

Repartnering of women in the US: the role of economic hardship and vulnerability

Alessandro Di Nallo

Université de Lausanne

Katya Ivanova

University of Amsterdam

Nicoletta Balbo

Bocconi University

We examine how women's economic conditions are related to their behaviours on the repartnering market in the United States. Using data from the National Survey of Family Growth (NSFG), we assess whether women's socio-economic position is predictive of the probability of repartnering. Second, we examine whether any potential inequalities in repartnering are more or less pronounced for mothers than for childless women. Finally, we study how the possible accumulation of disadvantages on the mating market (i.e., lower socio-economic position and motherhood) affects individual repartnering behaviours under conditions of economic strain (i.e., the Great Recession of the late 2000s).

Introduction

This paper contributes to the understanding of repartnering of women in the United States. We study the patterns of repartnering by socio-economic status (SES) after the dissolution of a cohabiting or marital union. In doing so, we are particularly interested in investigating whether patterns of repartnering for mothers and non-mothers (i.e., the so-called mother changes during phases of economic hardship for women with different SES).

There are relevant implications for investigating the process of repartnering. According to McLanahan (2004), in the US higher-educated women tend to have *gaining* trajectories, with later childbearing, maternal employment, and lower risk of union dissolution, while women with fewest resources tend to pursue *losing* trajectories with early, non-marital childbearing and higher risk of separation. There has thus been a divergence in the opportunities for these groups of women, and an increasing disparity of life chances for their children. While a first union increases the economic wellbeing of the couple thanks to partners' income-pooling (Sweeney, 2002), a separation might have a harsh influence on economic wellbeing of both ex-partners (Amato, 2010). A divorce, or a separation, "is a stratifying life event" (Shafer, 2013), since it hits more hardily the individuals with

fewest resources, and influences women's well-being more negatively than men's (McManus & Di Prete, 2001). Compared to men, women have on average less work experience and earnings, but bear more caregiving responsibilities after a union dissolution (Smock et al., 1999). The impossibility of relying on a partner's income, along with the financial drain caused by children's maintenance, is likely to take a toll on low-income women. Conversely, a new union tends to improve physical health and psychological wellbeing (Amato, 2010; Aassve & Tavares, 2013) and could be beneficial especially for economically more disadvantaged women (Dewilde & Uunk, 2008). Therefore, understanding the repartnering behaviours of vulnerable women (e.g., low SES mothers) is particularly important.

Existing research on re-partnering has highlighted several factors involved in new union formation: age, gender, personality, socio-economic status, and parental status determine why some categories of separated individuals are more likely to find a new partner than others. Need, attractiveness, and opportunity are the three most cited channels that influence the patterns of repartnering after a union dissolution (de Graaf & Kalmijn, 2003). Need, in particular, is usually deemed as the spur to overcome singlehood, achieve companionship (Amato, 2000), and escape from economic hardship (Jansen et al., 2009), especially for women (Poortman, 2010).

So far, little investigation in the US is devoted to understanding whether low and high SES women have systematically different patterns of repartnering, and whether these vary according to their parental status, and the economic cycle. In this article, we study repartnering dynamics for women after a marital or cohabiting union dissolution in the United States using data from the National Survey of Family Growth. In our work, we address the following questions: 1) What is the influence of women's SES and motherhood status on repartnering? 2) Does the magnitude of the potential "motherhood gap" in repartnering vary across SES groups? 3) Do conditions of economic uncertainty exacerbate or close the potential motherhood gap in repartnering for the different SES groups?

We intend to improve on the existing literature in different ways. First, we do not focus on repartnering after the dissolution of a *marital* union only, but rather extend our focus to women who separate after a twelve-month or longer union. In other words, we do not condition our sample of interest on first being selected into marriage. Second, in studying the repartnering, we specifically focus on the interplay between parental status and socio-economic conditions, both at the micro-level, by looking at women with different education, as well as the macro-level, by focusing on the economic cycle. In this way, we aim at uncovering whether specific conditions of "need" – for instance, the separated woman having dependent children or the negative economic cycle – change the patterns of repartnering. Low SES mothers might be more in "need" of repartnering when taking

on the post-separation custody of their children compared to their high SES counterparts and to childless women. Thereby, they may prefer to speed up repartnering to make up for the negative economic consequences of a union dissolution (Poortman, 2000). Nevertheless, they might not be as likely as their more advantaged counterparts to find a new partner because they could be perceived as less economically independent and, thus, less “attractive”. By the same token, economic turmoil might worsen women’s economic condition and lead those with a low SES to look more actively for a partner that might relieve their economic conditions. Conversely, the negative economic conjuncture could further decrease low-SES women’s chances of repartnering by reducing their attractiveness to potential partners.

Background

The literature on repartnering has used diverse measures of SES, encompassing mainly educational attainment, income, and employment status. Previous research of first marriage consistently found a privileged position in repartnering for socio-economically advantaged individuals (e.g., Sweeney, 2002). However, research has found mixed results about the association between education/SES and repartnering for women in second and later marriages (unions).

Adapting the framework of labour market to remarriage market, Oppenheimer (1988) views individuals looking for a (new) partner in the same vein as job seekers in search for a job position: individuals find a partner when their attributes exceed the minimal accepted standards. In other words, the likelihood and timing of marriage are determined by each partner’s quality. Previous research (e.g., Shafer & Qian, 2010) highlighted that many low-SES women marry quickly because they perceive the benefits of a rapid marital deal in opposition to the costs of an extended search. On the contrary, high SES individuals tend to linger in the search process (Shafer & James, 2013).

However, distinct mechanisms of mating apply to first and second/higher-order unions, thus changing the value of SES in the remarriage market compared to its values in first marriage market. In general, the repartnering seems more unfavorable to women than to men because of unbalanced gender ratios at older ages and cultural norms against unions where women have higher status than their husbands (de Graaf & Kalmijn, 2003). Women are also affected by men’s preference for never married, childless partners – even if they are divorced (Goldscheider et al., 2009) so that older women are more likely to remaining single because of (older) divorced men’s preferences for never-married, childless women.

There are SES difference in remarriage compared to first marriage. In general, the association between SES and remarriage (unlike first marriage) seems to be non-existent for women (Shafer, 2013). However, no clear relationship is shown when it comes to repartnering in general. Lower SES

separated women might repartner more quickly compared to their high SES counterparts because of the previously outlined “need” argument; in other words, lower SES women cannot afford to protract their search process whereas higher SES women can either entirely forego repartnering or spend more time searching for an appropriate partner (Sweeney, 1997).

Parenthood has been shown to be the key factor for intra-gender (mothers vs. childless women) and inter-gender (mothers vs. fathers) differentials (Glick, 1984; Goldscheider & Sassler, 2006; de Graaf and Kalmijn 2003; Poortman 2007; Wu and Schimmele 2005, Lampard & Peggs, 1999) in repartnering. Mothers are significantly less likely to repartner than childless women (Bernhardt & Goldscheider, 2002; de Graaf & Kalmijn, 2003; Goldscheider & Sassler, 2006; Steele et al., 2006; Wu & Schimmele, 2005; Beaujouan, 2012; Lampard & Peggs, 1999). Also, women with dependent children have lower odds of first marriage (e.g. Bennett, Bloom and Miller, 1995), remarriage (e.g. Wu & Schimmele, 2005) and cohabitation (Desrosiers and Le Bourdais, 1993). This evidence is more apparent for women with a large number of children and with young children (Ivanova et al., 2013; Poortman, 2007) and for women with non-marital first birth (Upchurch, Lillard & Panis, 1993).

The presence of children implies a financial and a time constraint that shape the opportunities and needs to meet a new partner (Goldscheider & Sassler, 2006). Despite the rise in joint custody arrangements in the US (Cancian et al., 2014), women are still the primary caregivers to children after a separation and bear the main consequences of child custody on repartnering (Bjarnason & Arnarsson, 2011). Further, women often face a fall in their economic condition after a separation (Andreß et al., 2006, Jansen et al., 2009; Poortman, 2010). Therefore, low income mothers might have a much stronger incentive to repartner vis-à-vis their high-income counterparts.

In this study, we aim to integrate existing literature on motherhood and repartnering into the one on socio-economic status and repartnering, investigating how these two potential sources of vulnerability may jointly affect patterns of repartnering. We do so by examining the interplay between parental status and socio-economic conditions, both at the micro-level, by looking at women with different education, as well as the macro-level, by focusing on the effect of the Great Recession.

Data and methods

We draw data from three waves of the NSFG: the NSFG 2006-2010, the NSFG 2011-2013 and the NSFG 2013-15 containing information on women born in the USA, from 1961 and aged from 20 to 45 at the time of the interview.

We use discrete time event history analysis to model the process of re-partnering (Allison, 1982; Steele, 2008). As we are interested in the re-partnering of mothers and childless women, the

analytical sample is restricted to respondents who had at least a co-residential or marital union and had dissolved this union. The event of re-partnering is defined as the date of forming a common household with or marrying a new partner. Respondents who did not enter a new relationship are observed until the date of the interview and then censored.

We seek to answer the questions how women's SES and maternal status influence the probability of re-partnering with two specifications. In Model 1, we use an event history logistic regression for repeating events. After creating a person-month file, we run distinct models for women who separated in three equally-spaced time intervals: from January 1996 to December 2001, from January 2002 to December 2007 and from January 2008 to December 2013. Any spell of union dissolution starts in the month of the last union dissolution and ends with the formation of a new union or with a censored spell for those who have not experienced the event by the end of the observation period. All episodes of singlehood are nested within each individual (since women might break up more than once), which yields a two-level data structure. The multilevel (or random-effect) event history models adopted in this study were purposely developed for a hierarchical data structure (Steele, 2011). The hazard of making a transition to the new state can be defined as a two-level random effects logistic model:

$$r_{ijt} = \log \left(\frac{p_{ijt}}{1-p_{ijt}} \right) \quad (1)$$

where p_{ijt} is the probability that a transition occurs at time t during episode j for the individual i . The full model is union reformation is set as follows:

$$r_{ijt} = \alpha(t) + \theta_1 \mathbf{E}_i + \theta_2 \mathbf{M}_i + \boldsymbol{\beta} \mathbf{X}_{ijt} + u_i \quad (2)$$

where $\alpha_{ij}(t)$ is a function of time and consists of a linear and quadratic term capturing the duration of the single status after union dissolution; \mathbf{E}_i and \mathbf{M}_i are (a) an indicator of socio-economic outcome, represented by the highest educational attainment (1 = less than high school; 2 = high school; 3 = some college; 4 = 2-year degree; 5 = 4-year degree or higher) and (b) the parental status (being mother vs. childless); \mathbf{X}_{ijt} is a vector of time-varying and invariant covariates with a vector of coefficients $\boldsymbol{\beta}$; u_i captures individuals' random effects and are assumed to follow a normal distribution with zero mean and variance σ^2 . The model assumes that, conditional on u_i , the duration of episodes for the same individual are independent. We pay particular attention to a group of independent variables which are assumed to proxy for conditions of economic hardship and represent the dimensions of advantage/disadvantage.

In model 2, we adopt a biprobit model in which we jointly estimate the process of re-partnering and the preceding process of partnership dissolution. The biprobit allows us to capture the components of unobserved heterogeneity in the two equations of partnership separation and reformation and address the bias of the estimates in the first model. Women could self-select into the

repartnering market, because some characteristics, whether observed or unobserved, might be systematically associated with higher chances of partnership dissolution. For instance, maternal status and educational level are not randomly assigned across single women who broke up a union. Mothers are less likely to experience a separation with respect to childless women (e.g., Bellido et al. 2016), while high-educated women are less likely to incur in a divorce (Haäkönen & Dronkers, 2006) and, to some extent, in a separation (Matysiak et al., 2014).

Two equations estimate contemporarily the risk of union dissolution and the risk of partnership reformation for women who had a union dissolution in each of the three periods.

$$\begin{cases} S_{ijt} = \log\left(\frac{p^S_{ijt}}{1-p^S_{ijt}}\right) \\ R_{ijt} = \log\left(\frac{p^R_{ijt}}{1-p^R_{ijt}}\right) \end{cases} \quad (3)$$

The full model of union separation and reformation is defined as follows:

$$\begin{cases} S_{ijt} = \alpha^S(t) + \theta_1^S \mathbf{E}_i^S + \theta_2^S \mathbf{M}_i^S + \beta^S \mathbf{X}'_{ijt} + u_i^S \\ R_{ijt} = \alpha^R(t) + \theta_1^R \mathbf{E}_i^R + \theta_2^R \mathbf{M}_i^R + \beta^R \mathbf{X}'_{ijt} + u_i^R \end{cases} \quad (4)$$

where the sets of variables $\mathbf{X}'_{ijt}^{(r)}$ and $\mathbf{X}'_{ijt}^{(r)}$ differ for $r = \{S, R\}$ to satisfy the exclusion restriction conditions.

We set up a different design to answer the third research question about the role of economic uncertainty on the repartnering behavior across the dimensions of maternal status and SES. In a biprobit model equivalent to that previously employed, we study only women who experienced a partnership break-up before the outset of the Great Recession, which is conventionally set in December 2007 (according to Bureau of Labour Statistics). Thus, we rule out the economic crisis as a cause of *selection* into/out of the repartnering market. On the one hand, the sudden worsening economic conditions could have triggered the dissolution of some partnerships. On the other hand, the economic turmoil could have also spurred partners in shaky union to unite forces and pool resources to counteract a fall in income.

Model 3 is still a biprobit such as in the previous step, but it is stratified by three levels of educational groups. In this setting, the influence of the crisis is operationalized as a time-varying binary operator $C = \{0,1\}$, which is equal to 1 during the Big Recession (from December 2007 to December 2010; National Bureau of Economic Research, 2010), and 0 otherwise. This term is also interacted with the indicator of maternal status, to highlight a differential impact of the crisis on mothers with respect to childless women. Alternatively, we construct a “placebo test” with a categorical indicator $C = \{0,1,2\}$, which equals 2 during the post-crisis period. The value 2 is supposed to capture the post-crisis time trend and clearly isolate the impact of the Big Recession.

The full model thus becomes:

$$\begin{cases} S_{ijt}^e = \alpha^{S,e}(t) + \beta^{S,e} X'_{ijt} + u_i^{S,e} \\ R_{ijt}^e = \alpha^{R,e}(t) + \delta_1^{R,e} C_{ij} + \delta_2^{R,e} C_{it} * M_i + \beta^{R,e} X_{ijt} + u_i^{R,e} \end{cases} \quad (5)$$

where the sets of outcome are stratified by education e (1 = *high school or less*; 2 = *some college*; 3 = *college or higher education*). In further versions of this study, we intend to employ a time-varying measure such as the regional or nationwide unemployment rate or GDP growth alongside the binary indicator of the crisis.

In the analyses, we control for four characteristics of previous unions: the type of previous union (1 = *cohabitation*; 0 = *marriage*); the number of previous unions (1 = *two or more previous unions*; 0 = *one previous union*); the duration of the previous union: 0 = *0-1 year* (reference); 1 = *1-3 years*; 2 = *3-5 years*; 3 = *5-10 years*; 4 = *10+ years*. We also control for the age of the respondent with a linear and a quadratic term. To examine trends over time in relationship instability, I control for the logarithm of the year of separation (continuous variable, range: 1966-2010) such as in de Graaf & Kalmijn (2003). Research on the intergenerational association of family structure implies that individuals' union instability may echo their own childhood family disruptions (Amato, 1996; Liefbroer & Elzinga, 2012) or economic hardship (Kiernan, 1992). For this purpose, we use a dummy variable indicating whether parents were still a couple when the respondent was 16 (1 = *parents' dissolution*; 0 = *intact family*), and one indicator for the highest education of the mother (equivalent to the variable of the main respondent). Eventually, a five-category time invariant variable captures a respondent's self-reported ethnicity: 1 = *Hispanic* (reference); 2 = *Non-Hispanic White*; 3 = *Non-Hispanic Black*; 4 = *Non-Hispanic Other or Multiple Race*.

The sample in the first model specification amounts to more than 7,000 women who incur in at least one episode of union dissolution, with each women experiencing 1.42 separations/divorces up to the time of the interview.

Table 1. Descriptive statistics. Sample of women with at least one union break-up. Selected covariates.

Women	N	%
Experiencing a break-up	7,353	
Repartnering at least once	2,248	30.57
Number of spells of singlehood (average)	1.423	
Episodes x individuals	12,875	
Maternal status		
With some children, at least once	4,280	58.21
Always childless	3,073	41.79

Educational attainment		
Less than high school	1,192	16.21
High school	2,196	29.87
Some college	1,767	24.03
2-year college degree	746	10.15
4-year college degree/Graduate school	1,452	19.74

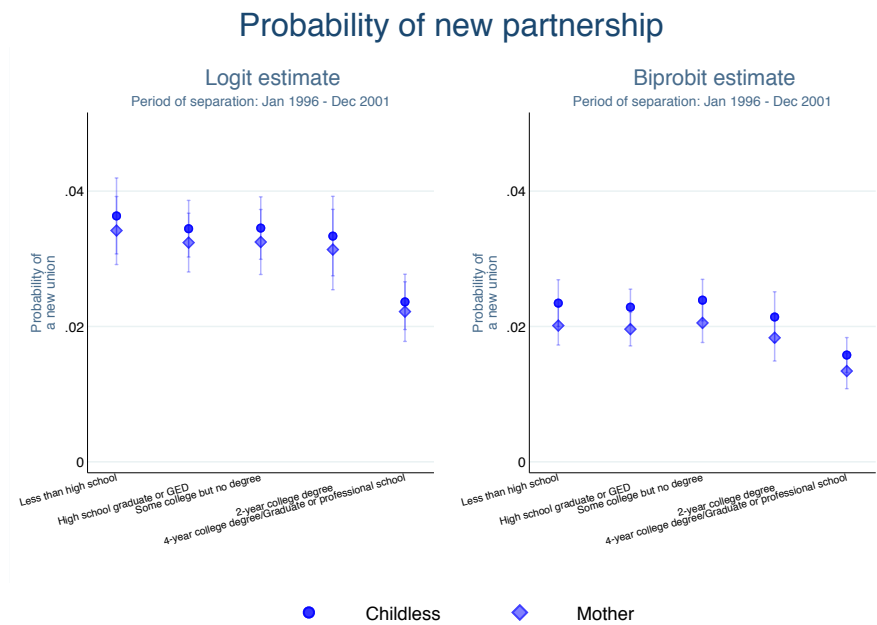
Results

We briefly present the results of the Models 1 and 2 in Graphs 1 to 3. Both present the association of women's marital status and education on their chances of forming a new partnership. The results are shown as predicted probabilities. Model 1 (event-history logit) is displayed on the left and Model 2 (biprobit) is presented on the right.

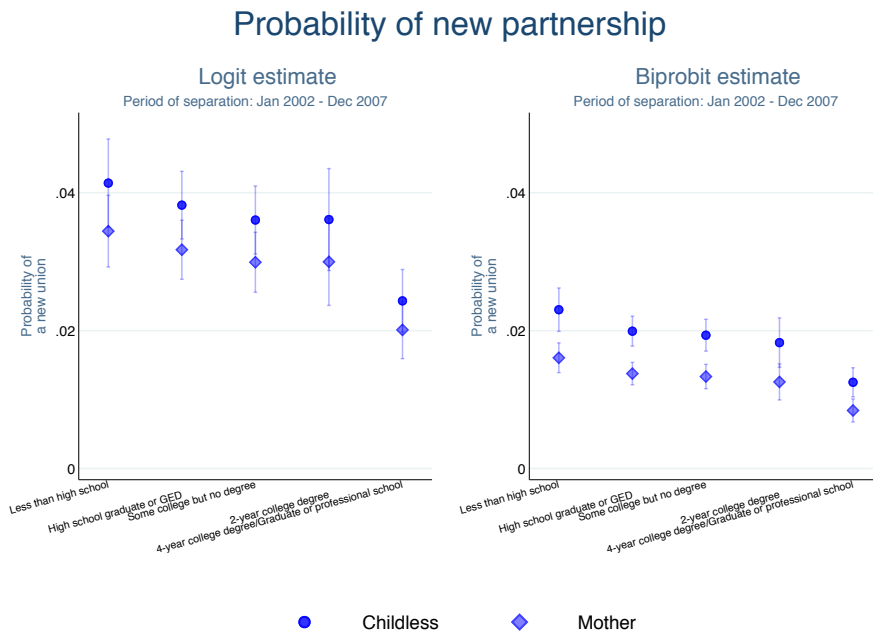
The presence of children (regardless of their residence status) is associated with less frequent repartnering for mothers as compared to their childless counterparts. This gap, which is not significant for women separating between 1996 and 2001, grows larger over time and becomes significant in the logit in the last window (in the biprobit in the second and in the third interval). Education proves determinant for the probabilities of a new partnership formation when it comes to the distinction between those with the highest education (4yr degree) compared to the the other groups. The high-educated women tend to repartner less frequently although no significant gap emerges in the biprobit specification and a marginally significant difference only holds in the first time-window. These findings support the idea that the combined mechanisms of attractiveness, need and opportunities ultimately hamper the repartnering chances of mothers differently. Mothers are probably deemed less attractive relative to the childless women and, if some opposite mechanism of need exists, it is not large enough to make up for the lack of attractiveness. Further, the results show that education does not fill the gap in attractiveness of high-educated mothers as opposed to less educated counterparts. Instead, the relatively higher chances of finding a new partner for the latter might hint at the existence

of a need motive: more disadvantaged women (those with high school or less) tend to repartner more rapidly, possibly because they are more in need to find a second source of income.

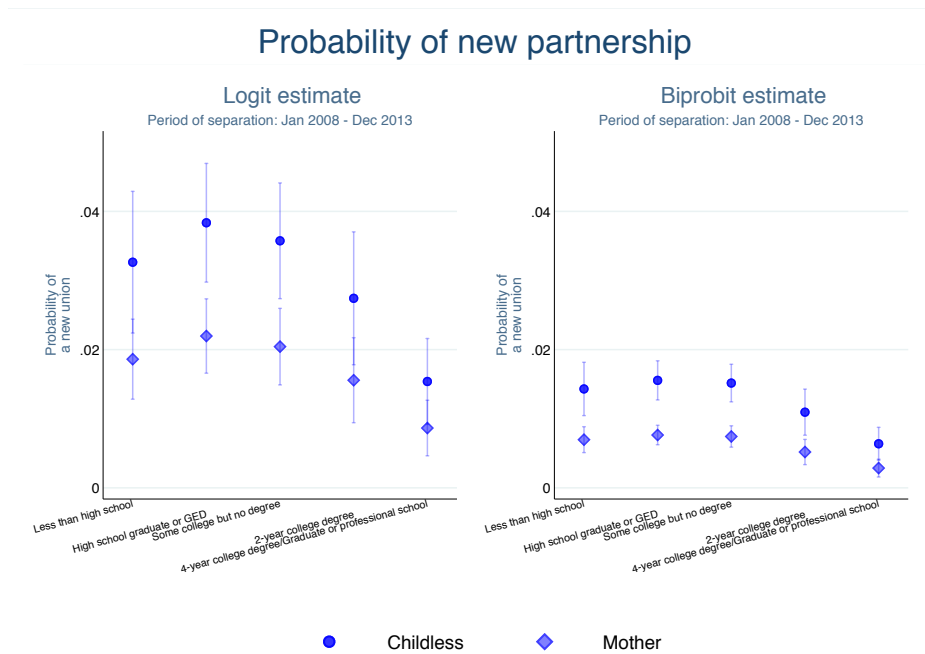
Graph 1. Predicted probabilities by maternal status and education. Union dissolution occurs between January 1996 – December 2001



Graph 2. Predicted probabilities by maternal status and education. Union dissolution occurs between January 2002 – December 2007



Graph 3. Predicted probabilities by maternal status and education. Union dissolution occurs between January 2008 – December 2013



Another interesting finding that emerges from Model 1 and 2 is the increasing repartnering gap between the mothers and non-mothers over time. This widening difference, which is accompanied by a generalised decrease in the chances of repartnering for *all* educational groups, seems relatively larger for “high school” graduated women and those with some college than for the 2-year and 4-year college graduates. Whether this underlines a time trend or an effect of the crisis is not at issue in these models. Nevertheless, we try to disentangle the existence of time trends (e.g., epochal changes in the conceptualization of singlehood and partnership) from a more direct influence of the Great Recession, by showing the results from Model 3.

Table 2 shows the results from three distinct stratified samples by education. Maternal status is systematically associated to lower chances of repartnering and it is more so when interacted with the dichotomous variable “Crisis”, but only for women belonging to the lower educational subgroup. Most disadvantaged mothers display lower chances of new partnership formation, which were probably exacerbated during the economic turmoil. Arguably, the economic recession did not spur women (and particularly, mothers) to find a partner to make up for financial distress (*need motive*), but possibly made them less desirable to potential partners (*attractiveness motive*), or further constrained their time to find a partner (*opportunity motive*).

Table 2. Model 3. Biprobit, with dummy “Crisis” and interaction with “Maternal status”.

Coefficients.

Bi-probit model	<i>High school or less</i>	<i>Some College</i>	<i>Degree</i>
Risk of repartnering			
Mother (vs. childless)	-0.111***	-0.033	0.025
	(0.026)	(0.040)	(0.043)
Crisis (Dec 2007 – Dec 2010)	0.043	0.043	-0.035
	(0.060)	(0.084)	(0.089)
Mother x Crisis	-0.132**	0.005	0.028
	(0.068)	(0.099)	(0.106)
Observations (<i>i x episodes</i>)	48,817	22,045	25,998

Table 3. Model 3. Biprobit, with dummies “Crisis” and “Post-crisis” and interactions with “Maternal status”. Coefficients.

Bi-probit model	<i>High school or less</i>	<i>Some College</i>	<i>Degree</i>
Risk of repartnering			
Mother (vs. childless)	-0.113***	-0.034	0.053
	(0.025)	(0.040)	(0.059)
Crisis (Dec 2007 – Dec 2010)	0.087	0.043	0.003
	(0.062)	(0.089)	(0.078)
Post-crisis (Jan 2011 – Dec 2014)	-0.106	0.179	-0.108
	(0.137)	(0.160)	(0.156)
Mother x Crisis	-0.158**	0.082	0.007
	(0.077)	(0.109)	(0.110)
Mother x Post-crisis	-0.001	-0.399*	0.101
	(0.164)	(0.242)	(0.206)

Observations (<i>i x episodes</i>)	48,817	22,045	25,998
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The result shown in Table 3 strengthens the evidence provided above because it shows that the “widening gap” in repartnering is not (only) due to irremediable societal changes: there does not emerge any further gap *after* the end of the Crisis. We will further investigate the association between the Crisis and repartnering using more detailed measure of economic circumstances.