smock, 1994; Tach & Eads, 2015). Main results are presented in terms of changes in per capita household wealth across waves. This raises the question to what extent household wealth accurately captures an individuals' standard of living. Households' economic resources are not always shared equally between partners, with men often having a greater command over economic resources than women (Cantillon, 2013; Lauer & Yodanis, 2011). Therefore, standards of living can vary within households and studies suggest that individuals in cohabiting unions are less likely to share economic resources than persons in a marriage (Bennett, 2013). Therefore, we also examine individual measures of wealth (i.e., based on the legal ownership of wealth; see Grabka et al., 2015) in an additional set of analyses.

Previous studies found relatively minor gender differences in household wealth following divorce in the United States (Wilmoth & Koso, 2002; Zagorsky, 2005). We expect to find clearer gender differences in our study for two reasons: (a) in Germany, premarriage wealth is not divided after divorce, whereas this is the case in some states of the United States; (b) we include cohabiting unions where no division of wealth is required after dissolution.

Besides estimating gender differences in the overall change in per capita household wealth after the dissolution of cohabitation and marriage, the second major goal of this article is to understand whether these differences arise due to postdissolution processes or because wealth is split unevenly at the time of dissolution. We expect an unequal division of wealth after the dissolution of cohabitation in particular. Differences between cohabitation and marriage have not been studied longitudinally in previous research. Because the division of wealth is not regulated in most countries (Perelli-Harris & Sánchez Gassen, 2012) studying gender differences in how wealth is split after cohabitation in Germany will be relevant for other contexts too.

DATA AND METHOD

Data

We use longitudinal data from the SOEP (version 34; <https://doi.org/10.5684/soep.v34>); all

Stata code used for data management and analysis is available at <https://doi.org/10.17605/OSF.IO/GTKH7> covering the period 2002–2017, excluding extension samples without wealth measurement (Goebel et al., 2019). The SOEP is a household panel survey interviewing a representative sample of the German population on an annual basis. Information on wealth has been collected by the SOEP every 5 years since 2002. In the current study, we use information on wealth from four measurement points (2002, 2007, 2012, 2017) and waves in between are used to construct additional variables.

Sample

We restrict the sample to respondents aged 18–79 (reduction from $N = 89,734$ to $84,649$ individual-year observations), to private households (remaining $N = 84,301$), and to household heads and their partners ($N = 75,039$). We exclude same-sex couples ($N = 74,819$). We construct two different analytical samples. One sample consists of all respondents who were in a co-residential relationship during any of the four waves with information on wealth ($N = 10,728$), and a second sample includes all respondents who were married during any of the waves considered ($N = 53,700$). Individuals can be part of both samples if they had both cohabited and been married during the observation period. For each sample, we include the first wave we observe an individual in a union/marriage as well as all subsequent waves until the end of the observation period, regardless of additional union transitions. Respondents that marry their cohabiting partner are right-censored in the cohabitation sample ($N = 8,816$). We subsequently construct a person-year dataset with information from all waves for which individuals provided information on wealth in at least two waves. This allows us to examine differences in predissolution and postdissolution wealth. The final sample for our analysis of cohabitation includes 4,924 individual-year observations from 1,963 individuals and for our analysis of marriage 43,349 individual-year observations from 16,068 individuals. Table 1 gives an overview of sample sizes and the number of separation events experienced according to gender and marital status. We draw on multiply imputed wealth data from the SOEP team. Around 5% of the sample contains missing information on other variables.

Table 1. *Sample Sizes and Number of Events Recorded*

	Women	Men
Cohabiting persons	1,052	911
Number of dissolutions from cohabitation	405	326
Married persons	8,374	7,794
Number of dissolutions from marriage	692	472

Therefore, we additionally multiply impute 40 possible values for missing information and use the resulting 40 imputed datasets in the analysis.

Measurement

Wealth. The outcome of interest is total net household wealth (all assets minus debts and loans). Assets include real estate, financial assets, life insurance, private pension plans, and businesses. Debts include mortgages, loans, and other debts. The SOEP collects wealth at the individual level. When collecting data on collectively owned assets and debts, all individuals are asked what share of each asset each household member owns. Given our interest in individuals' standard of living, we focus on per capita wealth, which is operationalized as total household net wealth divided by the number of household members aged 18 or above. In a second step of our analysis, we also look at individual wealth to investigate to what extent differences in wealth losses reflect predissolution differences in ownership of assets (and debts). To further understand the mechanisms underlying wealth losses, we also run our main models for, first, housing and financial wealth, and, second, for assets and debts separately.

Wealth is a highly skewed variable, but given that wealth has both positive and negative values, commonly used transformations (such as the natural logarithm) would exclude important information from the analysis. The two most common ways to transform wealth are to calculate a rank measure or to employ the inverse hyperbolic sine (IHS)-transformation (Killewald et al., 2017). In our case, the advantage of using a rank-based measure is that it more effectively accounts for periodic changes in the distribution of wealth (and hence periodic changes in effect sizes) and provides easy to interpret results. Therefore, we use individuals' rank in the wealth

distribution as the dependent variable in our main analysis. This rank is calculated for each wave separately, jointly for men and women, and indicates the proportion of cases having less household wealth than the individual considered (the rank ranges from 0 to 1). In robustness checks, we use the IHS-transformed version of the per capita wealth variable with a theta of 0.0001 (Friedline, Masa, & Chowa, 2015). For this measure, wealth is adjusted for price inflation (set to prices of 2015) and its distribution is winsorized at the 0.1 and 99.9 percentiles.

Union Dissolution. We define union dissolution similarly for cohabitation and marriage: an individual's partner who was observed in the household in a given wave is not in the household anymore in the next wave with information on wealth and the partner has not died (cases where a partner died are right-censored). If partners move out of the household but are observed again in the same household in later waves, we do not consider this couple as having experienced a union dissolution. For individuals who experienced the dissolution of a union, our dependent variable takes on the value of 1 for all waves following the dissolution. After marriage, we do not differentiate between the end of co-residence and legal divorce, but we examine legal divorce as the event of union dissolution in robustness checks. Person-years before dissolution take on the value of 0; this is also the case for all the person-years of individuals who did not experience a dissolution between 2002 and 2017. In additional analysis, we split the union dissolution variable into various categories based on *Time since dissolution* which captures the waves elapsed since the partner is not observed in the same household anymore. Note that because wealth is measured once every 5 years, the first measurement of wealth after union dissolution might occur various years after union dissolution. Finally, we split the separation variable into categories based on *Union duration at the time of dissolution* to investigate whether differences in the duration of cohabiting and married unions play a role in our results.

Additional Variables. We control for survey year, age, and age squared in all models. We are interested in whether wealth losses arise due to how wealth is divided between former partners

or due to postdissolution processes. Therefore, we also consider several variables that capture postdissolution processes in parts of the analysis. These variables include logged household income, the number of children below 18 in the household (categorical), self-rated health (5-point scale with lower value indicating better health), and dummy variables indicating being employed, the presence of a child below the age of 10, whether the respondent lives at the same address as in the last wave, and whether the respondent has a new partner.

Analytical Strategy

We start our analysis by presenting mean and median wealth by partnership status for women and men separately. Descriptive results are weighted with the cross-sectional household weights provided in the SOEP. Second, we estimate individual fixed effects models to estimate differences in wealth before and after union dissolution:

$$Y_{it} = D_{it}\gamma + X_{it}\beta + \alpha_i + v_{it},$$

where Y_{it} is per capita wealth of individual i in year t . D_{it} is a time-varying indicator of whether the individual experienced union dissolution after 2002 but before t . X is a vector of control variables, α_i is the unobserved time-invariant individual component, and v_{it} is an error term. This specific setup allows us to estimate differences between pre- and postdissolution wealth for individuals who separated.

It is important to note that the goal of our analysis is not to identify the causal effect of dissolution on wealth. This identification is, for instance, hampered by other time-varying characteristics that can determine how much wealth changes from wave to wave. Instead, our primary goal is to descriptively examine gender differences in how wealth changes and is split after dissolution. For all analyses, we adjust standard errors for clustering within individuals.

RESULTS

Descriptive Results

Table 2 describes individuals' average characteristics for the waves they were in a union. Averages were calculated separately by gender

Table 2. Descriptive Statistics of Individuals in Intact Unions (Including Predissolution Waves)

	Cohabiting unions		Marriage	
	Men	Women	Men	Women
Median household wealth	17,746	15,324	57,371	56,719
Mean household wealth	66,934	65,879	112,916	112,664
Mean household housing wealth	27,629	26,480	61,008	62,110
Mean household financial wealth	12,243	12,087	14,719	14,779
Median individual wealth	21,618	12,009	73,853	51,577
Mean individual wealth	97,912	66,286	151,012	107,161
Mean individual housing wealth	35,213	30,726	74,306	62,761
Mean Individual Financial Wealth	17,626	12,858	19,067	12,659
Mean age	46.0	43.8	56.1	53.7
Mean logged household income	9.5	9.5	8.2	8.0
Share employed	0.73	0.69	0.58	0.43
Mean number of children below age 18	0.4	0.4	0.5	0.5
Share with a child below age 10	0.18	0.20	0.18	0.18
Average self-rated health	2.5	2.5	2.7	2.7
Union duration in years	8.7	8.3	27.5	27.3
N	1,712	1,964	20,056	21,134

and marital status. Median per capita household wealth was lower for cohabiting men and women as compared to married individuals, primarily due to differences in housing wealth. Housing wealth was the most important component of wealth for all groups of individuals. Cohabiting individuals were in their mid-40s on average, whereas married individuals were closer to retirement age, which was also visible in their lower levels of household income and employment. Cohabiting unions were intact for less time than marriages in our sample.

Figure 1 compares median household wealth of individuals in intact unions to individuals' median wealth after union dissolution (among those who experienced the event). Individuals who experienced a union dissolution had less household wealth than those who did not (yet). This pattern was observed for all groups considered but differences between the married and formerly married were greater than differences in wealth between the cohabiting and the formerly cohabiting. Union dissolution was negatively associated with wealth for men and women alike. These numbers did not account for predissolution levels of wealth, were not yet transformed to wealth ranks, and were not adjusted for necessary controls. To estimate how much household wealth individuals lose following dissolution, we turned to multivariable results explaining

FIGURE 1. MEDIAN PER CAPITA WEALTH BY UNION STATUS.



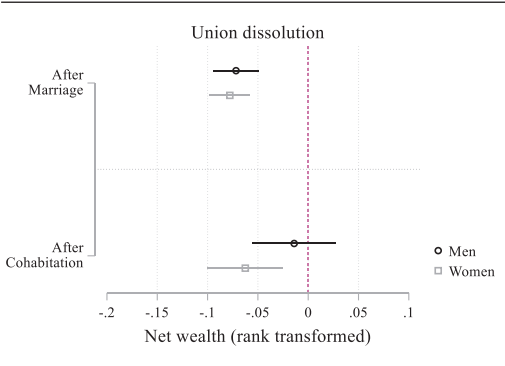
Note. Dissolution is separation from cohabiting union or marriage since the first wave of observation but before the year of measurement. No dissolution includes individuals who never separated. Marital status indicates status when the union dissolved. Bars indicate 95% confidence intervals.

changes in the wealth rank among individuals across time.

Multivariable Results

We started by estimating how much wealth changes following union dissolution for the mvarious groups considered. Figure 2 shows the coefficients for having experienced a union

FIGURE 2. EFFECT OF SEPARATION ON PER CAPITA WEALTH RANK BY UNION STATUS AND GENDER.



Note. Coefficients from individual fixed effects models indicating the difference between pre-separation and post-separation per capita household. Separate models ran by union status and gender. Bars indicate 95% confidence intervals.

dissolution from individual-level fixed effects models explaining per capita household wealth (estimated separately for each of the four groups defined by gender and marital status). The figure shows that dissolution from marriage had a negative and statistically significant effect on per capita household wealth for both men and women. Individuals who separated from marriage were estimated to go down 7 to 8 points in the household wealth distribution following union dissolution. Results differed for the dissolution of cohabiting unions. Women experienced average drops in per capita household wealth that were similar to those experienced by women who left a marriage, but the effect was slightly smaller (around 6 percentage points). Men's position in the household wealth distribution appeared unchanged after leaving a cohabiting union. The effect size was close to 0, but the confidence interval ranged from -0.06 to 0.03 . The difference in wealth losses between cohabiting men and women was statistically significant ($p = .034$ in a pooled model interacting gender with separation; available upon request).

Our results therewith provide evidence that there are gender differences in how household wealth changes after the dissolution of cohabitation. Even though we did not find gender differences in how wealth was split between formerly married partners, results were too imprecise to conclude that gender differences are smaller after divorce than after the

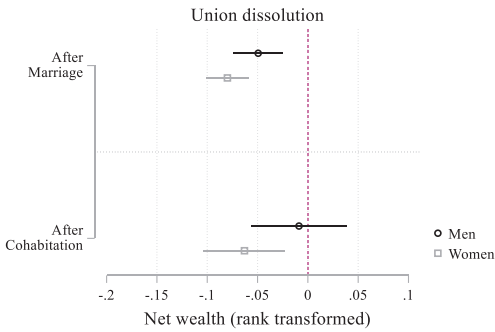
dissolution of cohabiting unions. Tests of differences in how effects vary by gender after the dissolution of cohabitation and marriage were not statistically significant (i.e., testing whether the interaction effect between gender and separation for the married sample is statistically significantly different from the same interaction effect for the cohabiting sample gave a p -value of .18; Paternoster, Brame, Mazerolle, & Piquero, 1998).

Determinants of Gender Differences in Wealth Changes Following Union Dissolution

The second goal of our analysis was to understand to what extent our results reflect how wealth was divided at union dissolution and to what extent they reflect postdissolution processes. To this end, Figure 3 presents results that are equivalent to Figure 2 but which accounted for observed postdissolution processes including employment, the presence of (young) children in the household, re-partnering, having moved homes, log household income, and self-rated health. Note that the inclusion of controls for re-partnering implies that the numbers presented in Figure 3 indicate wealth losses among those who did no re-partner. We considered the remaining effects after controlling for these processes to give an estimate of how wealth was divided between partners after dissolution.

Including postdissolution factors barely changed results for the cohabiting sample. This suggests that gender differences in how wealth changed after the dissolution of cohabiting unions reflect an unequal division of household wealth, rather than gender differences in post-dissolution processes. For the marriage sample, wealth losses became slightly less pronounced for men in this specification accounting for postdissolution processes. In contrast, women's losses in wealth were slightly more pronounced. Additional analysis showed how the inclusion of re-partnering as a control variable is responsible for these small differences between Figures 2 and 3. Re-partnering was associated with higher household wealth for women, but with slightly lower per capita household wealth for men (the p -value of the interaction effect between gender and re-partnering in a pooled model explaining per capita wealth for the marriage sample was .04; available upon request).

FIGURE 3. EFFECT OF SEPARATION ON PER CAPITA WEALTH RANK BY UNION STATUS AND GENDER; CONTROLLING FOR VARIABLES CAPTURING ECONOMIC NEED.

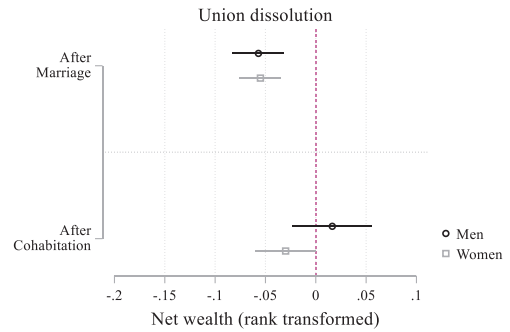


Note: Coefficients from individual fixed effects models indicating the difference between preseparation and postseparation per capita household. Separate models ran by union status and gender. Controlled for employment, presence of (young) children in the household, re-partnering, having moved homes, log household income and self-rated health. Bars indicate 95% confidence intervals.

Hence, the results suggest that gender differences in how wealth changes following the dissolution of cohabiting unions were not created by postdissolution processes. The main alternative reason is that wealth has been divided unequally after the dissolution of cohabiting unions. To further investigate this possibility, we looked at changes in individual wealth rather than per capita household wealth. Married women might be entitled to important parts of their partners' individual wealth. In contrast, formerly cohabiting women are not legally entitled to parts of their partners' individual wealth, and losses in household wealth could, in that case, reflect gender differences in individual wealth that were already present before union dissolution. If this holds, gender differences in wealth losses after the dissolution of cohabitation should be less pronounced in terms of individual wealth than in terms of household wealth.

Figure 4 shows the equivalent of Figure 3 once looking at individual-level wealth. In the case of marriage, formerly married men and women lost similar amounts of individual wealth following divorce (even though losses in individual wealth were slightly less pronounced than losses in household wealth for formerly married women). In the case of cohabitation,

FIGURE 4. EFFECT OF SEPARATION ON INDIVIDUAL WEALTH RANK BY UNION STATUS AND GENDER; CONTROLLING FOR VARIABLES CAPTURING ECONOMIC NEED.

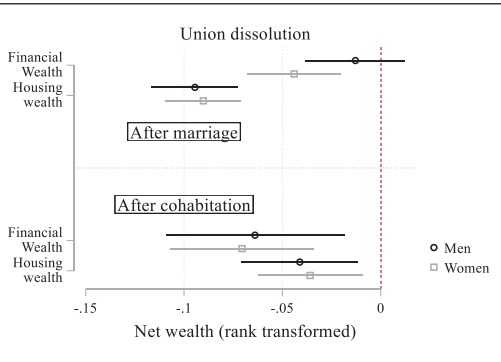


Note: Coefficients from individual fixed effects models indicating difference between preseparation and postseparation individual wealth. Separate models ran by union status and gender. Bars indicate 95% confidence intervals. Controlled for employment, presence of (young) children in the household, re-partnering, having moved homes, log household income and self-rated health.

we indeed observed that losses in individual wealth were less pronounced than losses in household wealth for formerly cohabiting women. This indicates that formerly cohabiting women's losses in household wealth reflect gender differences in individual wealth that already existed before union dissolution. This result was expected based on the observation that property regimes do not cover the dissolution of cohabiting unions. If these results reflect preexisting gender differences in individual wealth, this also implies that some of the gender differences in standard of living might have been already present before union dissolution if individual wealth was not shared between partners (Cantillon, 2013).

As a final step to better understand our results, we looked at changes in specific wealth components. Differences in wealth composition might explain why, in our sample, gender differences in wealth losses were more pronounced after the dissolution of cohabiting unions as compared to marriages. Figure 5 indeed shows that formerly married individuals primarily lost in terms of housing wealth, whereas losses in financial wealth were more pronounced for formerly cohabiting individuals. Changes in financial wealth appeared less gender-equal than changes in housing wealth, which might indeed suggest

FIGURE 5. EFFECT OF SEPARATION ON HOUSING AND FINANCIAL WEALTH RANK BY UNION STATUS AND GENDER.



Note. Coefficients from individual fixed effects models indicating difference between preseparation and postseparation per capita household wealth. Separate models ran by union status and gender. Bars indicate 95% confidence intervals.

that differences in housing wealth drove much of our results. However, confidence intervals are too large to come to firm conclusions in this regard.

Robustness Checks

We ran various additional models to test the robustness of our results. First, results were robust to using IHS-transformed wealth instead of wealth ranks (Appendix S1, Figure S1; even though the effect for formerly cohabiting women turned statistically insignificant), using quantile-regression to estimate changes in median wealth (Appendix S1, Figure S2; also here the effect for formerly cohabiting women turned statistically insignificant), and restricting the analysis to legal divorces rather than dissolutions from marriage in general (Appendix S1, Figure S3). Second, we adopted an alternative strategy to estimate how wealth is split between former partners after dissolution. Instead of controlling for postdissolution processes, the wealth rank of individuals was measured based on their per capita wealth before separation and based on individual wealth following separation (i.e., based on legal ownership of wealth). In this manner, postseparation household composition changes, such as the entrance of a new partner, have less of an impact on estimates. These results, displayed in Appendix S1, Figure S4 and Table S1, showed how women's wealth

losses following the dissolution of cohabitation are greater than men's. Gender differences in wealth losses following dissolution from cohabitation were statistically significant under this specification. There were no gender differences in wealth losses after marriage. Third, we estimated the effects of dissolution depending on the years between the dissolution event and the measurement of postdissolution wealth, as displayed in Figures 6A and 6B. Due to small sample sizes, no statistically significant differences emerged according to the time since dissolution. At the same time, gender differences in wealth losses following the dissolution of cohabitation appeared to be present regardless of the time elapsed since union dissolution. Similarly, we aimed to account for the fact that dissolved unions differ in the amount of time they lasted, which might determine the amount of wealth accumulated during the relationship. Gender differences were greater after cohabiting unions of longer duration, but results were too imprecise to come to conclusions in this regard (Appendix S1, Figure S5).

Fourth, wealth losses might differ by age due to the systematically different levels of wealth during various life stages. To scrutinize this possibility, we ran additional models interacting a categorical variable of age with separation; results are displayed in Appendix S1, Table S2. Not surprisingly, we found that young formerly married individuals (aged 18–30), who had little wealth to begin with, lost relatively little wealth after dissolution. At the same time, we found that, regardless of their age, formerly cohabiting women lost wealth and formerly cohabiting men did not.

Gender differences among formerly married individuals (favoring men) were visible for young individuals. This might reflect the little time such couples will have had to jointly accumulate wealth (gender differences in how wealth changed therefore primarily reflect differences in premarriage wealth).

Finally, we re-ran the analysis looking at assets and debts separately. This analysis, displayed in Appendix S1, Figure S6, showed that both assets and debts are reduced following union dissolution (except for former cohabiting men who do not lose either). This probably reflects a pattern where assets are sold after union dissolution resulting in a simultaneous reduction of assets and debt. This pattern was

FIGURE 6. (A) EFFECT OF SEPARATION FROM MARRIAGE ON PER CAPITA WEALTH RANK DEPENDING ON TIME BETWEEN SEPARATION AND CURRENT WEALTH MEASUREMENT, BY GENDER. (B) EFFECT OF SEPARATION FROM COHABITATION ON PER CAPITA WEALTH RANK DEPENDING ON TIME BETWEEN SEPARATION AND CURRENT WEALTH MEASUREMENT, BY GENDER.



Note: Whiskers indicate 95% confidence intervals. Coefficients from individual fixed effects models indicating difference between pre-separation and post-separation wealth. Separate models ran by union status and gender. Separation variable is split according to the time between interview and the wave of reference.

similar for formerly married men and women as well as for formerly cohabiting women.

DISCUSSION

In this study, we aimed to contribute to the literature on gender differences in the economic consequences of union dissolution by introducing wealth into the debate. Previous studies on the United States showed that divorce is related to considerably lower levels of wealth (Addo & Lichter, 2013; Painter et al., 2015), with mixed results regarding gender differences. No previous study examined what happens after the dissolution of cohabiting unions. The first

aim of our analysis was to provide longitudinal evidence on gender differences in how household wealth changes after the dissolution of marriage and cohabitation in Germany.

In contrast to what has been found in earlier research on the United States (Zagorsky, 2005), we expected gender differences in how wealth is divided following the dissolution of marriage in Germany. This expectation was formulated because of the default marital property regime in place, which only prescribes dividing wealth that is accumulated during marriage after divorce. However, our estimates of how wealth was divided between former partners showed few gender differences after the dissolution of marriage: both men and women lost similar amounts of wealth after the dissolution of marriage. The limited coverage of marital property regimes in Germany might therefore not be as consequential as thought. One possible explanation is that most wealth was accumulated during marriage, and that premarriage wealth accounted for a relatively small share of all household wealth divided after dissolution.

We found more support for the expectation that there are gender differences in how wealth changes after the dissolution of cohabiting unions. Cohabiting men's per capita wealth rank differed little across predissolution and post-dissolution observations (but standard errors were large), whereas women lost considerably in terms of household wealth following the dissolution of a cohabiting union. These gender differences were statistically significant. This finding suggests that the dissolution of cohabiting unions has the potential to contribute to gender inequality in household wealth. The second main goal of our analysis was to explain why gender differences in wealth changes arise after the dissolution of cohabiting unions but not after divorce. To this end, we investigated to what extent results reflect the division of wealth between partners at the time of union dissolution. Because our analysis relied on estimating changes in wealth between survey waves, these estimates were also influenced by postdissolution processes that affect changes in wealth such as re-partnering, changes in employment and differences in consumption or need. Therefore, we accounted for postdissolution processes in the second part of our analysis to get an estimate of how wealth was split among former partners. Gender differences in wealth after the dissolution of cohabiting unions persisted also once

accounting for postdissolution processes (such as re-partnering). This suggests that an unequal division of wealth at the time of separation led to gender differences in household wealth after the dissolution of cohabiting unions.

Besides documenting gender differences, our results also provided insight into the general effects of union dissolution on wealth. The lack of wealth losses observed for men after the dissolution of cohabitation raises the question why, overall, the dissolution of cohabitation appears to destroy less wealth than the dissolution of marriage. Possible explanations include direct legal costs related to divorce, but also differences in predissolution levels of wealth. Given that cohabiting couples owned less wealth than married couples before dissolution, they had less to lose from a separation. Union dissolution might have driven down wealth to relatively low levels regardless of previous union status (See also Figure 1), which implies larger losses for the previously married. In general, postdissolution processes explained little of the wealth losses observed, which suggests that there was an instant cost that had to be borne after couples split up. Such instant costs could be related to the dissolution of a household (e.g., selling a home under time pressure) and the establishment of two new separate households, but future research is required to better understand the exact mechanisms at play.

We would like to highlight two important limitations of our analysis. First, a major obstacle that we encountered throughout our analysis was the imprecision of our results due to the relatively small sample sizes employed. Statistical significance of results varied across conclusions drawn. For instance, our estimate of gender differences in how wealth changes after the dissolution of cohabiting unions was statistically significant (i.e. the interaction effect between gender and separation). However, statistical significance was too low to claim that these gender differences are greater following the dissolution of cohabiting unions as compared to the dissolution of marriages (i.e. the difference in interaction effects across the cohabitation and marriage samples was not significant). Future research is therefore needed to further corroborate our findings. Unfortunately, there are very few datasets available that fulfill the data requirements of this type of analysis. Studies using administrative data might be an important step forward in answering the question of

whether wealth is divided less equally following separation from cohabiting unions as compared to divorce as long as they allow to identify cohabiting unions.

Another major limitation of our study relates to our second conclusion on the reasons why gender differences emerge after the dissolution of cohabiting unions. We argued that our results reflected an unequal division of wealth at the time of separation, but we did not directly collect information on how wealth is split following union dissolution. Instead, we measured per capita wealth at different points in time and employed various strategies to account for postseparation processes. Even though accounting for such processes led to stronger results, directly measuring how wealth is split would be a valuable next step that future research could take. One way to do this would be to directly ask respondents about the division of property if they experienced a union dissolution.

The indirect measurement of how wealth was split between former partners opens the door to various explanations as to why gender differences in wealth losses are more pronounced following the dissolution of cohabiting unions as compared to the ending of marriages. In our article, we suggested that differences in laws governing marriage and cohabiting unions lead to a more gender unequal division of household wealth when the latter type of unions dissolves. We found some suggestive evidence in support of that argument by showing that gender differences in individual wealth changes were less pronounced than changes in household wealth for formerly cohabiting women. An alternative explanation is that cohabiting unions systematically differed from marriages on characteristics that we did not observe in our study. One possibility is that gender differences in wealth were already present before union formation. In other words, gender differences in individual wealth were greater for cohabiting couples as compared to married couples already before the couple moved in together. If this is the case, women would leave cohabiting relationships with less wealth after union dissolution even in the hypothetical situation that the German marital property regime would apply to cohabiting couples. However, previous research has shown that gender differences in individual wealth are similar across cohabiting and married couples, and do not change once transiting from

cohabitation to marriage (Grabka et al., 2015; Kapelle & Lersch, 2020).

Another possibility is that cohabiting unions had a shorter duration than marriages that dissolved. Wealth accumulated before union formation will, in that case, take on a larger share of total household wealth. If wealth brought into a relationship is split less evenly than wealth accumulated during the union (as prescribed for marriages by the standard marital property regime in Germany), this will lead to a less equal splitting of household wealth following the dissolution of cohabiting unions. Even though gender differences in wealth changes increased with the duration of cohabiting unions at the time of dissolution (Appendix S1, Figure S5), sample sizes were too small to discard this possibility. More in general, it has to be noted that it is unclear whether the availability of the option to cohabit *per se* makes union dissolution a less gender equal process in terms of how wealth is split. Even in the absence of the option of cohabitation, couples might opt for a prenuptial agreement, which might lead to gender differences in wealth changes after divorce too. Future research can further investigate whether differences in legal frameworks applying to cohabiting unions and marriages are indeed responsible for gender differences in wealth losses after union dissolution.

Nonetheless, we believe that this paper introduces a novel and important question to the research on the gendered economic consequences of union dissolution. In a context where marriage is the norm (and prenuptial agreements rare), gender differences in household wealth changes after dissolution might receive little attention because most wealth is split evenly after divorce. However, we argue that how wealth is split following the dissolution of cohabiting unions might amplify gender differences in the economic consequences of separations. If cohabitation, but not marriage, is related to gender differences in how wealth is split after union dissolution, and if cohabitation is becoming ever more common compared to marriage, union dissolution might become an ever more influential driver of gender differences in wealth. These considerations provoke the question of what policy measures might be available to reduce gender differences in wealth changes following union dissolution, as well as the impact of union dissolution on wealth more generally.

Note

Diederik Boertien acknowledges funding from the Beatriu de Pinós program of the Generalitat de Catalunya (2016-BP-00121), the EQUALIZE project (ERC-2014-STG-grant agreement No 637768), and the GLOBFAM project (RTI2018-096730-B-I00). Philipp M. Lersch's research was funded by the Support Network for Interdisciplinary Social Policy Research (FIS) of the German Federal Ministry of Labor and Social Affairs and by the German Research Foundation (DFG), grant number LE 3612/2-1. We would like to thank those who provided feedback on our paper at the Population Association of America Annual Meeting 2019 in Austin. Open access funding enabled and organized by Projekt DEAL.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1: Supporting information.

REFERENCES

- Addo, F. R., & Lichter, D. T. (2013). Marriage, marital history, and black–white wealth differentials among older women. *Journal of Marriage and Family*, 75(2), 342–362. <https://doi.org/10.1111/jomf.12007>
- Andreß, H. J., Borgloh, B., Bröckel, M., Giesselmann, M., & Hummelsheim, D. (2006). The economic consequences of partnership dissolution—A comparative analysis of panel studies from Belgium, Germany, Great Britain, Italy, and Sweden. *European Sociological Review*, 22(5), 533–560. <https://doi.org/10.1093/esr/jcl012>
- Bennett, F. (2013). Researching within-household distribution: Overview, developments, debates, and methodological challenges. *Journal of Marriage and Family*, 75(3), 582–597. <https://doi.org/10.1111/jomf.12020>
- Cantillon, S. (2013). Measuring differences in living standards within households. *Journal of Marriage and Family*, 75(3), 598–610. <https://doi.org/10.1111/jomf.12023>
- Di Nallo, A. (2019). Gender gap in repartnering: The role of parental status and custodial arrangements. *Journal of Marriage and Family*, 81(1), 59–78. <https://doi.org/10.1111/jomf.12527>
- DiPrete, T. A., & McManus, P. A. (2000). Family change, employment transitions, and the welfare state: Household income dynamics in the United States and Germany. *American Sociological Review*, 65(3), 343–370. <https://doi.org/10.2307/2657461>
- Frémeaux, N., & Leturcq, M. (2018). Prenuptial agreements and matrimonial property regimes in France, 1855–2010. *Explorations in Economic History*, 68, 132–142. <https://doi.org/10.1016/j.eeh.2017.10.004>

- Friedline, T., Masa, R. D., & Chowa, G. A. (2015). Transforming wealth: Using the inverse hyperbolic sine (IHS) and splines to predict youth's math achievement. *Social Science Research, 49*, 264–287. <https://doi.org/10.1016/j.ssresearch.2014.08.018>
- Goebel, J., Grabka, M. M., Liebig, S., Kroh, M., Richter, D., Schröder, C., & Schupp, J. (2019). The German socio-economic panel (SOEP). *Jahrbucher fur Nationalokonomie und Statistik, 239*, 345–360. <https://doi.org/10.1515/jbnst-2018-0022>
- Grabka, M. M., Marcus, J., & Sierminska, E. (2015). Wealth distribution within couples. *Review of Economics of the Household, 13*(3), 459–486. <https://doi.org/10.1007/s11150-013-9229-2>
- Halpern-Manners, A., Warren, J. R., Raymo, J. M., & Nicholson, D. A. (2015). The impact of work and family life histories on economic well-being at older ages. *Social Forces, 93*, 1369–1396. <https://doi.org/10.1093/sf/sov005>
- Hiekel, N., Liefbroer, A. C., & Poortman, A. R. (2014). Income pooling strategies among cohabiting and married couples: A comparative perspective. *Demographic Research, 30*, 1527–1560. <https://doi.org/10.4054/DemRes.2014.30.55>
- Kapelle, N., & Lersch, P. M. (2020). The accumulation of wealth in marriage. Over-time change and within-couple inequalities. *European Sociological Review, 36*(1). <https://doi.org/10.1093/esr/jcaa006>
- Killewald, A., Pfeffer, F. T., & Schachner, J. N. (2017). Wealth inequality and accumulation. *Annual Review of Sociology, 43*, 379–404. <https://doi.org/10.1146/annurev-soc-060116-053331>
- Lauer, S. R., & Yodanis, C. (2011). Individualized marriage and the integration of resources. *Journal of Marriage and Family, 73*(3), 669–683. <https://doi.org/10.1111/j.1741-3737.2011.00836.x>
- Lersch, P. M. (2017). The marriage wealth premium revisited: Gender disparities and within-individual changes in personal wealth in Germany. *Demography, 54*(3), 961–983. <https://doi.org/10.1007/s13524-017-0572-4>
- McManus, P. A., & DiPrete, T. A. (2001). Losers and winners: The financial consequences of separation and divorce for men. *American Sociological Review, 66*(2), 246–268. <https://doi.org/10.2307/2657417>
- Painter, M., Frech, A., & Williams, K. (2015). Nonmarital fertility, union history, and women's wealth. *Demography, 52*(1), 153–182. <https://doi.org/10.1007/s13524-014-0367-9>
- Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology, 36*(4), 859–866. <https://doi.org/10.1111/j.1745-9125.1998.tb01268.x>
- Perelli-Harris, B., & Sánchez Gassen, N. (2012). How similar are cohabitation and marriage? Legal approaches to cohabitation across Western Europe. *Population and Development Review, 38*(3), 435–467. <https://doi.org/10.1111/j.1728-4457.2012.00511.x>
- Rainer, H. (2007). Should we write prenuptial contracts? *European Economic Review, 51*(2), 337–363. <https://doi.org/10.1016/j.eurocorev.2006.02.001>
- Sanders, A. (2013). Cohabitants in private law: Trust, frustration and unjust enrichment in England, Germany and Canada. *International & Comparative Law Quarterly, 62*(3), 629–665.
- Sierminska, E. M., Frick, J. R., & Grabka, M. M. (2010). Examining the gender wealth gap. *Oxford Economic Papers, 62*, 669–690. <https://doi.org/10.1093/oepp/gp007>
- Smith, I. (2002). 12 European divorce laws, divorce rates, and their consequences. In A. W. Dnes & R. Rowthorn (Eds.), *The law and economics of marriage and divorce*. Cambridge: Cambridge University Press.
- Smock, P. J. (1994). Gender and the short-run economic consequences of marital disruption. *Social Forces, 73*(1), 243–262. <https://doi.org/10.1093/sf/73.1.243>
- Tach, L. M., & Eads, A. (2015). Trends in the economic consequences of marital and cohabitation dissolution in the United States. *Demography, 52*(2), 401–432. <https://doi.org/10.1007/s13524-015-0374-5>
- Uunk, W. (2004). The economic consequences of divorce for women in the European Union: The impact of welfare state arrangements. *European Journal of Population, 20*(3), 251–285. <https://doi.org/10.1007/s10680-004-1694-0>
- Van Damme, M., Kalmijn, M., & Uunk, W. (2008). The employment of separated women in Europe: Individual and institutional determinants. *European Sociological Review, 25*(2), 183–197. <https://doi.org/10.1093/esr/jcn042>
- Vespa, J., & Painter, M. A. (2011). Cohabitation history, marriage, and wealth accumulation. *Demography, 48*(3), 983–1004. <https://doi.org/10.1007/s13524-011-0043-2>
- Voena, A. (2015). Yours, mine, and ours: Do divorce laws affect the intertemporal behavior of married couples? *American Economic Review, 105*(8), 2295–2332. <https://doi.org/10.1257/aer.20120234>
- Wilmoth, J., & Koso, G. (2002). Does marital history matter? Marital status and wealth outcomes among preretirement adults. *Journal of Marriage and Family, 64*(1), 254–268. <https://doi.org/10.1111/j.1741-3737.2002.00254.x>
- Zagorsky, J. L. (2005). Marriage and divorce's impact on wealth. *Journal of Sociology, 41*(4), 406–424. <https://doi.org/10.1177/1440783305058478>