#### Family Dissolution and Labour Supply Decisions over the Life Cycle

Danilo Cavapozzi, Simona Fiore, Giacomo Pasini

- Life-history data can clarify the consequences of household split and divorce on the probability of working.
- Indeed, employment choices are affected by the occurrence of family dissolution episodes.
- The effect is stronger for women.
- The magnitude of this effect increases with the presence of children.

#### Introduction

In this chapter, we look at the association between family dissolution and labour supply decisions during the lifetimes of Europeans aged 50 and over. Family dissolution episodes can be generally observed as a household split, defined as ceasing to live with the partner as a couple, or a divorce. Both such episodes can force individuals, especially women, to enter the labour market to make ends meet and may induce others to leave the labour market given the stress and related psychosocial effects that they produced.

Several studies have looked at the effect of divorce on the labour market participation of former partners (e.g., Bargain et al., 2012). Nevertheless, family dissolution takes place in two steps. First, the household splits. At this stage, couple members usually reach an agreement about income support according to which the couple member at work (or the better-off one) provides income support to the former partner and the children. Whether this agreement is formal or informal depends on the legislation in place in each country and on the decisions taken by the former partners. A household split may or may not lead to a divorce. In the latter case, the agreement about alimonies and childcare generally becomes formal.

The association between household split or divorce, on the one hand, and labour force participation, on the other hand, may differ. In this chapter, we analyse the employment consequences of family dissolution by separately considering household split and divorce. Allowing for this difference in the time perspective is important because the labour supply of individuals might require time to react to the family dissolution episode. As an example, active search attempts are time-consuming activities. Moreover, individuals might opt to use their savings before entering the labour market to make ends meet. After a divorce, alimonies will mitigate the adverse effects of family dissolution on the dependent partner, thus inducing former partners with a low labour market attachment to exit the labour force again. Alternatively, the need to pay for alimonies is expected to increase the employment participation of the former household breadwinner as a result of the augmented expenses that he (she) has to support. Finally, both divorce and household splits are stressful events that undermine the psychosocial well-being of individuals and can compromise their productivity as well as their labour market attachment. Therefore, understanding the sign and magnitude of the association between employment and family dissolution episodes is an important topic.

#### How We Studied the Topic

In our study, we used data from the 18 countries that participated in one or both of the retrospective waves in SHARE (Wave 3 and Wave 7): Sweden, Denmark, Finland, Ireland, Belgium, Luxembourg, Netherlands, France, Germany, Switzerland, Austria, Portugal, Spain, Italy, Malta, Greece, Cyprus and Israel. We excluded the SHARE countries that were part of the eastern bloc because labour market regulations and institutions there, prior to 1989, were not comparable to those in place in western Europe. We

structured the data according to the life history approach, which recovers the main events that occurred throughout respondents' lives, looking specifically at family relations, children, health, accommodations and employment. Towards this end, we constructed a retrospective panel, as previously documented by Brugiavini et al. (2013).

Overall, our dataset consisted of 1,609,797 person-year observations. We considered 48,487 individuals (27,100 women and 21,387 men). This data format allowed us to reconstruct individual characteristics at the time of the family dissolution occurrence and to observe their time variation. As an example, if an individual divorced in a given year, the retrospective panel allows for the observation of previous, current and future situations of this individual with respect to a number of characteristics crucial for the analysis, such as employment and number of children. This ability is a clear advantage over standard surveys that retrieve information about the occurrence of family dissolution events but cannot track the time variation of individual characteristics over respondents' lifetimes.

We tracked individuals from the year of their first marriage up to age 60, or until they classified themselves as retired. On average, each respondent had 18 year-observations. The average age at first marriage was 27 years for men and 24 years for women. We observed at least one household split event for approximately 10% of the individuals in our sample, including at least one divorce for approximately 9% of them. The probability of being at work differed widely by gender; 95% of the observations among the men referred to years in which they were at work, whereas this percentage fell to 57% among the women.

We estimated fixed effects linear probability models in which the dependent variable was a binary outcome taking on the value of 1 if the individual worked and 0 if otherwise. Our specifications alternatively investigated how the probability of being employed varies with the occurrence of a household split, described by a dummy variable taking on the value of 1 in the years during which the end of a family relationship was observed and 0 otherwise, and with the occurrence of a divorce, described by a dummy variable taking on the years during which a divorce was reported. All of the specifications included a set of time-varying explanatory variables consisting of a second-order polynomial of age, a full set of year dummies referring to the calendar years to which observations referred and a dummy variable for the presence of children. The fixed effects panel data technique allows controlling for any time-invariant unobserved individual characteristics. Finally, the analyses were conducted separately by gender.

## Results

On average, the probability of men working only slightly varied in the year of the household split, with a coefficient suggesting an increase by less than 1 percentage point. The men's labour supply response to divorce was higher in magnitude (Table 1). In comparison, the employment rate among women rose by 2.5 percentage points in the year of the household split and by 5 percentage points in the year of the divorce (Table 2). These are sizeable differences in economic terms given the much lower employment rates of women. This pattern is consistent with the hypothesis that the minimum wage for which individuals, particularly women, experiencing family dissolution are willing to work decreases, which induces them to have stronger labour market attachment. Overall, the positive sign of the coefficient on the household split and divorce dummies suggests that the positive effect on the labour supply of the income channel is stronger than the negative effect potentially induced by the psychosocial problems generated by household dissolution.

Table 1: Men, probability of being at work, divorce and household split.

	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Panel A						
Year of Split (dummy)	0.008**	(0.004)	-0.004	(0.010)	0.008**	(0.004)
Year of Split X Children (dummy)			0.016	(0.010)		
1 Year before Split (dummy)					0.008*	(0.004)
2 Years before Split (dummy)					0.008*	(0.004)
1 Year after Split (dummy)					-0.002	(0.005)
2 Years after Split (dummy)					-0.003	(0.004)
<u>Panel B</u>						
Year of Divorce (dummy)	0.012***	(0.004)	0.016	(0.010)	0.010**	(0.005)
Year of Divorce X Children (dummy)			-0.006	(0.011)		
1 Year before Divorce (dummy)					0.009**	(0.005)
2 Years before Divorce (dummy)					0.009**	(0.005)
1 Year after Divorce (dummy)					0.004	(0.005)
2 Years after Divorce (dummy)					0.002	(0.005)
No. of observations	679,365		679,365		593,928	
No. of individuals	21,387		21,387		21,296	
Mean of the dependent variable	0.95		0.95		0.95	

Significance: \*\*\* = 1%; \*\* = 5%; \* = 10%

Note: Fixed effects linear probability model. The set of explanatory variables includes a second-order polynomial of age, a full set of year dummies referring to the calendar years to which the observations refer and a dummy variable for the presence of children. Standard errors are robust to arbitrary heteroskedasticity in the error term.

Source: SHARE Wave 3, release 6 and Wave 7, release 0.

Table 2: Women, probability of being at work, divorce and household split.

	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
<u>Panel A</u> Year of Split (dummy) Year of Split X Children (dummy) 1 Year before Split (dummy) 2 Years before Split (dummy) 1 Year after Split (dummy) 2 Years after Split (dummy)	0.025***	(0.005)	-0.005 0.035***	(0.012) (0.013)	0.031*** -0.003 -0.002 0.037*** 0.043***	(0.005) (0.006) (0.005) (0.005) (0.005)
<u>Panel B</u> Year of Divorce (dummy) Year of Divorce X Children (dummy) 1 Year before Divorce (dummy)	0.049***	(0.006)	0.009 0.049***	(0.015) (0.016)	0.058*** 0.020***	(0.007) (0.007)

2 Years before Divorce (dummy) 1 Year after Divorce (dummy) 2 Years after Divorce (dummy)			0.012* (0.007) 0.057*** (0.007) 0.059*** (0.006)	
No. of observations	930,432	930,432	822,213	
No. of individuals	27,100	27,100	26,972	
Mean of the dependent variable	0.57	0.57	0.56	

Significance: \*\*\* = 1%; \*\* = 5%; \* = 10%

Note: Fixed effects linear probability model. The set of explanatory variables includes a second-order polynomial of age, a full set of year dummies referring to the calendar years to which the observations refer and a dummy variable for the presence of children. Standard errors are robust to arbitrary heteroskedasticity in the error term.

Source: SHARE Wave 3, release 6 and Wave 7, release 0.

The gender differences in employment participation attributable to family dissolution were also confirmed with respect to the number of children. We added an interaction term between the household split and divorce dummy variables and the presence of children. The interaction was not significant for men but was for women. Specifically, neither household split nor divorce was correlated with the employment decision among women without children but was significant among those with children. A possible explanation is that children are likely to live with their mothers after family dissolution. Despite the availability of alimonies or informal income support arrangements with their former partners, single mothers still need labour earnings to afford expenses related to their children.

As we already pointed out, the labour market effect of household dissolution episodes may not be immediate if, for example, a person decides to use savings to make ends meet or if the job search requires time. Moreover, family dissolution may not be a shock but rather the epilogue of a deteriorating family situation, in which case the effect on the labour market decision might have taken place earlier. People relying on their partner's income may foresee that they are approaching the end of their relationship and anticipate the income effect. If this is indeed the case, we should observe an increase in the probability of working well before the year during which a household split or divorce actually takes place.

To shed light on the prevalent time pattern, we followed the approach of Myrskylä and Margolis (2014) and added two lags and two leads of the household split and divorce dummies to our specifications. This allowed analysis of how the employment decision reacted to past, current and future family dissolution. Strong gender differences were found in this respect as well. The positive association between family dissolution and labour market participation for men is statistically significant in the two years preceding a split and a divorce. The magnitude of this effect is comparable to the one of the exact year of these two events. Regarding women, split and divorce play a different role. We observed an increase in their employment probability in the years following a household split but no effect for the years preceding it. A persistent effect over time is also found for the years following divorce. Nevertheless, it is worth noting that in the case of divorce there is an anticipation effect: women are more likely to be at work also in the labour supply of women reacts to household split and divorce events is consistent as divorce necessarily cannot take place before a split.

The analysis in this paper cannot rule out reverse causality and identifies only associations. Therefore, an alternative interpretation is that individuals with a higher labour market attachment are also more likely to

leave unhappy marriages (Amato, 2010). Finally, we consistently found lower magnitudes when looking at household splits compared with divorce, for both men and women.

# Conclusions

Our study findings suggest strong gender differences in the effect of household dissolution on employment probability. Whereas household dissolution has a negligible effect on men's employment behaviour, the employment probability of women increases by 4.4 per cent during the year of a household split and by 8.6 per cent during the year of divorce. The effect is driven by women with children. Although both household split and divorce shape women labour supply also after their occurrence, we found an anticipated effect on employment choices only for divorce. This pattern might be driven by the choice of women to undertake job search activities only after they stop living as a couple with their former partners. Finally, we consistently find lower magnitudes when looking at household splits compared with divorce, for both men and women.

The policy implication of these findings is that once within-family income support disappears because a family dissolves, those more at risk – women out of the labour force with dependent children – should be given assistance to manage their work and family responsibilities. Access to childcare services and flexible work arrangements may help smooth the consequences of family dissolution.

## References

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