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IZA DP No. 18343

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ABSTRACT

The Effect of Separation on Poverty and Employment*

Using 2001–2021 HILDA survey data, this paper estimates how separation or divorce affects poverty and employment trajectories over five years after the event. A difference-in-differences approach compares separated individuals with couples who stayed together, accounting for recent and long-term labour market history prior to separation. Women with preschool children face a 19.9 percentage point higher poverty risk in the first year, which fades within three years. Women with older or no children experience smaller but longer-lasting poverty increases. Preseparation employment strongly moderates effects: non-employed women face much higher poverty risks than employed women who have similar poverty risks to men. Men's poverty impacts are smaller and shorter-lived. Separation barely changes women's employment but slightly reduces men's employment, especially those with preschool children.

JEL Classification: I32, J12, J16
Keywords: relationship breakdown, poverty, economic autonomy

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1. Introduction

Relationship breakdown is a common life event with often severe economic consequences. Childhood poverty is most prevalent among children with divorced or separated parents, and can have far-reaching impacts on children's life course. Across the OECD in 2021, 29.3% of children in single adult households were living in poverty, compared to 8.9% in households with two or more adults. This is similar in Australia, where 35.7% of children in single adult households live in poverty, more than three time the rate for children overall (OECD, 2025). Older, single women are also over-represented in the population below the poverty line and are more likely to be financially vulnerable than the general population. Many women in this situation have previously had a relationship and children. Ahonen and Kuivalainen (2024) show for 14 European countries that women's old-age poverty risk is closely linked to their living alone (although the rates vary strongly by country), and that this is much less the case for men. Australian data from 2001 to 2019 shows that 39% of single women over the age of 55 who have had at least one previous de facto or legal marriage live below the poverty line, compared to 18% of women in this age group who are still living in their intact first marriage (Broadway et al., 2022).

Although all Australian residents are eligible for income support when they have insufficient income, people who are dependent on income support tend to fall below the poverty line. If, as a society, we want to combat poverty – especially among children and the older population, it is crucial that we understand what—if any—causal effect separation has on poverty risk and financial wellbeing more generally, and whether employment is a useful tool of protection. This paper aims to address this question.

We contribute to the existing literature on the economic impacts of separation in three ways: first, we shift the focus on the impacts of separation on poverty, rather than average income. This focus on the lower end of the income distribution is important because preventing families falling into poverty is an important social policy goal. And secondly, we explore the role of economic autonomy by examining how the impact of separation on poverty is mediated through both partners' employment status when the relationship was still intact, and the interplay with their post-separation employment.[1] And third, we use rich, longitudinal survey

[1] Female labour force participation in Australia is high (74%) compared to all OECD countries (63.6%), but a large proportion of women are in part-time work (32.5%) compared to all OECD countries (22.8%). See "Employment population ratio" and "Incidence of full-time and part-time employment based on OECD-harmonised definition" for 2024 on https://data-explorer.oecd.org/ (viewed on 3 October 2025).

data to combine a difference-in-difference estimation approach with weights based on the couple's propensity to separate.

Most studies of the financial consequences of divorce (see Mortelmans (2020) for a good overview) examine average changes in equivalised disposable household income. Across a large number of countries, and at different points in time, these studies typically find that divorce or relationship breakdown cause a large loss in average income for women – of about 20% to 40% – and a small loss or small gain for men. See DiPrete and McManus (2000), Hauser et al. (2018) and Burkhauser et al. (1991) for the U.S. and Germany, Manting and Bouman (2006) and Poortman (2000) for the Netherlands, and Bonnet et al. (2021) for France. Watson and Baxter (2022) and de Vaus et al. (2017) find somewhat smaller but still substantial decreases in household income for women in Australia of about 20% and 25% respectively. Boertien and Lersch (2020) find that relationship dissolution also reduces wealth, and that the degree to which this is borne by men or women depends on institutional settings. We examine the financial impact of separation, focussing on the lower end of the income distribution: i.e. the individual's risk of falling below the poverty line caused by the relationship breakdown.

We are also interested in the importance of economic autonomy for a family's economic position after separation. Can economic autonomy help avoid or alleviate the financial fallout from a family breakdown? One important study looks at economic autonomy on a societal level. Andreß et al. (2006) use data from 5 EU member states selected to represent institutional environments that are more or less favourable for women's economic autonomy. They find that higher economic autonomy of women in terms of employment and earnings leads to more equal income changes for men and women after separation. However, gender-specific division of labour within couples and the resulting economic dependence of women, leads to large financial losses for women caused by separation.

On an individual level, the role of economic autonomy in the impact of separation can be approached from two distinct angles. First, we may ask if economic autonomy *before* separation, especially in the form of employment, provides any protection from negative financial consequences? And second, we may be interested in the probability of separated individuals 'catching up'; i.e. if prior to the separation they were not employed: does separation increase the probability of employment, and thereby advance economic autonomy, after the family breakdown? Van Damme et al. (2009) use data on 13 countries from the European Community Household Panel (1994–2001) to analyse this latter question. They find that European women only modestly increase employment after separation, although in some

countries this change is larger than in others. In contrast, Bonnet et al. (2021) find that previously non-employed individuals take up employment at high rates after a separation. They also include the share of income earned by the male versus female partner into their analysis to speak to economic autonomy prior to separation and find it to be extremely important. That is, partners in couples who earn similar amounts, both suffer a similar, moderate loss in living standards after separation due to the loss of economies of scale. But in couples with a high degree of marital specialisation, the lower earning partner suffers much greater losses than the main provider does.

We build on these studies and examine how i) separation affects future employment, and ii) how past employment moderates the impact of separation on poverty. Specifically this paper shows the effect of separation on poverty risk and employment rate as well as working hours and earnings, for one to five years after separation. Separate results are presented for men and women by presence and age of dependent children prior to separation. This provides valuable insights into the most vulnerable population groups and should inform policy priorities. We then examine the role of pre-separation employment history over the life course as well as in the more recent past, as a protective mediating factor for post-separation financial stability and employment prospects.

Methodologically, much of the existing literature is cross-sectional, and can only uncover associations between separation and financial outcomes. In contrast, our analysis aims at uncovering the causal effect of separation for separated couples. Our method is closely related to the approach employed by Bonnet et al. (2021). Using a difference-in-differences approach, the analysis is conducted by observing trajectories of financial circumstances before and after separation for separated men and women, and comparing these to the financial trajectories of a group of partnered men and women who remained partnered over the same period. To strengthen a causal interpretation of our estimates, we construct analytical weights designed to balance the control group and treatment group in a wide range of characteristics, including their labour market history since leaving full-time education and their detailed labour market and income history in the three years leading up to the separation, as well as socio-demographics such as health and education. Our survey data can balance treatment and control group on a wide range of relevant personal attributes, and we show that controlling for these attributes has an important impact on the validity of our estimates. Thielemans and Mortelmans (2019) show that employment outcomes can change in the months leading up to a divorce; to avoid contamination of our estimates through anticipation effects, we compare post-separation

financial outcomes to the baseline outcomes measured at least 12 months before separation instead of those immediately preceding the event. After these adjustments, tests of the common trend assumption show that in the absence of separation, no divergence of financial outcomes between control group and treatment group would have been expected.

The analyses in this paper show that women with children below school age (0 to 4 years) are 19.9 percentage points more likely to be poor in the year after separation, than otherwise similar women with pre-school-aged children who remained partnered. After three years, however, the added poverty risk from separation is much smaller and no longer significant. In contrast, women with older children or without children have on average, a less elevated poverty risk caused by separation, but the higher poverty risk proves persistent for at least five years after separation. The impacts for men are not small compared to their baseline poverty risk, but less stark than for women and more short-lived, except for men with young children where the increase in poverty is highest at +7.6 percentage points in the first year and more persistent.

Regarding the impact on employment immediately after separation, we find that none of the effects are significant for women at the extensive margin, but there is a small impact on hours worked and wages for employed women without children. For men, a small reduction is observed in employment which is mostly driven by men with preschool children at the time of separation. Women's pre-separation employment, however, is important as it protects against post-separation poverty. The impact of separation is very large for women who were not employed pre-separation; after separation this group has a 26.7 percentage point higher probability of poverty on average (31.7 percentage points for women with preschool children). Women who were employed before separation experienced much smaller increases in poverty of 6 to 8 percentage points, which is similar to the increase in poverty by their partners. None of the impacts on employment are significant.

For men partnered to women who were not employed before separation, none of the impacts on poverty are significant. However, men with partners who were employed before separation experienced an estimated increase in poverty of 5.1 percentage points in the first year which decreased to around 3.5 percentage points in years 4 and 5 after separation. This increase appears to be mostly driven by men with older children. Men with children and partners in pre-separation employment also reduced their employment while the men partnered to women who were not employed before separation did not.

In the next section we discuss the methodology. The data and sample of analysis are described in Section 3, followed by results in Section 4. The final section discusses some policy implications and concludes.

2. Estimation Approach

Our goal is to analyse how separation affects a person's poverty risk, probability of employment and working hours given employment. However, relationship breakdowns do not occur randomly but tend to be more likely for people already in poverty and/or in unemployment. This is also true for our sample (see descriptive results in Section 3.2). Furthermore, a person's financial situation and employment patterns vary with time and with age, even in the absence of a relationship breakdown. Hence, if we relied solely on within-person changes in employment status or experiences of poverty to estimate the effect of separation, we would risk attributing to separation what may have been caused by macroeconomic conditions or lifecycle patterns. And if we relied solely on differences between separated and non-separated individuals, our estimates could be biased by pre-existing heterogeneity that affects both a couple's risk of separation and their economic outcomes. We therefore employ a difference-in-differences strategy to estimate linear probability models for poverty and employment[2], and a linear model of weekly working hours and wages:

$$Y_{it} = \alpha + \beta \cdot S_i + \sum_{\substack{j=-5 \\ j\neq -1,0}}^{5} \gamma_j \cdot P_{ij} + \sum_{\substack{j=-5 \\ j\neq -1,0}}^{5} \delta_j \cdot P_{ij} \cdot S_i + \varepsilon_{it} \qquad (1)$$

The variable Y_{it} represents the four dependent variables: $Poverty_{it}$, $Employment_{it}$, $Hours_{it}$ and $Wages_{it}$ for person i at time t. The coefficient α is a constant to be estimated. The variable S_i is a group indicator that takes value 1 for all individuals i who experience separation during the observation window and 0 for those who remain partnered. P_{ij} is a set of nine dummy variables that are equal to one if $j=t$ (and 0 otherwise) and that indicate whether an observation belongs to any of the post-separation periods 1 to 5, or to the pre-separation period -2 to -5.[3] The last wave before the separation occurs is defined as t=0, and this observation is excluded from the analysis. The reference period is at t=-1, which is at least one full year prior to separation, rather than the year when separation occurred (t=0). A family breakdown can result from a major

[2] Predicted probabilities are all between zero and one. The model includes only fully interacted sets of dummy variables which effectively split the sample into 'population cells', with the linear probability model yielding predictions identical to the within-cell sample averages.

[3] For non-separating individuals, one period when 'absence of separation' was observed was chosen as focal point, and the "pre" and "post"-periods were defined relative to this focal point. Section 3.1 provides more detail.

worsening of the couple's financial situation, or individuals can change their labour supply in anticipation of an impending breakup.[4] For these reasons, it is difficult to disentangle the direction of any causal relationship between employment, poverty and separation in the time period immediately surrounding the separation. To avoid this problem, we calculate differences in outcomes "pre" and "post" separation by defining "pre" separation as one year prior to separation.[5]

The interaction between S_i and P_{it} represents how the change in post-separation trajectories relative to pre-separation outcomes for separated individuals differs from the trajectories of their non-separated counterparts after experiencing their focal point event "absence of separation". The coefficients δ_t where t is 1 to 5 hence represents five estimated effects of separation on the outcome variable, in the five periods following separation at time 0. The coefficients δ_t where t is -2 to -5 indicate whether treated and control group experienced common trends before separation at time 0.

The difference-in-differences estimation approach yields an unbiased estimate, only if – were it not for their relationship breakdown – individuals in couples that separate would have followed the same trajectories as individuals in couples that remain partnered. The "common trends" assumption is, of course, more likely to hold the more similar individuals in both groups are. We create weights w_i based on individuals' propensity to separate to estimate weighted regressions:

$$w_i Y_{it} = \alpha + \beta \cdot w_i S_i + \sum_{\substack{j=-5 \\ j\neq -1,0}}^{5} \gamma_j \cdot w_i P_{ij} + \sum_{\substack{j=-5 \\ j\neq -1,0}}^{5} \delta_j \cdot w_i P_{ij} \cdot S_i + \varepsilon_{it} \qquad (2)$$

An individual's propensity to separate is estimated using a probit estimator with separation as dependent variable and a wide range of control variables X_{ipre} as independent variables. All variables in X_{ipre} are measured in the "pre"-period and include standard demographics such as age and education, descriptors of family structure and relationship history, as well as an individual's own and partner's past labour force status and history, and calendar time. Non-

[4] Bargain et al. (2012), Chiappori et al. (2017) and Rangel (2006) examine the labour market response to anticipated relationship breakdown, while Tamborini et al. (2015) found that divorce increased earnings starting from one year before the dissolution.

[5] For example, if a couple is observed to be partnered in 2015 and no longer partnered in 2016, the pre-separation employment and poverty are measured in 2014, 2013, 2012, 2011 and 2010, and post-separation employment and poverty in 2016, 2017, 2018, 2019 and 2020. The 2015 observation is not used and the observation in 2014 is used as the reference.

separating individuals and their separating counterparts are then compared in terms of their pre-period propensity to separate, and the more similar the non-separating individual is to those who are about to separate, the higher the weight that is assigned to them.

We demonstrate the importance of balancing the treatment and control group on other characteristics by estimating both equation (1) which does not account for differences in control variables and equation (2) which accounts for differences in control variables through the weights. There are substantial differences between the base model results from equation (2) and the results without controls from equation (1), especially for men, which shows the importance of accounting for differences between the sample of separated individuals and the sample of individuals who remain partnered.[6]

The process used to construct regression weights w_i is very similar to a matching procedure (specifically, a combination of exact matching on sex and presence/age of children, and kernel matching). A detailed description, including the full set of control variables, is provided in Appendix A5. However, in a classic matching estimation approach the weights would be used to calculate mean outcomes of separated and partnered individuals, which only yields unbiased estimates if, conditional on the propensity score, separation is a random event – an assumption that typically cannot be tested. In contrast, we only use the weights to improve the difference-in-differences estimator; this means we can depend on the much less restrictive assumption that, in the absence of separation, the two groups would have followed common trends. We test the common trends assumption for both variations of the model described in equations (1) and (2) by running these regressions. The insignificant coefficients on the interactions between the group indicator S_i and the set of period dummies P_{it} from the pre-separation period indicate that the common trend assumption prior to separation cannot be rejected.

Previous research has consistently demonstrated that the impact of separation is strongly gendered; we therefore conduct the analysis separately for men and women. In addition, we repeat the analysis with both the male and the female sample split by presence of dependent children at the time of separation, because child custody arrangements could change the impact of separation on poverty and labour market outcomes. Lastly, we split the samples of men and women with dependent children, into those with at least one pre-school aged child (age 4 and below) and those whose children are all at least of school age (age 5 and above).

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[6] Full results showing the estimates of equation (1) are included in Appendix A4, Tables A4.1 to A4.4.

In addition to finding the effect of separation on later outcomes, this study also aims to shed light on the factors that could lessen any negative impacts of separation for separating couples, in both severity and duration. Of particular interest are the employment decisions made while the partners are still together, and whether these may protect against poverty later on. While in theory, the two members of a couple choose (individually or jointly) both partners' employment status, in practice it is rare for married working-age men to be out of the labour force, making it a choice that is difficult to examine without a very large sample. We thus focus our attention on women's pre-separation employment. We repeat the estimation separately for women who were employed one year before separating and those who were not, as well as for men whose *partners* were employed one year before separating and men whose partners were not.

3. Data

The analyses use 21 waves from the HILDA Survey to examine poverty risk[7] and employment outcomes for previously partnered men and women[8] just after their relationship has ended compared to when it was still intact, and for up to five years later.[9] HILDA is an annual household panel which started in 2001, with detailed financial information and labour market information on all household members over 15 years of age and, in the case of separation, any new household members, including new partners. Variables used in the analysis are defined in Appendix A1. All household members aged 15 and over are interviewed in every wave. Therefore, the same detailed information is available for members of both cohabiting and married couples. In Australia both married and de facto partners have the same rights in a separation, and are treated the same in relation to asset splitting after separation.

The data allow us to see i) how someone's outcomes after separation are affected by the characteristics, outcomes and choices made by themself and their partner before separation, and ii) how two members of the same couple fare after a separation. The analysis starts with a

[7] A household is defined to live in poverty if total disposable household income adjusted for household size is less than half of the median disposable household income adjusted for household size across all Australian households.

[8] This includes both legal marriages and de facto relationships in opposite-sex couples and same-sex couples. While same-sex couples are included in the sample, their numbers are small and their outcomes before and after separation are not explicitly modelled as being distinct from those in opposite-sex relationships.

[9] As a sensitivity check we remove waves 20 and 21 (see Section 4.3), which may be impacted by COVID-19 and show lower poverty rates as a result of the temporary increase in income support payments (i.e., the JobSeeker and JobKeeper payments).

sample of partnered individuals and follows them over time. Some of the originally partnered individuals separate during the period of observation, while others remain partnered.

3.1. Selecting the Sample of Analysis

The first step in the sample selection process is to identify couples. Every individual in the study is assigned a unique and permanent identification number (ID). If the individual shares a household with a partner, the partner is also included in the study and assigned an ID. An individual's record includes their partner's ID. When two individuals' records include matching IDs and partner IDs for the first time, the couple enters our sample of analysis.[10] There are 24,379 such individuals in HILDA. To determine whether the event of a separation has occurred and when, the partnered individual has to be observed in two consecutive waves: if they are partnered to a particular person in one wave and not partnered to the same person in the following wave, and this does not coincide with the partner's death,[11] a separation has occurred; if the same individuals are partnered in both waves, they have remained together.[12] We therefore only include person–year observations in the sample where an interview in the next wave is available that allows us to determine whether the event of 'separation' has taken place or not; we find that 13,991 individuals did not separate and 3,218 individuals separated. In addition, we need at a minimum one more observation prior to the separation to be able to test the "common trend" assumption, and to examine the role of pre-separation labour market history. We thus only include individuals with at least three consecutive interviews in the analysis. Further, we restrict the analysis to observations of individuals before they turn 62, as we are primarily interested in separations that occur during a person's potential working life.

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[10] Every individual is included in the analysis only once, based on their first observed relationship. If they separate and re-partner at a later point, their new relationship is considered a 'post-separation outcome'; the person does not re-enter the pool of partnered individuals for analysis a second time.

[11] As is the case for separated partners, widowed men and women may face financial challenges if one of the partners has specialised in home production. However, overall, the financial implications of widowhood are quite different from those of separation, as there is no splitting of marital assets, the couple may have purchased life insurance, and there is no option to share child custody and/or receive child support. In our base specification, we consider widowed spouses as 'not separated' in the wave when the death occurred and then remove them from the risk pool for the following waves. We also test the sensitivity of our results in Section 4.3 by excluding individuals who experience the death of a partner from the analysis altogether. This removes 26 men and 104 women from the sample.

[12] Where separation can only be inferred for one partner, we use this information for both partners. Where a separation has occurred earlier according to the information available for one partner than for the other, the earlier separation date is used for both partners.

Table 1 shows that these restrictions reduce the sample of analysis to 2,264 individuals for whom a separation is observed and 10,703 who remain partnered for the entire observation window. This selection excludes short-term relationships that do not span at least two interviews; and because relationship breakdowns are more likely early in a relationship, the implicit requirements for relationship duration result in a lower incidence of separation in our sample, compared to the population average.

Table 1 Sample selection steps and change in number of observed events and individuals

Sample selection	Individuals who remain partnered	Number of events for non-separating individuals (average)	Individuals who separate	Number of events for separating individuals (average)	Share of individuals who separate
Starting point	13,991	9.53	3,218	7.57	18.7%
Only include individuals <62 with 3+ interviews	10,911	8.66	2,344	7.08	17.7%
Use point of separation as focal event	10,911	8.66	2,344	1	17.7%
Remove observations with missing values	10,703	8.70	2,264	1	17.5%

Source: HILDA Survey, Waves 1 to 21; authors' calculations.

For every individual who experiences a separation, the natural focal point of the analysis is the time of separation—subsequent outcomes up to five years after the event and the individual's history prior to the event are defined with respect to the point in time when separation is observed. In contrast, for individuals who do not experience a separation, the event of 'remaining partnered' (or 'no separation') can be observed multiple times, and so can a history prior to and following the event of 'no separation'. We keep those who remain partnered in the sample at all observed points in time, constructing corresponding histories of past and future outcomes with respect to each possible point in time. However, every separating individual is included in the analysis at the point of separation only, with their history leading up to that point and their future following from that point.[13]

Finally, we remove observations with missing information on key variables in their labour market or income history (household income, own labour force status, own weekly working

[13] If we were to include previous (pre-separation) observations for the individual when the event "continuation of the relationship" was observed for them, problems with overlapping histories could occur.

hours and time spent out of the workforce), or in relevant future outcomes (household income or labour market outcomes). This leads to a sample of 2,264 individuals (1,196 women and 1,068 men) who experience a separation. Observations from 10,703 non-separating individuals can be used to which to compare the separated individuals' outcomes, with a total of 93,062 person–year observations available for that purpose.

3.2. Summary statistics: men's and women's characteristics prior to separation

Table 2 shows socio-demographic characteristics such as age, health and education for men and women. Men and women who separate are much more likely to be younger than 30 years and much less likely to be older than 50 years than the individuals to whom we could compare their outcomes: 30% of men and 36% of women who are about to separate are less than 30 years of age, compared to 12% and 14%, respectively, among the men and women who remain partnered. Importantly, despite their lower age, separating men and women are disadvantaged in terms of health and educational qualifications. Separating individuals are less likely to be in excellent or very good health just before separating (39% versus 47% for men, and 41% versus 50% for women). Separating individuals also have lower education and are especially less likely to have university degrees—men and women who separate are around 14 percentage points less likely to have a tertiary qualification than their non-separating counterparts. Separating individuals are also more likely to have a youngest child below school age, are less likely to have been legally married and their relationships were, on average, shorter.

When it comes to their labour market history leading up to separation, we see that separated men are substantially less likely to have been employed than their male counterparts who remain in their relationships (84-85% instead of 91-92%). In addition, their labour market attachment in the past also appears less stable: men who separate spent fewer years in employment – as one would expect given their age – but they have also accumulated a larger share of time out of the workforce than men who stay with their partners. As presented in Panel (B) of Table 2, men are also more likely to be out of the labour force (10% instead of 7%) and in unemployment (5% instead of 2%) in the year before separation. Women show, unsurprisingly, lower employment rates and higher rates of being out of the labour force than do men. But the pattern by separation status remains the same: women who are about to separate are less likely to be employed, more likely to be unemployed, and more likely to be out of the labour force than their female counterparts whose relationships continue. For women,

the difference between the two groups is in the same direction but is less pronounced in relation to the time spent out of work.

If they are employed, separating men and women earn less than those who remain partnered (14% less among men and 8% less among women). This could be the case for a variety of reasons, including their lower education, and fewer years of experience because of their age. These disadvantages are also reflected in pre-separation household income levels: men and women who are about to separate live in households with an income that is 18% lower than the income in households that stay intact.[14] The difference is even starker at the lower income end: the likelihood of living in poverty a full year prior to the impending relationship breakdown is more than twice as high for separating individuals as it is for their non-separating counterparts.

Men and women who separate are relatively disadvantaged even before their separation—in their health, education, and previous history of employment and income. The difference-in-differences estimator combined with a wide range of flexible controls through the inclusion of weights aims to account for these differences to yield unbiased estimates.

[14] This is based on disposable household income which includes income from employment, government benefits, investments and businesses; taxes paid; and child support received or paid – added up for all household members. Total household income is 'equivalised' using weight 1 for the first adult household member, 0.5 for all other adult household members, and 0.3 for all children who spend five nights or more in a typical two-week period in the household. Children in shared care arrangements can be counted as members of multiple households for this purpose.

Table 2 Characteristics of men and women who remain partnered versus men and women who separate

	Men who remain partnered		Men who separate		Women who remain partnered		Women who separate	
	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.
Panel A: Observable characteristics included in X_{ipre} (to be used in estimating the propensity to separate)								
Age								
<=29 years	0.12	0.32	0.30	0.46	0.14	0.35	0.36	0.48
30–34 years	0.12	0.33	0.15	0.36	0.13	0.33	0.13	0.34
35–39 years	0.13	0.34	0.14	0.34	0.13	0.34	0.14	0.34
40–44 years	0.14	0.34	0.12	0.33	0.14	0.35	0.13	0.34
45–49 years	0.14	0.35	0.13	0.34	0.14	0.35	0.11	0.32
50–54 years	0.14	0.35	0.09	0.29	0.13	0.34	0.07	0.26
>=55 years	0.21	0.41	0.07	0.26	0.18	0.39	0.06	0.23
Education								
Has university degree	0.32	0.47	0.18	0.38	0.36	0.48	0.23	0.42
Has (advanced) diploma, Cert III or Cert IV	0.42	0.49	0.39	0.49	0.27	0.45	0.32	0.47
Has completed Year 12	0.11	0.31	0.16	0.36	0.14	0.36	0.18	0.38
Has not completed Year 12	0.16	0.37	0.27	0.44	0.23	0.42	0.27	0.45
Health								
Excellent	0.11	0.31	0.09	0.29	0.11	0.31	0.07	0.26
Very good	0.36	0.48	0.30	0.46	0.39	0.49	0.34	0.47
Good	0.35	0.48	0.33	0.47	0.33	0.47	0.32	0.47
Fair/Poor	0.11	0.31	0.15	0.36	0.11	0.31	0.14	0.35
Missing	0.08	0.27	0.13	0.33	0.07	0.25	0.12	0.33
Migrant status								
Born in Australia	0.77	0.42	0.83	0.38	0.77	0.42	0.82	0.39
Born in main English-speaking country	0.11	0.31	0.09	0. 29	0.09	0.28	0.09	0.28
Born elsewhere	0.12	0.33	0.08	0.27	0.14	0.35	0.10	0.30
Number of dependent children in household								
None	0.40	0.49	0.39	0.49	0.43	0.50	0.37	0.48
1	0.19	0.40	0.20	0.40	0.19	0.39	0.22	0.41
2	0.27	0.44	0.28	0.45	0.25	0.43	0.28	0.45
3	0.10	0.31	0.09	0.28	0.10	0.30	0.09	0.28
4 or more	0.03	0.18	0.04	0.20	0.03	0.17	0.04	0.20

	Men who remain partnered		Men who separate		Women who remain partnered		Women who separate	
	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.
Age of youngest child in household								
No child in household	0.40	0.49	0.39	0.49	0.43	0.50	0.37	0.48
Youngest child is below school age	0.25	0.43	0.31	0.46	0.23	0.42	0.32	0.47
Youngest child is 5–9 years old	0.13	0.34	0.14	0.35	0.13	0.33	0.14	0.35
Youngest child is 10–14 years old	0.12	0.32	0.10	0.30	0.11	0.31	0.10	0.30
Youngest child is 15 years or older	0.10	0.30	0.06	0.24	0.10	0.30	0.06	0.24
Relationship history								
Marital status (1=Married, 0=Cohabiting)	0.82	0.38	0.53	0.50	0.82	0.38	0.55	0.50
Relationship duration (years)	16.09	11.02	10.11	9.07	17.00	11.61	10.25	9.48
Relationship duration missing	0.02	0.14	0.05	0.22	0.01	0.12	0.07	0.26
Labour force history								
Employed – 1 year ago	0.91	0.28	0.84	0.36	0.74	0.44	0.67	0.47
Employed – 2 years ago (if observed)	0.92	0.28	0.85	0.35	0.75	0.43	0.70	0.46
Employed – 3 years ago (if observed)	0.92	0.27	0.84	0.37	0.75	0.43	0.68	0.47
Total time spent in work (years)	23.43	11.33	17.22	11.04	17.93	10.55	12.76	9.92
Percentage of time spent not in work (0–100)	7.92	13.69	15.06	22.12	24.99	25.34	30.27	29.34
Poverty history								
Poverty – 1 year ago	0.04	0.20	0.10	0.30	0.04	0.21	0.09	0.28
Poverty – 2 years ago (if observed)	0.04	0.19	0.08	0.28	0.04	0.21	0.09	0.29
Poverty – 3 years ago (if observed)	0.04	0.20	0.07	0.26	0.04	0.21	0.09	0.28
Partner's labour force status—1 year ago								
Employed	0.73	0.44	0.63	0.48	0.83	0.37	0.76	0.43
Unemployed	0.02	0.14	0.05	0.22	0.02	0.13	0.06	0.23
Out of the labour force	0.22	0.42	0.29	0.45	0.09	0.29	0.11	0.31
Missing	0.02	0.15	0.04	0.19	0.05	0.23	0.08	0.27
Panel B: additional information (prior to separation—1 year ago)								
Weekly wage in main job in 2021 dollars (if employed)	1583	1226	1368	1028	1001	761	921	643
Weekly working hours in main job (if employed)	43.91	12.05	43.30	12.33	31.23	13.66	31.71	12.50
Unemployed	0.02	0.14	0.05	0.23	0.02	0.14	0.05	0.22
Out of the labour force	0.07	0.25	0.10	0.30	0.24	0.43	0.28	0.45
Poverty	0.04	0.20	0.10	0.30	0.05	0.21	0.09	0.28
Annual equivalised household income in 2021 dollars	66,468	45,471	54,478	31,973	67,057	49,100	54,747	39,509

	Men who remain partnered		Men who separate		Women who remain partnered		Women who separate	
	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.	Mean	Std. err.
Number of observations (events)	43,868		1,068		49,200		1,196	
Number of observations (persons)	5,123		1,068		5,580		1,196	

Notes: Results for partnered men and women aged 15 to 62, whose partner status in the subsequent wave is known. For further sample selection restrictions, see Section 3.1 and for variable definitions, see Appendix A1. Panel A includes variables that are used to balance treated individuals and control individuals on observable pre-separation characteristics. Employment and poverty status 2 years ago (3years ago) were not observed for 10% (18%) of all individuals who remained partnered, and for 12% (21%) of all separating individuals, with minimal differences across gender. In cases with missing variables for these years, dummy variables indicating missing information were used to perform the balancing. Panel B shows additional outcomes observed prior to the event of interest. All results are unweighted and describe the sample of analysis rather than the Australian population.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

4. Results

4.1. Post-separation poverty and employment

Figure 1 presents estimation results of equation (2) for men and women respectively, showing the δ-coefficients on the interaction between the separation-indicator and the set of post-separation period dummies (corresponding tables are available in Appendix A2). All estimations have been performed separately by sex, by sex and presence of children, and for six population groups defined by sex, presence of children and age of children. All estimations use kernel weights to balance treatment and control group in observed characteristics (see Table 2, panel A for a complete list).

For men, there is a modest increase in poverty rate after separation of 5.2 percentage points in the first year decreasing to around 4 percentage points in the second to fourth years. These increases are entirely driven by men who have children at the time of separation. Looking further into the effects of separation by age of the youngest child, we find that the increased poverty risk is larger for men with young children (+7.6 percentage points in the first year , an effect that largely remains for five years with fluctuations) than for men with older children (+6.1 percentage points in the first year only), which is – compared to their pre-separation poverty rates of 10% – substantial.

While these effects on men are by no means small, the increase in poverty rates among women is much larger. Women experience an increase in poverty risk by 12.8 percentage points in the first year, by 8.1 percentage points in the second year, and by 5.4 percentage points in the third to fifth year. The elevated poverty risk is more prominent for women with pre-school children in the first year after separation (+19.9 percentage points), but in years 3 to 5, it is similar to the impact experienced by women with older children or without children (and no longer significant). Although, in contrast, women without children and women with older children start out with a smaller effect of separation on poverty of 8.9 percentage points and 10.1 percentage points, respectively, in the first year after separation, this added poverty risk is persistent with a 5 percentage point additional risk remaining after four to five years for both groups. It appears that many women with young children at separation face very high but temporary hurdles to achieving higher household income, plunging them deeply into poverty immediately after the family breakup but with access to an exit path in the short- to medium-term for most of them. Women without children or with older children, on the other hand, are less likely to fall into poverty in the first place, but if they do, they are less likely to escape with

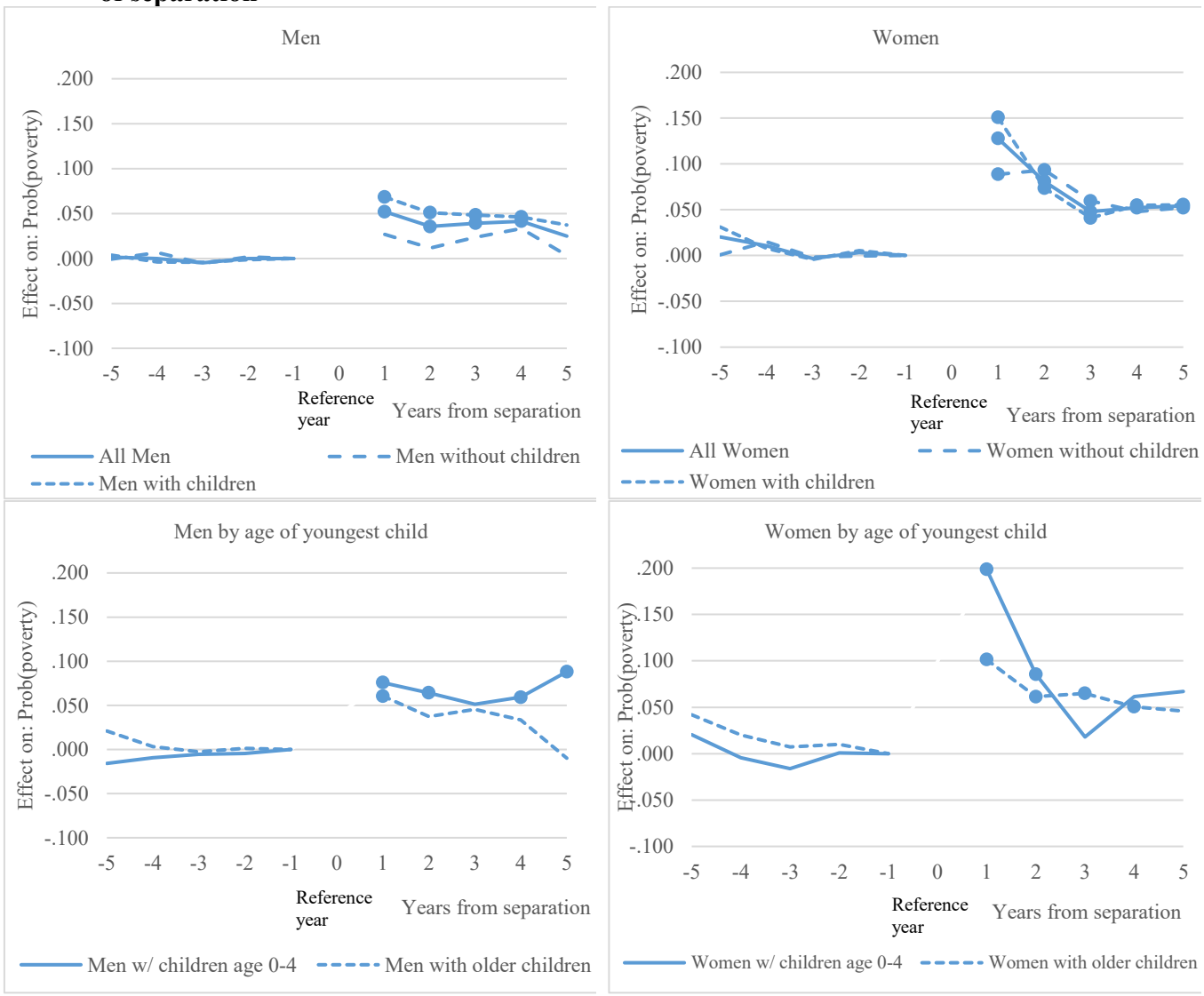
most of them still in poverty after four years. This could be the case if women with very young children have difficulty finding employment until the children age out of the most intensive childcare needs when they begin school; while women without dependent children or with older dependent children, might be more likely to face difficulties in the labour market because the women are older and have had a longer history of gendered division of labour and associated career breaks due to caring responsibilities.

Difficulties in re-entering employment would apply to fewer women in the group with older children (namely only those who had not returned to work yet at the time of separation) than for women with young children, but for the women it does apply to, there is no immediate mechanism that would provide relief as time passes. In Section 4.2, we explore in more detail the role of employment and past employment history in escaping separation-induced poverty. Alternatively, re-partnering decisions could play a role in women escaping poverty caused by separation, which might be faster for women with younger children than for women with older children or without dependent children. Investigating the latter is out of scope for this paper.

These effects echo the many studies from around the world that focus on average income and consistently find a moderate negative financial impact of separation on men, and a large negative financial impact on women – especially in the early years after separation and when young children are present. This common finding of a decrease in average income is also present at the lower end of the income distribution, where a social policy response to alleviate this outcome is most needed.

In addition to estimating the effect of separation on post-separation outcomes in periods t+1 to t+5, we also checked if the common trend assumption holds by estimating the "effect" of separation on pre-separation outcomes in period t-5 to t-2. We find no systematic differences in pre-separation poverty or employment for five years to two years prior to separation between separating and non-separating individuals (none of 80 pre-separation coefficients is significant). This supports our choice for the kernel-weighted estimator as the preferred specification.

Figure 1 Trajectories in poverty before and after separation – weighted D-i-D estimators of the effect of separation



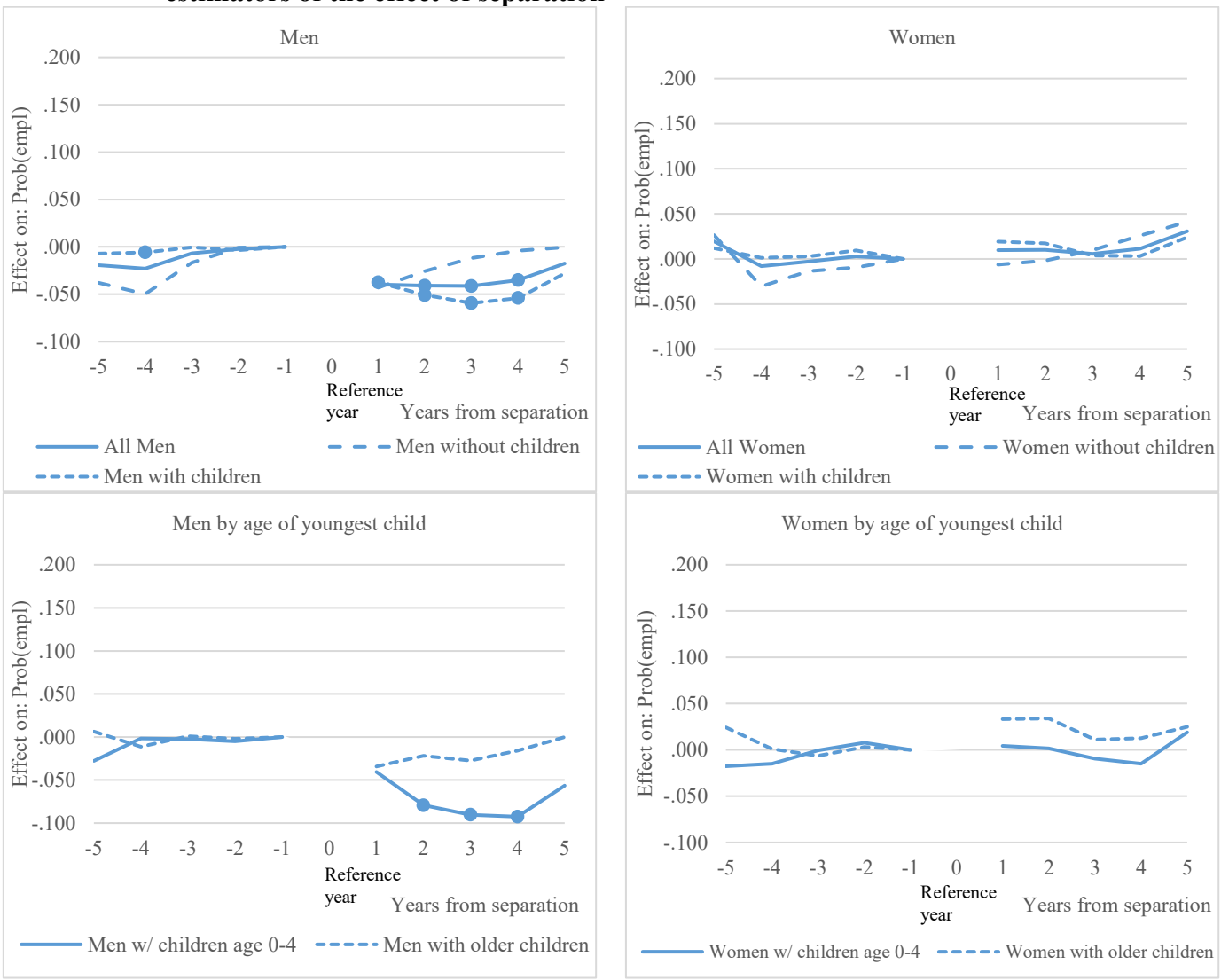
Notes: Results for linear probability models with poverty as the dependent variable are shown. Results for all men and women, and results for men and women by presence of children, or by presence and age of children were estimated separately. Men and women in couples separating between t and t+1 (0 and 1 on the x-axis) are the "treated" group while men and women staying together are the "control" group. Impacts on poverty rates relative to the year preceding separation (t-1) are estimated from 1 to 5 years after separation (t+1 to t+5) and from 2 to 5 years prior to separation (t-5 to t-2). The graphs show the coefficient on the interaction of the period-dummies with the "treatment" dummy. The model controls for age, education, health, migrant status, previous relationships and relationship duration, past economic outcomes, labour market history and partner's labour market history by assigning higher weights to control individuals who are more similar to treated individuals in these characteristics. Where a point estimate is significant at the 5%-level, it is marked with a dot. p-values have been adjusted for multiple hypothesis testing within each group using the Šidák correction (Šidák, 1967). Exact point estimates, p-values and number of observations are included in Tables A2.1 and A2.2 in Appendix A2.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

The effects of separation on the probability of employment show reduced employment for men following a separation. This effect is mostly driven by men with children below school age (see Appendix Table A2.3), for whom large negative employment effects are noticeable in years 2 to 4 after separation. This could be connected to care provided to their young children; while the majority of care after separation is provided by mothers (with father's care share ranging from 28% to 32% of the child's time in the first five years after separation), the care provided by fathers is still substantial, and increases with time after separation as the children grow out of the very early years. Increasing over the five years after separation, 31% to 37% of men with preschool aged children at separation, provide at least five days of care per fortnight. This could plausibly cause a reduction in the employment gap between men and women that existed before separation. There is no impact on the hours in employment for men, (see Appendix Table A2.7), which is consistent with the results in Appendix Table A2.5 suggesting there is also no impact on wages for men.

None of the employment effects are significant for women (see Appendix table A2.4). This is somewhat surprising given the large impact of separation on poverty for women, and it may indicate the existence of hurdles on the way to (increased) labour force participation. This result is in contrast to, for example, Bonnet et al. (2021) who found that separation induced a large labour market response. It is in line with Van Damme et al. (2009) who found small impacts of separation on labour supply, with substantial variation by institutional context.

However, in terms of hours worked there appears to be a small increase of up to 4 hours per week in employment for women without children after separation (see Appendix Table A2.8), suggesting an increase in hours worked for the women who were already employed. Appendix Table A2.6 suggests there is a modest positive impact on wages for women without children; this is aligned with the small increase in hours. The increase in weekly wages for years 2 to 4 after separation is about 10 to 12% of baseline earnings of separating women in the year prior to separation. These results show a similar pattern but are smaller in magnitude than results in Tamborini et al. (2015) for example, who found an increase in lifetime earnings of 20 to 28% for divorced women. However, they also found that the impact of separation on labour market outcomes declined substantially over time. Our analysis examines separations that are situated 9 to 22 years later in time than those studied by Tamborini et al. Therefore one obvious possible explanation for the difference in results is that women's financial autonomy prior to separation has improved over time, which is expected to lead to less severe financial impacts and smaller labour market responses.

Figure 2 Trajectories in employment before and after separation – weighted D-i-D estimators of the effect of separation



4.2. The role of female pre-separation employment in post-separation poverty and employment

Although separation does not appear to have a direct effect on employment for women, female pre-separation (non-)employment plays an important role in the impact of separation on poverty as Figure 3 shows (detailed results are reported in Appendix Tables A2.9 and A2.10).

The impact of separation is very large for women who were not employed pre-separation; after separation this group has a 26.7 percentage point higher probability of poverty on average. This result is larger for women with children, who are 28.7 percentage points more likely to be poor after separation, with a smaller impact of 20.6 percentage points for women without children.[15]

[15] This is a small group of 92 women only, due to most women without children being in employment.

The impact is larger for women with pre-school children than for women with older children (at 31.7 versus 22.8 percentage points). The group of women with older children (who were not in employment) is relatively small, so only the impact in the first year after separation is significant for them, while for women with pre-school children the impact is significant in the first two years, but halved in the second year. For the women without children the impact hardly decreases in size over time, although impacts are no longer significant after year 2. Combining all women, estimated impacts are significant for up to five years and still sizable at 11.1 percentage points, which is close to the insignificant impacts for the various groups separately.

The impacts for women who were employed before separation are much smaller and shorter-lasting. For women without children, a significant increase in poverty of 6.2 percentage point is estimated in the first year and 5.9 percentage points in the second year. The estimated impact for women with children is similar at 6.8 percentage points and only significant in the first year after separation. When estimating the effects for women with pre-school and older children separately, the impact in the first year is significant at 7.7 percentage points for women with pre-school children and at 6.2 percentage points for women with older children. Although the sample size of this group is more than double the size of the group of women who were not employed pre-separation, only for women with older children and when all women are combined is the effect on poverty significant for up to 3 years (at 4.8 and 3.2 percentage points respectively). These results indicate that employment is an effective protection against poverty in the event of a separation. Like Bonnet et al. (2021), who employed a similar methodology as in this paper, we find economic autonomy prior to separation to be an extremely important mediating factor in determining the impact of separation on women's financial well-being.

The results reported in Appendix Table A2.13 and A2.14 show no impact of separation on employment regardless of whether women were employed before separation or not.[16] This reinforces the earlier finding that there is no response to the high poverty levels after separation in terms of increased employment. This indicates that marital specialisation, reflected in partnered women's low labour market attachment, is not easily overcome after the relationship ends.

[16] This interpretation of estimated employment impacts of separation by pre-separation employment status holds for a joint estimation for all women (regardless of the presence of children or the youngest child's age). Some of the estimations by subgroup result in large but still insignificant estimated coefficients, as sample sizes become very small. These estimations should be thought of as inconclusive due to lacking statistical power.

Figure 3 Trajectories in poverty before and after separation – Women, by pre-separation employment status

Notes: See notes to Figure 1. This Figure shows analogous results for women, by their own employment status 1 year prior to the point of separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Figure 4 Trajectories in poverty before and after separation – Men, by previous partner's pre-separation employment status

Notes: See notes to Figure 1. This Figure shows analogous results for men, by their previous partner's employment status 1 year prior to the point of separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

We also investigated the impact of separation on poverty for men by their partners' employment before separation (see Figure 4 and Appendix Tables A2.11 and A2.12). The results differ to some extent between men whose partner was in paid employment before separation and men whose partner was not in paid employment, but not as dramatically as for women. For men partnered to women who were not employed before separation, none of the impacts on poverty are significant (and negative on average for men without children in all years after separation, but positive for men with children, especially young children). For men with partners who were employed before separation, there was an estimated increase in poverty of 5.1 percentage points in the first year which decreased to around 3.5 percentage points in years 4 and 5 after separation. This increase appears to be mostly driven by men with older children who are estimated to experience an 8.5 percentage point increase in poverty in the first year after separation, and between 5 and 8 percentage points in later years. Perhaps surprisingly, these differences by partner's pre-separation employment do not seem to be driven by differences in post-separation care shares for these groups: men whose partners were employed before separation are no more or less likely to take on a substantial share of care for their joint children (and also do not provide a higher share of care on average) than fathers whose partners were not employed. Although mostly insignificant for other men, all estimated impacts are positive. The impacts on poverty for men whose partner was employed before separation are similar to the impacts for women who were employed before separation, indicating there is a more equal impact on poverty for these men and women. Again, this aligns with the finding by Bonnet et al. (2021) who found that couples with similar earnings prior to divorce, experience similar declines in financial well-being after a divorce.

The impacts on employment for men partnered with women who were not employed before separation are nearly all insignificant, small and negative (Appendix Table A2.15). Men whose partners were employed before separation are on average 5 percentage points less likely to be employed in the first two years after separation. For men without children, employment impacts are insignificant, while for men with children there is a significant negative effect in all but one year after separation of around 4 to 6 percentage points. Therefore, the decrease in employment for men with children observed in Section 4.1 seems to have been mostly driven by men whose partners were in employment before separation, which may then be linked to the increase in

poverty. However, this increase in poverty may have been aggravated by the loss of the partner's income as well while still sharing in the care for the children. [17]

4.3. Sensitivity of results to the use of alternative samples

We first check whether selecting a slightly smaller samples changes the results. Given the potential impact of COVID-19 on poverty and/or employment outcomes, we re-estimate the models using Wave 1 to Wave 19 data only, excluding observations from 2020 and 2021. The results on poverty are qualitatively the same as in the base model (Appendix Tables A3.1 and A3.2), but show slightly larger impacts on poverty for most groups of men and women. This is possibly due to leaving out 2020 and 2021 post-separation results when income support was substantially more generous and when JobKeeper payments may have lifted the income of low-income workers. However, the observed differences are very small and sometimes the other way around. Similar to the base model results, none of the estimated impacts on employment are significant for women in the model based on data up to 2019 (Appendix Table A3.4). Although the results for men's employment vary slightly more from the baseline results than the results for women (and more than the results for poverty), the estimated impacts are still very similar with some of these weaker than the baseline results and others stronger (Appendix Table A3.3). The results for men with pre-school children, in particular, are weaker than the baseline impacts (sometimes in size of the impact and sometimes in the strength of significance).

A second, smaller sample selection change involves completely removing partnered individuals from the sample of analysis, where one partner has been widowed during the observation period. That is, this group no longer is in the at-risk group of separation or potentially part of the control group. As it only affects a small number of couples, the impact on the results is minimal. Coefficients and significance based on the alternative sample remain very similar to the base model results on poverty and employment for men and women (Appendix Tables A3.1 to A3.4).

Overall we conclude that the results are robust to these alternative specifications.

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[17] We also explored whether the increased poverty was due to larger shares of caring for children for this group (thus reducing the level of equivalised household income). However, the care shares of men (with older children) who separated from a partner who was employed before separation show higher care shares for men who had a non-employed partner than men who had an employed partner. There is some evidence of higher care shares for men with preschool children who had an employed partner, but this group appears to experience zero impact of separation on poverty.

5. Conclusion

This paper has examined how men's and women's trajectories in terms of financial well-being (specifically, their poverty risk) and labour market outcomes change when they separate, compared to similar couples who stayed together. Our results show a substantial increase in poverty risk for men and a much larger increase in poverty risk for women. This is very much in line with many studies from around the world that cover many decades and have focussed mostly on changes in average income showing moderate losses for men and larger losses for women. The poverty risk for women is strongly connected to their family situation: women without children at the time of separation are less adversely affected than women with children are, and in the short-term the impacts are most severe for women with preschool children and hence high caring responsibilities, and smaller but longer-lasting for women with older children whose caring responsibilities at the time of separation are lower, but whose labour market attachment may have been weak over a longer time period. Our results rely on a difference-in-difference estimator combined with analytical weights that balance control group (couples that stay together) and treatment group (couples that separate) in many observable characteristics including their long- and medium-term labour market history. We also accounted for anticipation effects by leaving out the observations immediately preceding separation. The immediate implication of this central result is that social policy makers need to continue to be aware of family breakdown as an important cause of childhood and single parents' poverty, and of women's poverty in old-age, and design appropriate policies in response.

Second, we find that women who were employed prior to separation are much less likely to suffer these negative impacts than those who were not, experiencing a still substantial but much more moderate increase in poverty risk. In fact, women who were employed prior to separation have very similar poverty trajectories after separation as men. This highlights the protective effect of economic autonomy, and the risk that is inherent in strong marital specialisation if the relationship breaks down. Policymakers need to continue to highlight this insurance effect of maintaining economic autonomy to men and women, and ensure both men and women can combine paid work and unpaid care.

Third, we find that a separation induces only very small responses in women's labour supply behaviour: there is virtually no impact on employment, and only small increases in weekly wages and weekly working hours among employed women (and the small increases along the intensive margin of labour supply are concentrated among women without children). Again, this speaks to the importance of the insurance effect of maintaining economic autonomy: once

a woman has lost economic autonomy while in a partnership, it is difficult to regain even when the partnership dissolves. Policy needs to support women (and men) in avoiding economic dependence at every life stage rather than attempt to cure it after the financial stability provided by the partnership has already been lost.

And finally, we find that even for employed women and men, the increase in poverty after separation is, although moderate, by no means negligible. Separation directly causes poverty in nearly one in twenty employed women and men. It is the loss of economies of scale that induces poverty, especially in couples who could maintain one household, but not two separate households above the poverty line on their combined income. Previous research has shown the importance of child support payments for lifting Australian lone mothers above the poverty line (Skinner et al. 2017). However, when both previous partners are thrown into poverty, a transfer from one household to the other can only shift the problem, rather than solve it. For this group of couples, there is limited room to increase their earnings to solve the problem. This directly implies that financial assistance will always be needed for a substantial minority of separating families, if we want to prevent childhood poverty.

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Appendix A: Technical appendix

A1 Key variable definitions

A number of key variables in the analysis are defined below:

Couple: two individuals *i* and *j* living in the same household with personal IDs and partner IDs such that *i*'s partner ID is *j*'s personal ID and vice versa.

Partnered individual: one of the two members of a couple.

Separation: The event of a separation is determined primarily on recorded IDs and partner IDs, and where this is not possible, on self-reported marital status. While two individuals report a matching pair of ID and partner ID, the couple relationship is intact. Individual *i* experiences a separation, if *i* forms a couple with individual *j* in Wave *t,* both *i* and *j* survive until wave *t*+1, and in wave *t*+1 individual *i* either

- forms a couple with a different individual *k,* living with them in the same household, or
- does not form a couple with any individual and has changed their current marital status from *legally married* or in a *de facto relationship* to *separated*, *divorced*, or *never married and not de facto*.[18] Individuals who change their status from *legally married* or in a *de facto relationship* to *widowed,* have not experienced a separation and are removed from the pool at risk of separation in the following wave.

Dependent children: any child who is resident with their parent or guardian and aged 15 or under, or who is resident with their parent or guardian, enrolled in full-time education and aged 24 or under. Includes biological children, adopted children, step-children and foster children.

Weekly wage: current usual weekly gross wages/salary from main job. If the individual only provided wages/salary after deductions were taken out, gross wages/salary were calculated using the current tax scale.[19]

Weekly hours: hours per week usually worked in main job.

Labour force status: individuals are classified as employed, unemployed or out of the labour force according to the definitions used by the Australian Bureau of Statistics (2001). Persons

[18] Former couples who are now living in separate households but still consider themselves married or in a de facto relationship, have thus not (yet) experienced a separation.

[19] Missing values were imputed (see Summerfield et al. (2021) for details on the imputation method). Very high wages were top-coded.

in *employment* are those of working age who were engaged in any activity to produce goods or provide services for pay or profit, or without pay in a family business or on a farm, for at least one hour in the reference week.[20] *Unemployed* persons are persons of working age who are not in employment in the survey week, and who a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and were available for work in the survey week, or b) were waiting to start a new job within four weeks from the survey week, and could have started earlier if the job had been available. Persons out of the labour force include everyone who is neither employed nor unemployed.

Total time spent in work/percentage of time spent out of work: HILDA records the total time (years and months) since a respondent first left full-time education after age 15, and how much of that time was spent employed, unemployed or out of the labour force. Total time spent in work is the sum of time spent employed (months and years) and is intended to measure skills accumulation and connectedness to the labour market. Percentage of time spent out of work is the total time in unemployment or out of the labour force, relative to the total time since leaving full-time education. This is intended to measure potential skill depreciation.

Household income: total, disposable, equivalised, inflated income in the last financial year, added up for all members of the household. It includes regular wages and salaries, business income, investment income, private pensions, private transfers including child support (received and paid), Australian government income support payments and non-income support payments, foreign pensions, and irregular income as well as taxes paid in the financial year prior to the interview. Total disposable income is then equivalised to make it comparable across households of different sizes, using the OECD equivalence scale as developed by Hagenaars et al. (1994).[21] Equivalised total disposable income is inflated to 2021 values using the Consumer Price Index, September values (Australian Bureau of Statistics, 2021).

Poverty: to calculate the poverty threshold, household income as defined above is determined for all households in the HILDA data in any given wave (not restricted to households included in the sample of analysis). The poverty threshold for a given interview year is set to half the median household income. Poverty is a 0/1 variable that indicates whether an individual *i* lived

[20] This includes persons in employment who are temporarily absent from work (e.g., due to annual leave, sick leave, shift work or flex time, or maternity leave).

[21] A weight of one is assigned to the first adult in the household, a weight of 0.5 to every further adult in the household and a weight of 0.3 to every child below age 15 in the household.

in a household with a total disposable equivalised inflated household income below the so-defined poverty threshold.

A2 Tables with additional details on results presented in Figure 1 to Figure 4

Table A2.1 Trajectories in poverty before and after separation – weighted D-i-D estimators of the effect of separation – Men

	Whole sample			**By presence of children**					
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	0.002	1.000		-0.001	1.000		0.004	1.000	
4 years before separation	0.000	1.000		0.006	1.000		-0.004	1.000	
3 years before separation	-0.005	0.975		-0.005	0.994		-0.004	1.000	
2 years before separation	0.000	1.000		0.002	1.000		-0.002	1.000	
1 year after separation	0.052	0.000	***	0.027	0.223		0.068	0.000	***
2 years after separation	0.036	0.016	*	0.011	0.987		0.051	0.008	**
3 years after separation	0.039	0.003	**	0.024	0.844		0.048	0.014	*
4 years after separation	0.041	0.002	**	0.033	0.531		0.046	0.014	*
5 years after separation	0.025	0.268		0.004	1.000		0.037	0.254	
Number of separated individuals in sample	1068			417			651		
Number of non-separated individuals in sample	43862			17597			26265		
	By presence and age of children								
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-0.001	1.000		-0.016	1.000		0.021	0.963	
4 years before separation	0.006	1.000		-0.009	1.000		0.003	1.000	
3 years before separation	-0.005	0.994		-0.005	1.000		-0.003	1.000	
2 years before separation	0.002	1.000		-0.004	1.000		0.001	1.000	
1 year after separation	0.027	0.223		0.076	0.004	**	0.061	0.004	**
2 years after separation	0.011	0.987		0.064	0.023	*	0.037	0.403	
3 years after separation	0.024	0.844		0.051	0.219		0.045	0.325	
4 years after separation	0.033	0.531		0.059	0.045	*	0.034	0.718	
5 years after separation	0.004	1.000		0.088	0.016	*	-0.010	1.000	
Number of separated individuals in sample	417			332			319		
Number of non-separated individuals in sample	17597			11029			15236		

Notes: Results of linear probability models with poverty as the dependent variable are shown. Results for all men, results by presence of children, and results by presence and age of children were estimated separately. Men in couples separating between t and t+1 are the "treated" group while men staying together are the "control" group. Impacts on poverty rates relative to the year preceding separation (t-1) are estimated from 1 to 5 years after separation (t+1 to t+5) and from 2 to 5 years prior to separation (t-5 to t-2), using a set of nine dummy variables. The table reports the coefficient on the interaction of the period-dummies with the treatment dummy. Significant effects prior to separation (t-5 to t-2) would indicate a violation of the common trends assumption; significant effects after separation represent the impact of separation on economic outcomes. The model controls for age, education, health, migrant status, previous relationships and relationship duration, past economic outcomes, labour market history and partner's labour market history by assigning higher weights to control individuals who are more similar to treated individuals in these characteristics. For detail of the weighting procedure see Appendix A5. ***, ** and * indicate significance at the 0.1%-level, 1%-level and 5%-level. p-values have been adjusted for multiple hypothesis testing within each separate estimation using the Šidák correction.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.2 Trajectories in poverty before and after separation – weighted D-i-D estimators of the effect of separation – Women

	Whole sample			**By presence of children**					
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	0.020	0.641		0.001	1.000		0.031	0.468	
4 years before separation	0.011	0.972		0.015	0.952		0.008	1.000	
3 years before separation	-0.003	0.997		-0.002	1.000		-0.004	0.996	
2 years before separation	0.003	0.989		0.000	1.000		0.005	0.979	
1 year after separation	0.128	0.000	***	0.089	0.000	***	0.151	0.000	***
2 years after separation	0.081	0.000	***	0.093	0.000	***	0.074	0.000	***
3 years after separation	0.048	0.000	***	0.060	0.000	***	0.041	0.046	*
4 years after separation	0.052	0.000	***	0.048	0.059		0.055	0.004	**
5 years after separation	0.054	0.000	***	0.052	0.041	*	0.055	0.007	**
Number of separated individuals in sample	1194			441			753		
Number of non-separated individuals in sample	49154			21359			27795		
	By presence and age of children								
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	0.001	1.000		0.020	0.992		0.042	0.089	
4 years before separation	0.015	0.952		-0.004	1.000		0.020	0.844	
3 years before separation	-0.002	1.000		-0.016	0.358		0.007	0.944	
2 years before separation	0.000	1.000		0.001	1.000		0.010	0.522	
1 year after separation	0.089	0.000	***	0.199	0.000	***	0.101	0.000	***
2 years after separation	0.093	0.000	***	0.086	0.000	***	0.062	0.001	**
3 years after separation	0.060	0.000	***	0.018	0.994		0.065	0.003	**
4 years after separation	0.048	0.059		0.062	0.126		0.051	0.013	*
5 years after separation	0.052	0.041	*	0.067	0.075		0.046	0.081	
Number of separated individuals in sample	441			382			371		
Number of non-separated individuals in sample	21359			11477			16318		

Notes: See Table A2.1. This table shows equivalent results for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.3 Trajectories in employment before and after separation – weighted D-i-D estimators of the effect of separation – Men

	Whole sample			**By presence of children**					
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-.019	.880		-.038	.685		-.007	1.000	
4 years before separation	-.023	.350		-.050	.045	*	-.006	1.000	
3 years before separation	-.007	.776		-.017	.208		.000	1.000	
2 years before separation	-.002	.999		-.001	1.000		-.003	.999	
1 year after separation	-.040	.002	**	-.043	.102		-.038	.057	
2 years after separation	-.041	.007	**	-.026	.746		-.051	.015	*
3 years after separation	-.041	.001	**	-.012	.999		-.059	.000	***
4 years after separation	-.035	.042	*	-.004	1.000		-.054	.017	*
5 years after separation	-.017	.914		-.001	1.000		-.028	.778	
Number of separated individuals in sample	1068			417			651		
Number of non-separated individuals in sample	43862			17597			26265		
	By presence and age of children								
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-.038	.685		-.028	.994		.006	1.000	
4 years before separation	-.050	.045	*	-.002	1.000		-.011	.999	
3 years before separation	-.017	.208		-.002	1.000		.001	1.000	
2 years before separation	-.001	1.000		-.005	1.000		-.002	1.000	
1 year after separation	-.043	.102		-.041	.248		-.034	.558	
2 years after separation	-.026	.746		-.079	.024	*	-.022	.924	
3 years after separation	-.012	.999		-.090	.001	***	-.027	.825	
4 years after separation	-.004	1.000		-.093	.003	**	-.016	.998	
5 years after separation	-.001	1.000		-.057	.342		.000	1.000	
Number of separated individuals in sample	417			332			319		
Number of non-separated individuals in sample	17597			11029			15236		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'employment'.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.4 Trajectories in employment before and after separation – weighted D-i-D estimators of the effect of separation – Women

	Whole sample			**By presence of children**					
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	.019	.925		.026	.926		.012	1.000	
4 years before separation	-.008	.999		-.031	.824		.001	1.000	
3 years before separation	-.003	1.000		-.013	.303		.003	1.000	
2 years before separation	.003	1.000		-.010	.697		.010	.750	
1 year after separation	.010	.990		-.006	1.000		.019	.905	
2 years after separation	.010	.992		-.002	1.000		.017	.921	
3 years after separation	.006	1.000		.010	1.000		.004	1.000	
4 years after separation	.011	.996		.026	.885		.003	1.000	
5 years after separation	.031	.229		.041	.574		.024	.835	
Number of separated individuals in sample	1194			441			753		
Number of non-separated individuals in sample	49154			21359			27795		
	By presence and age of children								
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	.026	.926		-.002	1.000		.024	.985	
4 years before separation	-.031	.824		.004	1.000		-.002	1.000	
3 years before separation	-.013	.303		.007	.999		.000	1.000	
2 years before separation	-.010	.697		.010	.901		.010	.948	
1 year after separation	-.006	1.000		.007	1.000		.031	.615	
2 years after separation	-.002	1.000		.002	1.000		.033	.396	
3 years after separation	.010	1.000		-.009	1.000		.010	1.000	
4 years after separation	.026	.885		-.010	1.000		.010	1.000	
5 years after separation	.041	.574		.022	.997		.022	.978	
Number of separated individuals in sample	441			382			371		
Number of non-separated individuals in sample	21359			11477			16318		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'employment' for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.5 Trajectories in weekly wages before and after separation – weighted D-i-D estimators of the effect of separation – Men

	Whole sample			**By presence of children**					
Effect of separation on weekly wages...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-39.647	.981		-101.843	.443		10.912	1.000	
4 years before separation	-9.861	1.000		-66.443	.823		29.029	.999	
3 years before separation	34.798	.965		-45.062	.978		87.280	.383	
2 years before separation	-1.924	1.000		-41.578	.958		24.416	.999	
1 year after separation	-3.260	1.000		49.306	.925		-36.753	.991	
2 years after separation	-14.825	1.000		47.699	.993		-53.400	.947	
3 years after separation	5.435	1.000		43.114	.997		-16.044	1.000	
4 years after separation	44.414	.986		116.597	.511		2.872	1.000	
5 years after separation	-37.793	.998		61.559	.997		-92.331	.868	
Number of separated individuals in sample	901			360			541		
Number of non-separated individuals in sample	39988			15283			24705		
	By presence and age of children								
Effect of separation on weekly wages...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-101.843	.443		13.008	1.000		-20.181	1.000	
4 years before separation	-66.443	.823		38.483	.999		2.076	1.000	
3 years before separation	-45.062	.978		89.385	.406		76.068	.950	
2 years before separation	-41.578	.958		55.431	.837		-8.933	1.000	
1 year after separation	49.306	.925		22.039	1.000		-95.257	.731	
2 years after separation	47.699	.993		-2.824	1.000		-107.590	.680	
3 years after separation	43.114	.997		-12.233	1.000		-27.684	1.000	
4 years after separation	116.597	.512		-55.588	.996		45.399	1.000	
5 years after separation	61.559	.997		-28.706	1.000		-155.237	.558	
Number of separated individuals in sample	360			270			271		
Number of non-separated individuals in sample	15283			10345			14360		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'weekly wages' (usual weekly earnings in main job) for employed men.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.6 Trajectories in weekly wages before and after separation – weighted D-i-D estimators of the effect of separation – Women

	Whole sample			**By presence of children**					
Effect of separation on weekly wage...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	-42.550	.847		-86.626	.141		-6.942	1.000	
4 years before separation	-27.008	.979		-84.879	.096		17.393	1.000	
3 years before separation	7.772	1.000		7.200	1.000		9.342	1.000	
2 years before separation	-38.450	.496		-46.918	.616		-31.019	.973	
1 year after separation	54.108	.184		67.843	.308		45.763	.724	
2 years after separation	80.718	.016	*	114.515	.005	**	61.961	.525	
3 years after separation	80.928	.012	*	124.165	.017	*	55.469	.624	
4 years after separation	133.508	.000	***	150.355	.008	**	125.773	.017	*
5 years after separation	115.050	.005	**	197.117	.002	**	73.168	.463	
Number of separated individuals in sample	800			347			453		
Number of non-separated individuals in sample	36469			16476			19993		
	By presence and age of children								
Effect of separation on weekly wage...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	-86.626	.141		34.390	1.000		-33.063	.998	
4 years before separation	-84.879	.096		30.920	1.000		9.540	1.000	
3 years before separation	7.200	1.000		-50.231	.998		53.656	.753	
2 years before separation	-46.918	.616		21.876	1.000		-68.630	.262	
1 year after separation	67.843	.308		76.472	.518		23.731	.998	
2 years after separation	114.515	.005	**	128.725	.322		13.689	1.000	
3 years after separation	124.165	.017	*	103.487	.419		18.187	1.000	
4 years after separation	150.355	.008	**	187.034	.056		78.895	.605	
5 years after separation	197.117	.002	**	114.468	.512		42.998	.988	
Number of separated individuals in sample	347			184			269		
Number of non-separated individuals in sample	16476			6891			13102		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'weekly wages' (usual weekly earnings in main job) for employed women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.7 Trajectories in weekly working hours before and after separation – weighted D-i-D estimators of the effect of separation – Men

	Whole sample			**By presence of children**					
Effect of separation on weekly working hours...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-1.129	.342		-2.051	.281		-.399	1.000	
4 years before separation	-.062	1.000		-.787	.993		.424	.999	
3 years before separation	-.474	.989		-1.101	.900		-.056	1.000	
2 years before separation	-.512	.934		-1.037	.781		-.155	1.000	
1 year after separation	-.202	1.000		.199	1.000		-.454	.992	
2 years after separation	-.225	1.000		-.491	.998		-.015	1.000	
3 years after separation	-.749	.815		.101	1.000		-1.266	.294	
4 years after separation	-.625	.915		.665	.993		-1.396	.401	
5 years after separation	-.544	.994		1.014	.971		-1.431	.574	
Number of separated individuals in sample	901			360			541		
Number of non-separated individuals in sample	39988			15283			24705		
	By presence and age of children								
Effect of separation on weekly working hours...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-2.051	.281		-.514	1.000		-.583	.999	
4 years before separation	-.787	.993		.576	.999		.124	1.000	
3 years before separation	-1.101	.900		.573	.998		-.676	.995	
2 years before separation	-1.037	.781		-.214	1.000		-.142	1.000	
1 year after separation	.199	1.000		-.347	1.000		-.564	.997	
2 years after separation	-.491	.998		.694	.999		-.721	.998	
3 years after separation	.101	1.000		-.864	.969		-1.676	.441	
4 years after separation	.665	.993		-2.574	.273		-.380	1.000	
5 years after separation	1.014	.971		-.772	.999		-2.060	.563	
Number of separated individuals in sample	360			270			271		
Number of non-separated individuals in sample	15283			10345			14360		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'weekly working hours' (usual hours in main job) for employed men.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.8 Trajectories in weekly working hours before and after separation – weighted D-i-D estimators of the effect of separation – Women

	Whole sample			**By presence of children**					
Effect of separation on weekly working hours...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	-1.426	.296		-1.863	.423		-1.174	.925	
4 years before separation	-1.096	.531		-1.069	.951		-1.155	.752	
3 years before separation	-.763	.658		-.515	.998		-.915	.901	
2 years before separation	-1.108	.111		-.994	.748		-1.174	.355	
1 year after separation	1.439	.032	*	2.240	.030	*	.903	.856	
2 years after separation	2.227	.001	***	3.428	.000	***	1.425	.458	
3 years after separation	1.841	.011	*	3.548	.000	***	.687	.980	
4 years after separation	2.690	.001	***	3.866	.000	***	1.868	.242	
5 years after separation	2.415	.002	**	3.493	.002	**	1.663	.425	
Number of separated individuals in sample	800			347			453		
Number of non-separated individuals in sample	36469			16476			19993		
	By presence and age of children								
Effect of separation on weekly working hours...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	-1.863	.423		-1.107	.999		-1.031	.948	
4 years before separation	-1.069	.951		-.918	.997		-1.265	.647	
3 years before separation	-.515	.998		-2.325	.318		.098	1.000	
2 years before separation	-.994	.748		-1.055	.953		-1.235	.499	
1 year after separation	2.240	.030	*	2.327	.171		-.112	1.000	
2 years after separation	3.428	.000	***	1.861	.588		1.082	.937	
3 years after separation	3.548	.000	***	.737	.998		.509	.999	
4 years after separation	3.866	.000	***	2.218	.623		1.458	.672	
5 years after separation	3.493	.002	**	1.646	.920		1.672	.674	
Number of separated individuals in sample	347			184			269		
Number of non-separated individuals in sample	16476			6891			13102		

Notes: See Table A2.1. This table shows equivalent results for the outcome 'weekly working hours' (usual hours in main job) for employed women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.9 Trajectories in poverty before and after separation – Women who were not employed before separation

Whole sample: Women who were not employed prior to point of separation									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	.011	1.000		-.016	1.000		.019	1.000	
4 years before separation	.016	1.000		-.037	1.000		.034	.970	
3 years before separation	-.017	.940		-.026	.998		-.015	.974	
2 years before separation	.010	.998		-.015	1.000		.017	.935	
1 year after separation	.267	.000	***	.206	.003	**	.287	.000	***
2 years after separation	.148	.000	***	.193	.017	*	.134	.000	***
3 years after separation	.075	.077		.148	.323		.053	.492	
4 years after separation	.099	.018	*	.141	.297		.085	.066	
5 years after separation	.111	.007	**	.150	.274		.100	.066	
Number of separated individuals in sample	380			92			288		
Number of non-separated individuals in sample	12642			4870			7772		
By presence and age of children									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	-.016	1.000		.012	1.000		.033	.999	
4 years before separation	-.037	1.000		.017	1.000		.062	.956	
3 years before separation	-.026	.998		-.028	.855		.006	1.000	
2 years before separation	-.015	1.000		.025	.873		.003	1.000	
1 year after separation	.206	.003	**	.317	.000	***	.228	.003	**
2 years after separation	.193	.018	*	.148	.002	**	.107	.181	
3 years after separation	.148	.323		.029	.988		.096	.497	
4 years after separation	.141	.298		.087	.146		.085	.544	
5 years after separation	.150	.275		.097	.067		.107	.598	
Number of separated individuals in sample	92			190			98		
Number of non-separated individuals in sample	4870			4567			3205		

Notes: See Table A2.1. This table shows equivalent results for women who were not employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.10 Trajectories in poverty before and after separation – Women who were employed before separation

Whole sample: Women who were employed prior to point of separation									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	.019	.452		.004	1.000		.029	.346	
4 years before separation	.016	.593		.027	.536		.007	.999	
3 years before separation	.002	1.000		.002	1.000		.002	1.000	
2 years before separation	.004	.916		.001	1.000		.005	.967	
1 year after separation	.065	.000	***	.062	.000	***	.068	.000	***
2 years after separation	.047	.007	**	.059	.049	*	.036	.119	
3 years after separation	.032	.021	*	.036	.088		.028	.167	
4 years after separation	.026	.099		.027	.412		.024	.475	
5 years after separation	.027	.130		.030	.304		.026	.551	
Number of separated individuals in sample	795			347			448		
Number of non-separated individuals in sample	36460			16471			19989		
By presence and age of children									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	.004	1.000		.010	1.000		.040	.203	
4 years before separation	.027	.536		.005	1.000		.009	.998	
3 years before separation	.002	1.000		-.006	1.000		.006	.943	
2 years before separation	.001	1.000		.006	1.000		.005	.980	
1 year after separation	.062	.000	***	.077	.023	*	.062	.002	**
2 years after separation	.059	.049	*	.022	.977		.046	.069	
3 years after separation	.036	.088		-.003	1.000		.048	.013	*
4 years after separation	.027	.412		.024	.943		.025	.566	
5 years after separation	.030	.304		.032	.796		.022	.792	
Number of separated individuals in sample	347			179			269		
Number of non-separated individuals in sample	16471			6887			13102		

Notes: See Table A2.1. This table shows equivalent results for women who were not employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.11 Trajectories in poverty before and after separation – Men whose partners were not employed before separation

Whole sample: Men whose partners were not employed prior to point of separation									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-.008	1.000		-.015	1.000		-.006	1.000	
4 years before separation	.005	1.000		-.011	1.000		.011	1.000	
3 years before separation	-.017	.955		-.025	.993		-.014	.995	
2 years before separation	-.006	1.000		-.005	1.000		-.006	1.000	
1 year after separation	.040	.620		-.038	.991		.069	.173	
2 years after separation	.033	.758		-.047	.964		.060	.190	
3 years after separation	.017	.998		-.028	.999		.032	.963	
4 years after separation	.045	.802		.016	1.000		.055	.697	
5 years after separation	.013	1.000		-.046	.985		.033	.951	
Number of separated individuals in sample	393			105			288		
Number of non-separated individuals in sample	11708			4010			7698		
By presence and age of children									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-.015	1.000		-.015	1.000		.007	1.000	
4 years before separation	-.011	1.000		-.004	1.000		.033	.997	
3 years before separation	-.025	.993		-.019	.998		-.005	1.000	
2 years before separation	-.005	1.000		-.021	.973		.017	.997	
1 year after separation	-.038	.991		.100	.146		.018	1.000	
2 years after separation	-.047	.964		.075	.201		.039	.987	
3 years after separation	-.028	.999		.054	.850		-.001	1.000	
4 years after separation	.016	1.000		.083	.404		.013	1.000	
5 years after separation	-.046	.985		.083	.393		-.038	.997	
Number of separated individuals in sample	105			177			111		
Number of non-separated individuals in sample	4010			4505			3193		

Notes: See Table A2.1. This table shows equivalent results for men whose previous partners were not employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.12 Trajectories in poverty before and after separation – Men whose partners were employed before separation

Whole sample: Men whose partners were employed prior to point of separation									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	.009	.983		.006	1.000		.011	.994	
4 years before separation	-.006	.998		.008	1.000		-.018	.471	
3 years before separation	-.006	.740		-.001	1.000		-.011	.543	
2 years before separation	-.003	.978		.001	1.000		-.006	.914	
1 year after separation	.051	.000	***	.038	.083		.063	.000	***
2 years after separation	.035	.000	***	.027	.280		.043	.020	*
3 years after separation	.049	.000	***	.036	.332		.060	.005	**
4 years after separation	.036	.026	*	.036	.122		.035	.302	
5 years after separation	.034	.033	*	.024	.827		.043	.208	
Number of separated individuals in sample	670			311			359		
Number of non-separated individuals in sample	31968			13577			18391		
By presence and age of children									
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	.006	1.000		-.038	.147		.040	.391	
4 years before separation	.008	1.000		-.036	.204		-.006	1.000	
3 years before separation	-.001	1.000		-.021	.346		-.003	1.000	
2 years before separation	.001	1.000		-.018	.228		.002	1.000	
1 year after separation	.038	.083		.032	.745		.085	.000	***
2 years after separation	.027	.280		.037	.613		.048	.143	
3 years after separation	.036	.332		.033	.899		.080	.003	**
4 years after separation	.036	.122		.005	1.000		.056	.109	
5 years after separation	.024	.827		.079	.154		.019	.988	
Number of separated individuals in sample	311			152			207		
Number of non-separated individuals in sample	13577			6358			12033		

Notes: See Table A2.1. This table shows equivalent results for men whose previous partners were employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.13 Trajectories in employment before and after separation – Women who were not employed before separation

Whole sample: Women who were not employed prior to point of separation									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	.009	1.000		.040	.996		-.004	1.000	
4 years before separation	-.002	1.000		-.037	.998		.007	1.000	
3 years before separation	.008	.999		-.031	.947		.020	.683	
2 years before separation	.007	.998		-.019	.999		.015	.793	
1 year after separation	-.004	1.000		-.092	.517		.024	.996	
2 years after separation	.016	1.000		-.076	.885		.044	.868	
3 years after separation	-.003	1.000		-.126	.245		.036	.903	
4 years after separation	-.006	1.000		-.100	.406		.024	.999	
5 years after separation	.015	1.000		-.118	.252		.055	.853	
Number of separated individuals in sample	380			92			288		
Number of non-separated individuals in sample	12642			4870			7772		
By presence and age of children									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	.040	.996		-.018	1.000		.024	1.000	
4 years before separation	-.037	.998		.002	1.000		.025	1.000	
3 years before separation	-.031	.947		.018	.951		.023	.963	
2 years before separation	-.019	.999		.009	.999		.026	.888	
1 year after separation	-.092	.518		.007	1.000		.059	.975	
2 years after separation	-.076	.885		-.001	1.000		.132	.297	
3 years after separation	-.126	.246		-.012	1.000		.112	.456	
4 years after separation	-.100	.406		-.032	.998		.112	.746	
5 years after separation	-.118	.252		.032	.998		.089	.873	
Number of separated individuals in sample	92			190			98		
Number of non-separated individuals in sample	4870			4567			3205		

Notes: See Table A2.3. This table shows equivalent results for women who were not employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.14 Trajectories in employment before and after separation – Women who were employed before separation

Whole sample: Women who were employed prior to point of separation									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women			*Women without children*			*Women with children*		
5 years before separation	-.002	1.000		.005	1.000		-.009	1.000	
4 years before separation	-.030	.179		-.036	.364		-.027	.843	
3 years before separation	-.010	.391		-.007	.976		-.012	.732	
2 years before separation	-.006	.720		-.008	.763		-.005	.978	
1 year after separation	.006	.996		.003	1.000		.008	.998	
2 years after separation	.001	1.000		.006	1.000		-.003	1.000	
3 years after separation	.001	1.000		.030	.819		-.022	.853	
4 years after separation	.018	.968		.048	.525		-.007	1.000	
5 years after separation	.034	.410		.068	.112		.007	1.000	
Number of separated individuals in sample	795			347			448		
Number of non-separated individuals in sample	36460			16471			19989		
By presence and age of children									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women without children			*Women with children below school age (0-4 years)*			*Women with older children*		
5 years before separation	.005	1.000		-.008	1.000		-.008	1.000	
4 years before separation	-.036	.364		-.042	.953		-.018	.995	
3 years before separation	-.007	.976		-.009	.996		-.014	.799	
2 years before separation	-.008	.763		-.006	1.000		-.005	.996	
1 year after separation	.003	1.000		.021	.987		.000	1.000	
2 years after separation	.006	1.000		.012	1.000		-.015	.994	
3 years after separation	.030	.819		-.004	1.000		-.036	.668	
4 years after separation	.048	.525		.039	.859		-.036	.740	
5 years after separation	.068	.112		.040	.945		-.015	.998	
Number of separated individuals in sample	347			179			269		
Number of non-separated individuals in sample	16471			6887			13102		

Notes: See Table A2.3. This table shows equivalent results for women who were employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.15 Trajectories in employment before and after separation – Men whose partners were not employed before separation

Whole sample: Men whose partners were not employed prior to point of separation									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-.034	.958		-.107	.823		-.008	1.000	
4 years before separation	-.044	.619		-.169	.019	*	.003	1.000	
3 years before separation	-.005	1.000		-.011	1.000		-.003	1.000	
2 years before separation	-.005	1.000		-.004	1.000		-.006	1.000	
1 year after separation	-.029	.859		-.042	.972		-.024	.984	
2 years after separation	-.045	.375		-.034	.996		-.049	.624	
3 years after separation	-.074	.054		-.018	1.000		-.094	.029	*
4 years after separation	-.068	.207		-.091	.669		-.060	.513	
5 years after separation	-.037	.898		-.069	.890		-.028	.995	
Number of separated individuals in sample	393			105			288		
Number of non-separated individuals in sample	11708			4010			7698		
By presence and age of children									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-.107	.823		-.036	.989		.026	1.000	
4 years before separation	-.169	.019	*	-.006	1.000		.012	1.000	
3 years before separation	-.011	1.000		-.001	1.000		-.005	1.000	
2 years before separation	-.004	1.000		-.006	1.000		-.006	1.000	
1 year after separation	-.042	.972		-.042	.954		.005	1.000	
2 years after separation	-.034	.996		-.096	.073		.024	1.000	
3 years after separation	-.018	1.000		-.146	.000	***	-.013	1.000	
4 years after separation	-.091	.669		-.109	.076		.016	1.000	
5 years after separation	-.069	.890		-.052	.922		.010	1.000	
Number of separated individuals in sample	105			177			111		
Number of non-separated individuals in sample	4010			4505			3193		

Notes: See Table A2.3. This table shows equivalent results for men whose previous partners were not employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A2.16 Trajectories in employment before and after separation – Men whose partners were employed before separation

Whole sample: Men whose partners were employed prior to point of separation									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men			*Men without children*			*Men with children*		
5 years before separation	-.024	.858		-.023	.987		-.020	.941	
4 years before separation	-.018	.826		-.018	.984		-.017	.957	
3 years before separation	-.004	.998		-.007	.952		-.001	1.000	
2 years before separation	-.003	.999		-.005	.919		.000	1.000	
1 year after separation	-.049	.000	***	-.045	.082		-.053	.006	**
2 years after separation	-.045	.005	**	-.030	.578		-.059	.020	*
3 years after separation	-.029	.303		-.013	.998		-.041	.163	
4 years after separation	-.031	.138		.013	.996		-.067	.006	**
5 years after separation	-.019	.838		.013	1.000		-.045	.034	*
Number of separated individuals in sample	670			311			359		
Number of non-separated individuals in sample	31968			13577			18391		
By presence and age of children									
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men without children			*Men with children below school age (0-4 years)*			*Men with older children*		
5 years before separation	-.023	.987		-.023	.992		-.019	.992	
4 years before separation	-.018	.984		-.003	1.000		-.026	.948	
3 years before separation	-.007	.952		.006	1.000		-.006	.999	
2 years before separation	-.005	.919		-.002	1.000		.001	1.000	
1 year after separation	-.045	.082		-.031	.896		-.069	.008	**
2 years after separation	-.030	.578		-.063	.341		-.056	.205	
3 years after separation	-.013	.998		-.023	.993		-.055	.204	
4 years after separation	.013	.996		-.084	.199		-.054	.294	
5 years after separation	.013	1.000		-.059	.445		-.035	.730	
Number of separated individuals in sample	311			152			207		
Number of non-separated individuals in sample	13577			6358			12033		

Notes: See Table A2.3. This table shows equivalent results for men whose previous partners were employed prior to separation.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

A3 Sensitivity Checks

Table A3.1 Trajectories in poverty before and after separation – Men – comparison of different sample definitions

	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men								
5 years before separation	.006	1.000		.002	1.000		.002	1.000	
4 years before separation	.001	1.000		.000	1.000		.000	1.000	
3 years before separation	-.007	.739		-.005	.833		-.005	.975	
2 years before separation	.000	1.000		.000	1.000		.000	1.000	
1 year after separation	.058	.000	***	.052	.000	***	.052	.000	***
2 years after separation	.035	.045	*	.036	.011	*	.036	.016	*
3 years after separation	.044	.004	**	.039	.002	**	.039	.003	**
4 years after separation	.044	.010	**	.041	.018	*	.041	.002	**
5 years after separation	.028	.263		.025	.275		.025	.268	
Number of separated individuals in sample	952			1068			1068		
Number of non-separated individuals in sample	38342			43823			43862		
	Men without children								
5 years before separation	.006	1.000		-.001	1.000		-.001	1.000	
4 years before separation	.000	1.000		.006	1.000		.006	1.000	
3 years before separation	-.006	.966		-.005	.969		-.005	.994	
2 years before separation	-.001	1.000		.002	1.000		.002	1.000	
1 year after separation	.035	.130		.027	.481		.027	.223	
2 years after separation	.017	.905		.011	.992		.011	.987	
3 years after separation	.027	.767		.024	.622		.024	.844	
4 years after separation	.041	.259		.033	.300		.033	.531	
5 years after separation	.012	.997		.003	1.000		.004	1.000	
Number of separated individuals in sample	367			417			417		
Number of non-separated individuals in sample	15414			17568			17597		

	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men with children								
5 years before separation	.007	1.000		.004	1.000		.004	1.000	
4 years before separation	.002	1.000		-.004	1.000		-.004	1.000	
3 years before separation	-.007	.890		-.004	.992		-.004	1.000	
2 years before separation	.001	1.000		-.001	1.000		-.002	1.000	
1 year after separation	.073	.000	***	.068	.000	***	.068	.000	***
2 years after separation	.046	.083		.051	.016	*	.051	.008	**
3 years after separation	.054	.008	**	.049	.012	*	.048	.014	*
4 years after separation	.046	.118		.046	.111		.046	.014	*
5 years after separation	.037	.206		.037	.056		.037	.254	
Number of separated individuals in sample	585			651			651		
Number of non-separated individuals in sample	22928			26255			26265		
	Men with children below school age (0-4 years)								
5 years before separation	-.007	1.000		-.016	1.000		-.016	1.000	
4 years before separation	-.006	1.000		-.009	1.000		-.009	1.000	
3 years before separation	-.012	.900		-.005	.999		-.005	1.000	
2 years before separation	-.002	1.000		-.004	1.000		-.004	1.000	
1 year after separation	.072	.002	**	.076	.004	**	.076	.004	**
2 years after separation	.058	.224		.064	.058		.064	.023	*
3 years after separation	.054	.102		.051	.304		.051	.219	
4 years after separation	.069	.047	*	.059	.341		.059	.045	*
5 years after separation	.093	.007	**	.088	.006	**	.088	.016	*
Number of separated individuals in sample	300			332			332		
Number of non-separated individuals in sample	9573			11028			11029		

	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men with older children								
5 years before separation	.022	.891		.021	.984		.021	.963	
4 years before separation	.012	.993		.003	1.000		.003	1.000	
3 years before separation	-.001	1.000		-.003	1.000		-.003	1.000	
2 years before separation	.003	1.000		.002	1.000		.001	1.000	
1 year after separation	.075	.003	**	.061	.001	***	.061	.004	**
2 years after separation	.035	.540		.038	.386		.037	.403	
3 years after separation	.054	.091		.045	.089		.045	.325	
4 years after separation	.025	.955		.034	.489		.034	.718	
5 years after separation	-.014	.998		-.010	1.000		-.010	1.000	
Number of separated individuals in sample	285			319			319		
Number of non-separated individuals in sample	13355			15227			15236		

Notes: Results of linear probability models with poverty as dependent variable are shown. Results by presence of children or by presence and age of children were estimated separately. Partnered men separating in t-1 are the "treated" group while men staying together are the "control" group. Impacts on poverty rates relative to the year preceding separation are estimated from 1 to 5 years after and 2 to 5 years prior to separation, using a set of nine dummy variables. The table reports the coefficient on the interaction of the nine period-dummies with the treatment dummy. Significant effects prior to separation (t-5 to t-2) would indicate a violation of the common trends assumption; significant effects after separation represent the impact of separation on poverty. Column (3) reports the main results presented in the main text and in tables A2.1/A2.2; Column (1) shows results based on waves 1 to 19 only, to remove observations affected by COVID-19 and related changes in income support payments. Column (2) excludes individuals whose relationship ended in widowhood from the analysis. ***, ** and * indicate significance at the 0.1%-level, 1%-level and 5%-level. The model controls for age, education, health, migrant status, previous relationships and relationship duration, past economic outcomes, labour market history and partner's labour market history by assigning higher weights to control individuals who are more similar to treated individuals in these characteristics. For details of the weighting procedure see Appendix A5. ***, ** and * indicate significance at the 0.1%-level, 1%-level and 5%-level. p-values have been adjusted for multiple hypothesis testing within each separate estimation using the Šidák correction (Šidák, 1967).

Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A3.2 Trajectories in poverty before and after separation – Women – comparison of different sample definitions

	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women								
5 years before separation	.016	.876		.020	.655		.020	.641	
4 years before separation	.012	.917		.011	.945		.011	.972	
3 years before separation	-.006	.718		-.003	.986		-.003	.997	
2 years before separation	.002	.999		.003	.989		.003	.989	
1 year after separation	.129	.000	***	.128	.000	***	.128	.000	***
2 years after separation	.085	.000	***	.081	.000	***	.081	.000	***
3 years after separation	.048	.001	***	.048	.000	***	.048	.000	***
4 years after separation	.056	.000	***	.053	.000	***	.052	.000	***
5 years after separation	.053	.000	***	.055	.000	***	.054	.000	***
Number of separated individuals in sample	1066			1194			1194		
Number of non-separated individuals in sample	42977			49034			49154		
	Women without children								
5 years before separation	-.002	1.000		.001	1.000		.001	1.000	
4 years before separation	.021	.751		.015	.934		.015	.952	
3 years before separation	-.001	1.000		-.002	1.000		-.002	1.000	
2 years before separation	.001	1.000		-.001	1.000		.000	1.000	
1 year after separation	.095	.000	***	.090	.000	***	.089	.000	***
2 years after separation	.098	.000	***	.094	.000	***	.093	.000	***
3 years after separation	.061	.026	*	.060	.012	*	.060	.000	***
4 years after separation	.055	.032	*	.049	.086		.048	.059	
5 years after separation	.055	.043	*	.053	.097		.052	.041	*
Number of separated individuals in sample	398			441			441		
Number of non-separated individuals in sample	18713			21275			21359		

Effect of separation on poverty risk...	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women with children								
5 years before separation	.027	.521		.031	.341		.031	.468	
4 years before separation	.007	1.000		.008	.999		.008	1.000	
3 years before separation	-.010	.719		-.004	.986		-.004	.996	
2 years before separation	.003	1.000		.005	.963		.005	.979	
1 year after separation	.149	.000	***	.151	.000	***	.151	.000	***
2 years after separation	.077	.000	***	.074	.000	***	.074	.000	***
3 years after separation	.041	.030	*	.041	.036	*	.041	.046	*
4 years after separation	.057	.006	**	.055	.016	*	.055	.004	**
5 years after separation	.052	.015	*	.056	.000	***	.055	.007	**
Number of separated individuals in sample	668			753			753		
Number of non-separated individuals in sample	24264			27759			27795		
	Women with children below school age (0-4 years)								
5 years before separation	.010	1.000		.021	.997		.020	.992	
4 years before separation	-.009	1.000		-.004	1.000		-.004	1.000	
3 years before separation	-.025	.062		-.016	.505		-.016	.358	
2 years before separation	-.004	1.000		.001	1.000		.001	1.000	
1 year after separation	.195	.000	***	.199	.000	***	.199	.000	***
2 years after separation	.081	.002	**	.086	.004	**	.086	.000	***
3 years after separation	.005	1.000		.018	.983		.018	.994	
4 years after separation	.063	.233		.062	.173		.062	.126	
5 years after separation	.059	.186		.068	.013	*	.067	.075	
Number of separated individuals in sample	332			382			382		
Number of non-separated individuals in sample	9970			11471			11477		

	Waves 1-19 only			Widowed individuals excluded from analysis			Base estimate		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women with older children								
5 years before separation	.043	.183		.042	.124		.042	.089	
4 years before separation	.022	.863		.020	.743		.020	.844	
3 years before separation	.005	.999		.007	.973		.007	.944	
2 years before separation	.010	.818		.010	.767		.010	.522	
1 year after separation	.103	.000	***	.101	.000	***	.101	.000	***
2 years after separation	.073	.000	***	.062	.007	**	.062	.001	**
3 years after separation	.076	.000	***	.065	.005	**	.065	.003	**
4 years after separation	.053	.044	*	.051	.040	*	.051	.013	*
5 years after separation	.045	.177		.046	.082		.046	.081	
Number of separated individuals in sample	336			371			371		
Number of non-separated individuals in sample	14294			16288			16318		

Notes: See Table A3.1. This table shows analogous results for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A3.3 Trajectories in employment before and after separation – Men – comparison of different sample definitions

Effect of separation on probability of employment...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Men								
5 years before separation	-.025	.522		-.019	.876		-.019	.880	
4 years before separation	-.027	.277		-.023	.583		-.023	.350	
3 years before separation	-.005	.918		-.007	.883		-.007	.776	
2 years before separation	-.005	.971		-.002	1.000		-.002	.999	
1 year after separation	-.045	.000	***	-.040	.000	***	-.040	.002	**
2 years after separation	-.033	.042	*	-.041	.005	**	-.041	.007	**
3 years after separation	-.039	.044	*	-.041	.008	**	-.041	.001	**
4 years after separation	-.029	.245		-.035	.041	*	-.035	.042	*
5 years after separation	-.011	.997		-.018	.851		-.017	.914	
Number of separated individuals in sample	952			1068			1068		
Number of non-separated individuals in sample	38342			43823			43862		
	Men without children								
5 years before separation	-.049	.502		-.038	.690		-.038	.685	
4 years before separation	-.048	.374		-.050	.183		-.050	.045	*
3 years before separation	-.018	.155		-.017	.389		-.017	.208	
2 years before separation	-.004	.997		-.001	1.000		-.001	1.000	
1 year after separation	-.061	.001	**	-.043	.010	**	-.043	.102	
2 years after separation	-.028	.618		-.025	.568		-.026	.746	
3 years after separation	-.013	.999		-.012	.999		-.012	.999	
4 years after separation	-.008	1.000		-.004	1.000		-.004	1.000	
5 years after separation	.007	1.000		.000	1.000		-.001	1.000	
Number of separated individuals in sample	367			417			417		
Number of non-separated individuals in sample	15414			17568			17597		

Effect of separation on probability of employment...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men with children								
5 years before separation	-.010	1.000		-.007	1.000		-.007	1.000	
4 years before separation	-.014	.981		-.006	1.000		-.006	1.000	
3 years before separation	.002	1.000		-.001	1.000		.000	1.000	
2 years before separation	-.005	.994		-.003	.999		-.003	.999	
1 year after separation	-.036	.130		-.038	.007	**	-.038	.057	
2 years after separation	-.037	.276		-.051	.019	*	-.051	.015	*
3 years after separation	-.055	.031	*	-.059	.007	**	-.059	.000	***
4 years after separation	-.042	.156		-.054	.007	**	-.054	.017	*
5 years after separation	-.023	.949		-.028	.588		-.028	.778	
Number of separated individuals in sample	585			651			651		
Number of non-separated individuals in sample	22928			26255			26265		
	Men with children below school age (0-4 years)								
5 years before separation	-.028	.993		-.028	.988		-.028	.994	
4 years before separation	-.012	1.000		-.002	1.000		-.002	1.000	
3 years before separation	.004	1.000		-.002	1.000		-.002	1.000	
2 years before separation	-.007	.998		-.005	1.000		-.005	1.000	
1 year after separation	-.040	.470		-.041	.063		-.041	.248	
2 years after separation	-.061	.152		-.079	.011	*	-.079	.024	*
3 years after separation	-.105	.010	*	-.090	.000	***	-.090	.001	***
4 years after separation	-.089	.039	*	-.093	.001	**	-.093	.003	**
5 years after separation	-.049	.724		-.057	.164		-.057	.342	
Number of separated individuals in sample	300			332			332		
Number of non-separated individuals in sample	9573			11028			11029		

Effect of separation on probability of employment...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Men with older children								
5 years before separation	.002	1.000		.006	1.000		.006	1.000	
4 years before separation	-.017	.994		-.011	.999		-.011	.999	
3 years before separation	.001	1.000		.001	1.000		.001	1.000	
2 years before separation	-.003	1.000		-.002	1.000		-.002	1.000	
1 year after separation	-.031	.399		-.035	.431		-.034	.558	
2 years after separation	-.013	1.000		-.022	.969		-.022	.924	
3 years after separation	-.006	1.000		-.028	.937		-.027	.825	
4 years after separation	.004	1.000		-.016	.996		-.016	.998	
5 years after separation	.003	1.000		.000	1.000		.000	1.000	
Number of separated individuals in sample	285			319			319		
Number of non-separated individuals in sample	13355			15227			15236		

Notes: See Table A3.1. This table shows analogous results for the outcome variable employment.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A3.4 Trajectories in employment before and after separation – Women – comparison of different sample definitions

Effect of separation on employment probability...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	All Women								
5 years before separation	.019	.978		.020	.859		.019	.925	
4 years before separation	-.012	.976		-.008	.999		-.008	.999	
3 years before separation	-.003	.999		-.003	.999		-.003	1.000	
2 years before separation	.004	.994		.003	1.000		.003	1.000	
1 year after separation	.011	.982		.010	.991		.010	.990	
2 years after separation	.013	.939		.010	.987		.010	.992	
3 years after separation	.005	1.000		.006	1.000		.006	1.000	
4 years after separation	.012	.998		.011	.988		.011	.996	
5 years after separation	.028	.537		.031	.306		.031	.229	
Number of separated individuals in sample	1066			1194			1194		
Number of non-separated individuals in sample	42977			49034			49154		
	Women without children								
5 years before separation	.030	.887		.026	.868		.026	.926	
4 years before separation	-.036	.628		-.031	.740		-.031	.824	
3 years before separation	-.014	.325		-.013	.385		-.013	.303	
2 years before separation	-.009	.752		-.010	.626		-.010	.697	
1 year after separation	-.007	1.000		-.006	1.000		-.006	1.000	
2 years after separation	-.002	1.000		-.001	1.000		-.002	1.000	
3 years after separation	.011	.999		.010	1.000		.010	1.000	
4 years after separation	.021	.974		.026	.883		.026	.885	
5 years after separation	.029	.937		.042	.483		.041	.574	
Number of separated individuals in sample	398			441			441		
Number of non-separated individuals in sample	18,713			21275			21359		

Effect of separation on employment probability...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women with children								
5 years before separation	.009	1.000		.012	.998		.012	1.000	
4 years before separation	-.002	1.000		.001	1.000		.001	1.000	
3 years before separation	.002	1.000		.003	1.000		.003	1.000	
2 years before separation	.011	.666		.009	.805		.010	.750	
1 year after separation	.021	.821		.019	.902		.019	.905	
2 years after separation	.022	.750		.017	.953		.017	.921	
3 years after separation	.002	1.000		.003	1.000		.004	1.000	
4 years after separation	.007	1.000		.003	1.000		.003	1.000	
5 years after separation	.027	.880		.024	.942		.024	.835	
Number of separated individuals in sample	668			753			753		
Number of non-separated individuals in sample	24264			27759			27795		
	Women with children below school age (0-4 years)								
5 years before separation	-.004	1.000		-.002	1.000		-.002	1.000	
4 years before separation	.000	1.000		.004	1.000		.004	1.000	
3 years before separation	.005	1.000		.007	.994		.007	.999	
2 years before separation	.013	.942		.010	.949		.010	.901	
1 year after separation	.007	1.000		.007	1.000		.007	1.000	
2 years after separation	.006	1.000		.002	1.000		.002	1.000	
3 years after separation	-.012	1.000		-.009	1.000		-.009	1.000	
4 years after separation	-.007	1.000		-.011	1.000		-.010	1.000	
5 years after separation	.006	1.000		.022	.998		.022	.997	
Number of separated individuals in sample	332			382			382		
Number of non-separated individuals in sample	9970			11471			11477		

Effect of separation on employment probability...	Waves 1-19 only			Widowed individuals included in control group			Base estimate		
	Effect	p-value	sig	Effect	p-value	sig	Effect	p-value	sig
	Women with older children								
5 years before separation	.022	.996		.025	.967		.024	.985	
4 years before separation	-.004	1.000		-.002	1.000		-.002	1.000	
3 years before separation	.000	1.000		.000	1.000		.000	1.000	
2 years before separation	.009	.776		.010	.972		.010	.948	
1 year after separation	.035	.499		.031	.545		.031	.615	
2 years after separation	.037	.393		.033	.738		.033	.396	
3 years after separation	.010	1.000		.010	1.000		.010	1.000	
4 years after separation	.018	.999		.010	1.000		.010	1.000	
5 years after separation	.047	.712		.022	.990		.022	.978	
Number of separated individuals in sample	336			371			371		
Number of non-separated individuals in sample	14294			16288			16318		

Notes: See Table A3.1. This table shows analogous results for the outcome variable employment for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

A4 Preferred Estimator

Table A4.1 Trajectories in poverty before and after separation – Men – importance of accounting for pre-separation characteristics

	Without controls			Base estimator – with controls		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig
	All Men					
5 years before separation	-.016	.928		.002	1.000	
4 years before separation	-.014	.950		.000	1.000	
3 years before separation	-.029	.120		-.005	.975	
2 years before separation	-.016	.809		.000	1.000	
1 year after separation	.028	.133		.052	.000	***
2 years after separation	.009	.995		.036	.016	*
3 years after separation	.009	.998		.039	.003	**
4 years after separation	.000	1.000		.041	.002	**
5 years after separation	-.012	.985		.025	.268	
Number of separated individuals in sample	1067			1068		
Number of non-separated individuals in sample	5124			43862		
	Men without children					
5 years before separation	-.030	.775		-.001	1.000	
4 years before separation	-.014	.997		.006	1.000	
3 years before separation	-.036	.227		-.005	.994	
2 years before separation	-.021	.883		.002	1.000	
1 year after separation	-.015	.980		.027	.223	
2 years after separation	-.037	.239		.011	.987	
3 years after separation	-.034	.536		.024	.844	
4 years after separation	-.023	.958		.033	.531	
5 years after separation	-.055	.043	*	.004	1.000	
Number of separated individuals in sample	416			417		
Number of non-separated individuals in sample	2475			17597		
	Men with children					
5 years before separation	-.007	1.000		.004	1.000	
4 years before separation	-.015	.992		-.004	1.000	
3 years before separation	-.024	.702		-.004	1.000	
2 years before separation	-.012	.993		-.002	1.000	
1 year after separation	.057	.004	**	.068	.000	***
2 years after separation	.040	.153		.051	.008	**
3 years after separation	.038	.185		.048	.015	*
4 years after separation	.018	.973		.046	.014	*
5 years after separation	.019	.965		.037	.254	
Number of separated individuals in sample	651			651		
Number of non-separated individuals in sample	2649			26265		

	Without controls			Base estimator – with controls		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig
	Men with children below school age (0-4 years)					
5 years before separation	-.038	.853		-.016	1.000	
4 years before separation	-.020	.997		-.009	1.000	
3 years before separation	-.028	.953		-.005	1.000	
2 years before separation	-.033	.801		-.004	1.000	
1 year after separation	.055	.211		.076	.004	**
2 years after separation	.037	.802		.064	.023	*
3 years after separation	.026	.961		.051	.219	
4 years after separation	.014	1.000		.059	.045	*
5 years after separation	.059	.361		.088	.016	*
Number of separated individuals in sample	332			332		
Number of non-separated individuals in sample	1236			11029		
	Men with older children					
5 years before separation	.026	.955		.021	.963	
4 years before separation	-.004	1.000		.003	1.000	
3 years before separation	-.017	.979		-.003	1.000	
2 years before separation	.010	1.000		.001	1.000	
1 year after separation	.059	.035	*	.061	.004	**
2 years after separation	.044	.289		.037	.403	
3 years after separation	.051	.179		.045	.325	
4 years after separation	.022	.976		.034	.718	
5 years after separation	-.016	.997		-.010	1.000	
Number of separated individuals in sample	319			319		
Number of non-separated individuals in sample	1413			15236		

Notes: Results of linear probability models with poverty as dependent variable are shown. Results by presence of children or by presence and age of children were estimated separately. Partnered men separating in t-1 are the "treated" group while men staying together are the "control" group. Impacts on poverty rates relative to the year preceding separation are estimated from 1 to 5 years after and 2 to 5 years prior to separation, using a set of nine dummy variables. The table reports the coefficient on the interaction of the nine period-dummies with the treatment dummy. Significant effects prior to separation (t-5 to t-2) would indicate a violation of the common trends assumption; significant effects after separation represent the impact of separation on poverty. The last three columns report the main results presented in the main text and in tables A2.1/A2.2, with socioeconomic characteristics being accounted for by assigning higher weights to control individuals who are more similar to treated individuals in these characteristics Included are age, education, health, migrant status, previous relationships and relationship duration, past economic outcomes, labour market history and partner's labour market history. For details of the weighting procedure see Appendix A5. The first three columns show results unadjusted for these characteristics; here, for non-separating individuals, one observation period when 'absence of separation' was observed was chosen as focal point at random, and the "pre" and "post"-periods were defined relative to this focal point. ***, ** and * indicate significance at the 0.1%-level, 1%-level and 5%-level. p-values have been adjusted for multiple hypothesis testing within each separate estimation using the Šidák correction.

Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A4.2 Trajectories in poverty before and after separation – Women – importance of accounting for pre-separation characteristics

	Without controls			Base estimator – with controls		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig
	All Women					
5 years before separation	.017	.877		.020	.641	
4 years before separation	.008	.999		.011	.972	
3 years before separation	.004	1.000		-.003	.997	
2 years before separation	.011	.949		.003	.989	
1 year after separation	.111	.000	***	.128	.000	***
2 years after separation	.064	.000	***	.081	.000	***
3 years after separation	.026	.249		.048	.000	***
4 years after separation	.028	.254		.052	.000	***
5 years after separation	.019	.783		.054	.000	***
Number of separated individuals in sample	1195			1194		
Number of non-separated individuals in sample	5581			49154		
	Women without children					
5 years before separation	.007	1.000		.001	1.000	
4 years before separation	.019	.981		.015	.952	
3 years before separation	.012	.999		-.002	1.000	
2 years before separation	.009	.999		.000	1.000	
1 year after separation	.076	.002	**	.089	.000	***
2 years after separation	.078	.000	***	.093	.000	***
3 years after separation	.035	.557		.060	.000	***
4 years after separation	.024	.934		.048	.059	
5 years after separation	.014	.999		.052	.041	*
Number of separated individuals in sample	441			441		
Number of non-separated individuals in sample	2832			21359		
	Women with children					
5 years before separation	.024	.834		.031	.468	
4 years before separation	.001	1.000		.008	1.000	
3 years before separation	-.001	1.000		-.004	.996	
2 years before separation	.009	.998		.005	.979	
1 year after separation	.132	.000	***	.151	.000	***
2 years after separation	.059	.002	**	.074	.000	***
3 years after separation	.026	.551		.041	.046	*
4 years after separation	.034	.271		.055	.004	**
5 years after separation	.031	.501		.055	.007	**
Number of separated individuals in sample	754			753		
Number of non-separated individuals in sample	2749			27795		

	Without controls			Base estimator – with controls		
Effect of separation on poverty risk...	Effect	p-value	sig	Effect	p-value	sig
	Women with children below school age (0-4 years)					
5 years before separation	-.004	1.000		.020	.992	
4 years before separation	-.024	.982		-.004	1.000	
3 years before separation	-.025	.945		-.016	.358	
2 years before separation	-.006	1.000		.001	1.000	
1 year after separation	.163	.000	***	.199	.000	***
2 years after separation	.049	.386		.086	.000	***
3 years after separation	-.024	.961		.018	.994	
4 years after separation	.024	.980		.062	.126	
5 years after separation	.028	.968		.067	.075	
Number of separated individuals in sample	382			382		
Number of non-separated individuals in sample	1278			11477		
	Women with older children					
5 years before separation	.056	.087		.042	.089	
4 years before separation	.031	.672		.020	.844	
3 years before separation	.026	.718		.007	.944	
2 years before separation	.026	.761		.010	.522	
1 year after separation	.101	.000	***	.101	.000	***
2 years after separation	.068	.006	**	.062	.001	**
3 years after separation	.076	.001	**	.065	.003	**
4 years after separation	.047	.130		.051	.013	*
5 years after separation	.038	.435		.046	.081	
Number of separated individuals in sample	372			371		
Number of non-separated individuals in sample	1471			16318		

Notes: See Table A4.1. This table shows analogous results for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A4.3 Trajectories in employment before and after separation – Men – importance of accounting for pre-separation characteristics

Effect of separation on employment probability...	Without controls			Base estimator – with controls		
	Effect	p-value	sig	Effect	p-value	sig
	All Men					
5 years before separation	-.034	.284		-.019	.880	
4 years before separation	-.035	.150		-.023	.350	
3 years before separation	-.024	.475		-.007	.776	
2 years before separation	-.004	1.000		-.002	.999	
1 year after separation	-.014	.847		-.040	.002	**
2 years after separation	-.001	1.000		-.041	.007	**
3 years after separation	.014	.958		-.041	.001	**
4 years after separation	.046	.027	*	-.035	.043	*
5 years after separation	.080	.000	***	-.017	.914	
Number of separated individuals in sample	1067			1068		
Number of non-separated individuals in sample	5124			43862		
	Men without children					
5 years before separation	-.068	.074		-.038	.685	
4 years before separation	-.070	.033	*	-.050	.045	*
3 years before separation	-.035	.670		-.017	.208	
2 years before separation	.007	1.000		-.001	1.000	
1 year after separation	-.018	.934		-.043	.102	
2 years after separation	.023	.882		-.026	.746	
3 years after separation	.067	.011	*	-.012	.999	
4 years after separation	.102	.000	***	-.004	1.000	
5 years after separation	.131	.000	***	-.001	1.000	
Number of separated individuals in sample	416			417		
Number of non-separated individuals in sample	2475			17597		
	Men with children					
5 years before separation	-.006	1.000		-.007	1.000	
4 years before separation	-.007	1.000		-.006	1.000	
3 years before separation	-.013	.991		.000	1.000	
2 years before separation	-.008	.999		-.003	.999	
1 year after separation	-.015	.964		-.038	.057	
2 years after separation	-.022	.867		-.051	.016	*
3 years after separation	-.029	.646		-.059	.000	***
4 years after separation	-.006	1.000		-.054	.017	*
5 years after separation	.025	.908		-.028	.778	
Number of separated individuals in sample	651			651		
Number of non-separated individuals in sample	2649			26265		

Effect of separation on employment probability...	Without controls			Base estimator – with controls		
	Effect	p-value	sig	Effect	p-value	sig
	Men with children below school age (0-4 years)					
5 years before separation	-.032	.972		-.028	.994	
4 years before separation	-.005	1.000		-.002	1.000	
3 years before separation	-.024	.979		-.002	1.000	
2 years before separation	-.030	.850		-.005	1.000	
1 year after separation	-.023	.964		-.041	.248	
2 years after separation	-.054	.239		-.079	.024	*
3 years after separation	-.065	.109		-.090	.001	***
4 years after separation	-.061	.332		-.093	.003	**
5 years after separation	-.025	.990		-.057	.342	
Number of separated individuals in sample	332			332		
Number of non-separated individuals in sample	1236			11029		
	Men with older children					
5 years before separation	.008	1.000		.006	1.000	
4 years before separation	-.014	.999		-.011	.999	
3 years before separation	-.007	1.000		.001	1.000	
2 years before separation	.010	.999		-.002	1.000	
1 year after separation	-.009	1.000		-.034	.558	
2 years after separation	.009	1.000		-.022	.924	
3 years after separation	.006	1.000		-.027	.825	
4 years after separation	.043	.623		-.016	.998	
5 years after separation	.065	.179		.000	1.000	
Number of separated individuals in sample	319			319		
Number of non-separated individuals in sample	1413			15236		

Notes: See Table A4.1. This table shows analogous results for the outcome variable employment.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

Table A4.4 Trajectories in employment before and after separation – Women – importance of accounting for pre-separation characteristics

	Without controls			Base estimator – with controls		
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig
	All Women					
5 years before separation	.011	1.000		.019	.925	
4 years before separation	-.009	1.000		-.008	.999	
3 years before separation	.007	1.000		-.003	1.000	
2 years before separation	.027	.360		.003	1.000	
1 year after separation	.041	.014	*	.010	.990	
2 years after separation	.056	.002	**	.010	.992	
3 years after separation	.061	.002	**	.006	1.000	
4 years after separation	.088	.000	***	.011	.996	
5 years after separation	.128	.000	***	.031	.229	
Number of separated individuals in sample	1195			1194		
Number of non-separated individuals in sample	5581			49154		
	Women without children					
5 years before separation	-.016	1.000		.026	.926	
4 years before separation	-.064	.122		-.031	.824	
3 years before separation	-.023	.968		-.013	.304	
2 years before separation	-.016	.992		-.010	.697	
1 year after separation	.017	.984		-.006	1.000	
2 years after separation	.040	.487		-.002	1.000	
3 years after separation	.061	.082		.010	1.000	
4 years after separation	.101	.001	***	.026	.885	
5 years after separation	.138	.000	***	.041	.575	
Number of separated individuals in sample	441			441		
Number of non-separated individuals in sample	2832			21359		
	Women with children					
5 years before separation	.024	.979		.012	1.000	
4 years before separation	.023	.979		.001	1.000	
3 years before separation	.022	.956		.003	1.000	
2 years before separation	.054	.028	*	.010	.750	
1 year after separation	.041	.162		.019	.905	
2 years after separation	.039	.368		.017	.921	
3 years after separation	.024	.949		.004	1.000	
4 years after separation	.028	.887		.003	1.000	
5 years after separation	.060	.112		.024	.835	
Number of separated individuals in sample	754			753		
Number of non-separated individuals in sample	2749			27795		

	Without controls			Base estimator – with controls		
Effect of separation on employment...	Effect	p-value	sig	Effect	p-value	sig
	Women with children below school age (0-4 years)					
5 years before separation	-.006	1.000		-.002	1.000	
4 years before separation	.035	.981		.004	1.000	
3 years before separation	.034	.963		.007	.999	
2 years before separation	.074	.096		.010	.901	
1 year after separation	.030	.941		.007	1.000	
2 years after separation	.024	.994		.002	1.000	
3 years after separation	.012	1.000		-.009	1.000	
4 years after separation	.007	1.000		-.010	1.000	
5 years after separation	.051	.823		.022	.997	
Number of separated individuals in sample	382			382		
Number of non-separated individuals in sample	1278			11477		
	Women with older children					
5 years before separation	.030	.980		.024	.985	
4 years before separation	-.010	1.000		-.002	1.000	
3 years before separation	-.006	1.000		.000	1.000	
2 years before separation	.026	.918		.010	.948	
1 year after separation	.051	.172		.031	.615	
2 years after separation	.054	.283		.033	.396	
3 years after separation	.026	.979		.010	1.000	
4 years after separation	.039	.863		.010	1.000	
5 years after separation	.059	.418		.022	.978	
Number of separated individuals in sample	372			371		
Number of non-separated individuals in sample	1471			16318		

Notes: See Table A4.1. This table shows analogous results for the outcome variable employment for women.
Source: HILDA Survey, Waves 1 to 21; authors' calculations.

A5 Technical details on the estimation approach

A5.1 Construction of regression weights

The construction of weights follows a process similar to propensity score matching as originally developed by Rosenbaum and Rubin (1983, 1985) – except that the resulting weights are used to enhance a difference-in-differences estimator, rather than the more typical use of creating weighted sample means.

We combine propensity score matching on a range of sociodemographic characteristics, with exact matching on gender, presence and age of children. We first split the entire sample in six groups: the first and second group are men and women without dependent children; the third and fourth group are men and women with dependent children, at least one of them below age 5; and the fifth and sixth group are men and women with children, all of whom are 5 years old or older.

A probit model with separation as dependent variable and the full set of controls as explanatory variables is then estimated separately for these six groups. The predicted probability of separation resulting from this model, combines all characteristics in one index ranging from 0 to 1 and represents individuals' propensity to separate. Within the groups, we then consider all individuals who are about to separate, one by one, and compare their propensity score to that of individuals who remain partnered. We define a maximum difference between the propensity score of the separating individual *i* and all who remain partnered. This maximum difference is set to 0.03 (more detail on this choice follows below). All individuals whose propensity score differs from that of the separating individual *i* by more than 3 percentage points are assigned a weight of zero for individual *i*. Whenever the difference between propensity scores is within the maximum range for separating individual *i*, the non-separating individual is assigned a positive weight that is larger the closer their propensity score is to *i*'s propensity score.[22] Partnered individual *j*'s weight resulting from the comparison to separating individual *i* is:

$$w_{ij} = 1 - \left(\frac{PS_j - PS_i}{0.015}\right)^2 \text{ if } \left|PS_j - PS_i\right| \leq 0.025$$

$$w_{ij} = 0 \text{ if } |PS_j - PS_i| > 0.025$$

[22] Where multiple observations from the same partnered individual *j* at different points in time fall within that range, only the observation with the propensity score closest to the separating individual *i* is used.

where w_{ij} refers to the weight for individual *j* for a match to individual *i*, and PS_j and PS_i refer to the propensity scores of individuals *j* and *i*. Multiple partnered individuals *j* may receive a positive weight from being compared to individual *i*. After all individuals who remain partnered have been assigned a weight in relation to the one separating individual *i*, these weights are normalised to add up to one. This process is repeated for every separating individual *i*, and the weights assigned to the selected individuals who remain partnered are added up during the process to determine their total weight for the analysis.

This results in a set of matching weights with the following characteristics: a) every individual who separates has a weight of one, b) the sum of weights assigned to individuals who remain partnered and individuals who separate is identical, and equals the number of separating individuals, and c) the weight of individuals who remain partnered is larger the more similar they are to the pool of individuals who separate.

A5.2 Maximum difference in propensity scores ("bandwidth")

The maximum difference (or bandwidth) is set by trying out a range of different maxima and comparing the resulting quality of weights. Provided that the bandwidth is not too large which would lead to biased results, we prefer the bandwidth to be as large as possible so that standard errors on estimates are minimised. We perform the matching procedure using a number of different bandwidths between 0.005 and 0.01 and compare the quality of the results. We use three measures of quality.

- The first measure is the number of separating individuals for whom no partnered individuals was assigned a positive weight. The smaller the bandwidth, the higher this number. The more separating individuals have no similar partnered counterpart in the analysis, the less likely we are to find common trends.

- The second quality indicator is the average bias in the residuals of this probit regression (Rubin's B): $B(x) = \frac{\mu_t(x) - \mu_u(x)}{\sqrt{(V_t(x) + V_u(x))/2}} \cdot 100\%$, with $\mu_t(x)$ and $\mu_u(x)$ being the mean residual among the separating individuals and their non-separating counterparts respectively, and $V_t(x)$ and $V_u(x)$ the respective sample variances. Lower values are desirable.

- The third quality indicator is the bias as defined above for every explanatory variable such as age, health, etc., which is averaged across all characteristics. Lower values are desirable.

Figures A5.1 to A5.3 show these quality indicators by bandwidth.

Figure A5.1: Number of separating individuals with no suitable matching partner

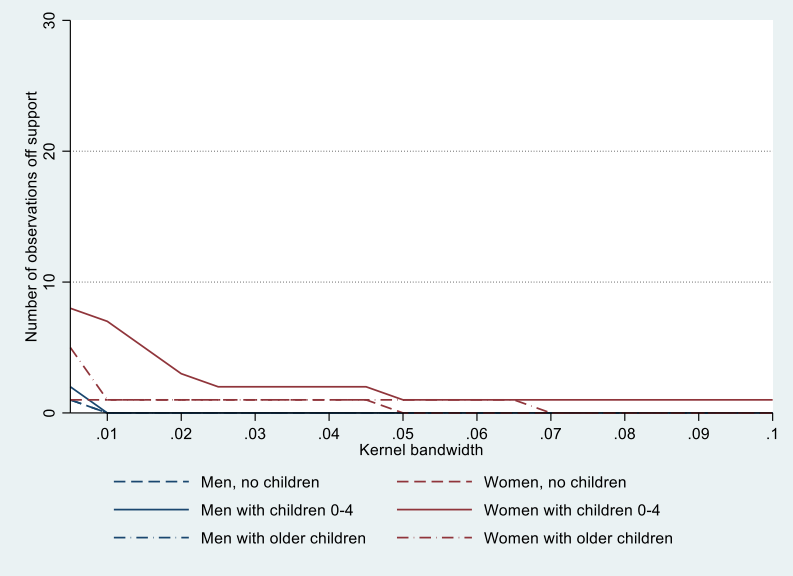


Figure A5.2: Rubin's B (in %)

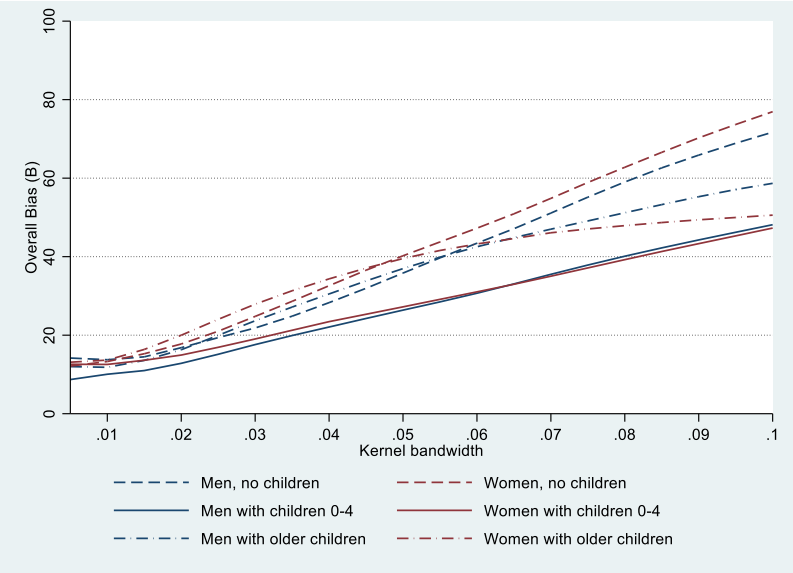


Figure A5.3: Standardised bias in socio-demographic characteristics after kernel matching— Mean bias over all characteristics (in %)

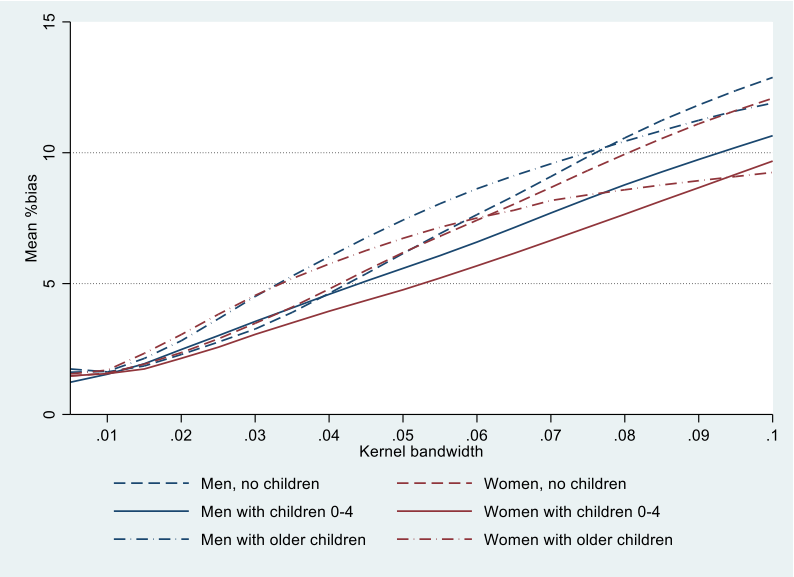


Figure A5.1 shows that, for the subgroup of women with young children, a kernel bandwidth below 0.025 comes at the cost of large numbers of separating individuals having to be removed from the sample as no matching partner can be found for them. For other groups, such an increase only occurs when the bandwidth falls below 0.01.

Figure A5.2 shows a decrease in quality as the bandwidth increases; however, there is no discernible 'turning point' at which the quality loss accelerates and that could indicate an optimal bandwidth. A commonly applied rule of thumb is that Rubin's B should be below 25. A bandwidth of 0.025 ensures this to be the case for all six subgroups. Figure A5.3 again shows a quality loss as the bandwidth increases but no point at which this loss noticeably accelerates; it shows no indication that a bandwidth of 0.025 is sub-optimally large. Therefore, we choose the kernel bandwidth to be 0.025, and all matching weights are calculated according to the formula: $w_{ut} = \max\left\{0;\ 1 - \left(\frac{|P_u - P_t|}{0.025}\right)^2\right\}$. These are then used as regression weights to refine the difference-in-differences estimator.

Figures A5.4 and A5.5 show the distribution of propensity scores for separating and never separating individuals with and without weights.

Figure A5.4: Distribution of propensity to separate for control and treated individuals, with and without weights – Women

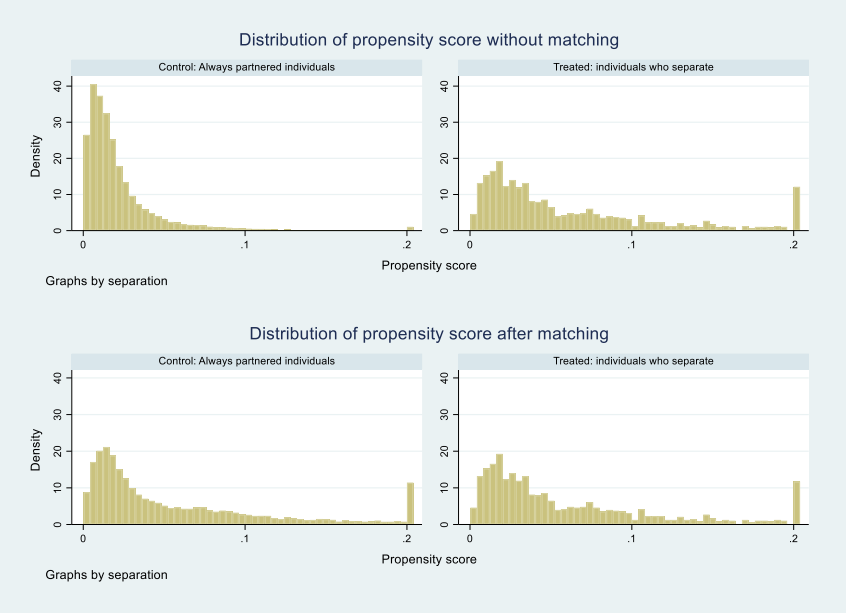
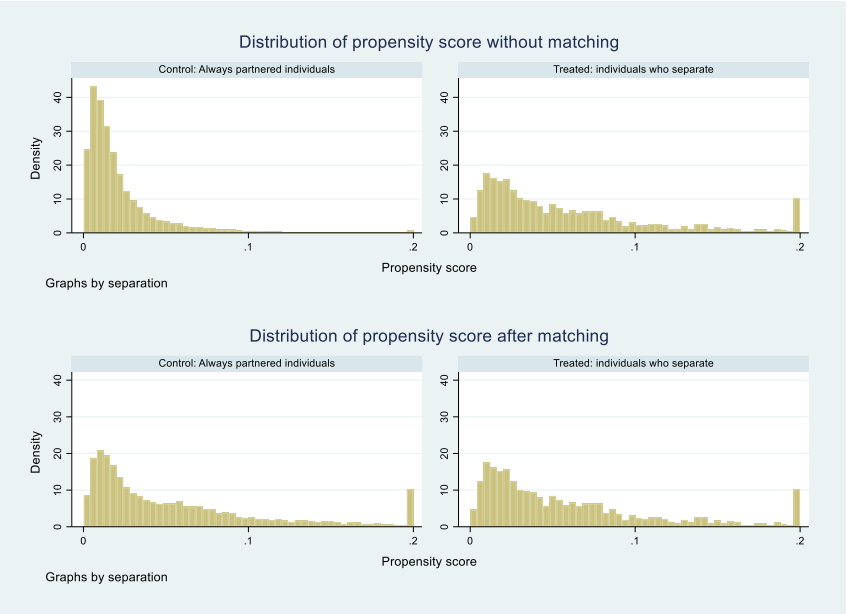


Figure A5.5: Distribution of propensity to separate for control and treated individuals, with and without weights – Men



We assessed the relationship between bandwidth and estimator quality again, using the exact same criteria, for estimators that condition on pre-separation employment status. We chose a bandwidth of 0.02 when analysing women who were employed before separation/men whose partners were employed before separation. For the analysis of women who were not employed/men whose partners were not employed before separation, we chose a bandwidth of 0.01.