

Who wins, who loses and who recovers from divorce?

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1. Introduction

This paper analyses the economic consequences of divorce, focusing on two issues: first, how large and persistent is the fall in income on divorce for each party; second, how might alternative arrangements for divorce settlements affect this income fall and affect behaviour within the marriage and following divorce. Our main finding is that there is a striking difference between the experience of men and women on divorce, alongside substantial variation within the sexes. If divorce settlements were based on compensation for decisions made within marriage, some of these differences would be offset.

Part of the drive for reform of the basis for divorce settlements comes from the unequal experience of men and women following divorce. Much of the evidence for this comes from the US. For the UK, Eekelaar and Maclean (1986) provide evidence using a retrospective cross-section survey. Jenkins (2008) follows individuals in the UK over time through divorce, finding that the financial impact on women exceeds that for men, but with a weakening impact of divorce over time. However, these conclusions are based on a sample in which separation following cohabitation is not distinguished from separation from marriage.¹ The evidence we show in this chapter provides a detailed analysis of what happens after divorce in the short and long term, distinguishing marriage from cohabitation.

We examine the short and longer term impact of divorce on the income and financial resources of both men and women in the UK. We do this using data from fifteen years of the British Household Panel Survey. We consider the size of the fall in income after divorce and how long that fall persists. Following divorce, the income of men increases by about 23%, while that of women falls substantially by 31%, after controlling for household size. Underlying these numbers are two offsetting effects: first, each spouse is living in a household with less household income; second, household size is smaller (in the absence of repartnering) meaning increasing per capita income for a given income level. For men, this second effect dominates, leading to the increase in 'equivalent' income. For women, the loss of partner income dominates the smaller household size and equivalent income falls. Over time, the income loss faced by women is mitigated and average post-divorce income returns to average pre-divorce rates nine years later. We show the extent that this recovery is due to repartnering, labour supply changes and to government provided benefits, finding that the main driving force behind recovery is repartnering. Benefits matter substantially for a small group of women, mostly among the low educated, but labour supply changes post-divorce are insignificant. Our data work compares these conclusions to the results for cohabiting couples:

¹ There is some evidence from the US that documents the differences in the experience of men and women after divorce, with large short-term falls in household income for women and smaller absolute falls for men. For example, Duncan and Hoffman (1985) report that women's household income is on average 70% of its pre-divorce level in the period after separation, whereas men's is 93%.

income falls on divorce are more substantial and more persistent than those on separation from a cohabiting relationship.

These figures on the recovery of household income post-divorce suggest that changing divorce settlement mechanisms will not alter long-term outcomes, instead merely replacing alternative forms of insurance. However, it is important to stress that the short term consequences for household income on divorce are substantial, and this reduces welfare. This effect is particularly severe for those without savings or access to borrowing. Further, repartnering may be viewed as an unsatisfactory way for many to recover their standard of living. Most importantly, we show that this option is least likely for certain groups, such as older divorcees and those with children, and as a result these people are hardest hit by divorce.

Drawing conclusions about appropriate settlements on the basis of standard of living after divorce is akin to basing settlements on need, which ignores the investments (and their costs) made during the relationship by both partners, and so fails to consider the honouring of implicit contracts within marriage. To clarify this argument, we draw a conceptual distinction as to whether the divorce settlement should be calculated on the basis of each party's income or on the basis of their consumption. A consumption-based measure could be needs determined or could be determined by expectations within marriage. A calculation based on income allows allocations to be made dependent on the investments each spouse has made to the marriage and to each other's careers, or dependent on current earnings potential. A key part of such a calculation concerns the role of accumulated human capital in determining earnings. There is extensive evidence that earnings are dependent on past labour force participation (Eckstein and Wolpin, 1989), and so differences in earnings potential across spouses are affected by labour supply decisions within marriage. This suggests a requirement to compensate parties for losses incurred in good faith. This issue lies at the heart of the McFarlane (2006) ruling. The chapter provides a discussion of some of the incentive effects of these alternative mechanisms.

This chapter proceeds as follows: section 2 presents empirical results on income loss and recovery after divorce and section 3 compares these trends with those after the end of cohabitation. Section 4 presents a simple model to show the implications for income and consumption of alternative resource allocation mechanisms on divorce and section 5 concludes.

2. *Estimates of Financial Loss on Divorce*

The aim of this section is to use data from the UK to show the consequences of divorce for men and for women. We begin by discussing some of the existing literature on the economic impact of divorce and then by describing the data source we use. The bulk of the section uses that data in two ways: first, we present descriptive statistics on the economic effects of divorce in the UK. We focus on income changes for those who divorce at some point in our fifteen year time frame, without comparison to those who do not, and our focus is therefore on how the timing of divorce affects behaviour. Second, we use regression analysis to identify more carefully the magnitude of effects.

2.1 Background

There exists a literature, predominantly from the US, which attempts to measure the economic effects of divorce on both men and women. Duncan and Hoffman (1985) use US panel data from 1967 to 1981 and find substantial falls in household income and increases in the poverty rate for women at the time of divorce. Income falls are mitigated by a strong labour supply

response and by remarriage. However, there is selection into remarriage which means that not all of those who divorce would be able to achieve this improvement. Smock, Manning and Gupta (1999) find that women who remain married would experience similar losses to those who divorce if they were to divorce. McKeever and Wolfinger (2001) study more recent US data from the late 1980s and early 1990s (using the National Survey of Families and Households), and find that falls in women's household income on divorce are smaller in magnitude than in previous studies. This moderation is attributed to better labour market attachment and human capital.

The study of the UK most related to this one is Jenkins (2008), which builds on Jarvis and Jenkins (1999), using the British Household Panel Survey (BHPS) to assess the income changes associated with partnership dissolution. Both these papers pool separations from cohabitation and marriage, and so we cannot draw conclusions about the effects of divorce or changes in divorce patterns. In addition, the analysis in these two papers is limited to descriptive statistics. The key findings are of substantial declines for the household incomes of women and children, after controlling for household size, but little change for men. The declines in household incomes for women and children are mitigated by increases in those receiving income support and housing benefit. There is a moderation in these effects over time, which Jenkins (2008) notes is contemporaneous with changes in in-work benefits which increased the rewards to paid work relative to not working.

For the European Union, Uunk (2004) and Aassve, Betti, Mazzucco and Mencarini (2006) use the European Community Household Panel (ECHP) to assess short term income losses on divorce. They find that social welfare and public childcare provision matters in explaining women's economic circumstances: women in countries with a social-democratic regime experience smaller income declines than those in Southern European countries, where public policy assumes that family will ensure an individual's welfare. Further, the losses from divorce are shared more equally between the man and woman in a more egalitarian society such as Sweden (with high female labour market participation rates) than they are in Italy.

There is less evidence on the experience of men. McManus and DiPrete (2001) consider the economic impact of divorce on men in the US using data from the Panel Study of Income Dynamics from 1980-1993, and point out that there is substantial heterogeneity across men. Those men who contributed over 80% of household income in the married state tend to gain (in terms of equalised household income), whereas those who contributed less suffer losses.

Overall, the literature supports the view that there is a severe, negative impact of divorce on the economic wellbeing of women, and either no effect or a small gain for men. There is less evidence on how fast recovery occurs and the mechanisms of recovery.

2.2 Data

We use panel data from the first fifteen waves of the British Household Panel Survey (BHPS), from 1991 to 2005. The first wave of this survey covered a nationally representative sample of all adults in each of around 5,000 households. This gave an initial sample of approximately 10,000 individuals. All individuals in this initial sample have been followed since, where possible. Where an original sample member (OSM) forms a new household, all adults in the new household are interviewed whilst they remain part of that household, but they are not followed if the household is disbanded unless children have been born to the couple. For this reason, the BHPS does not necessarily track both partners after a separation. All sample members provide wide-ranging information including incomes, demographic information and social attitudes. For more information about the BHPS see Taylor et al (2007).

We restrict attention to working age individuals residing in England and Wales. Various additional socioeconomic variables are used to control for changes in income, including age, race, education level and whether there are young children in the household.

We restrict our sample to individuals who we observe undergoing a separation from their partner. For couples who divorce, we define the point of divorce as the point at which the couple no longer live together, rather than the granting of an official divorce (in the spirit of Duncan and Hoffman (1985)), and similarly for cohabiting couples we define separation as the point at which the couple stop living together.² Where an individual has undergone more than one separation, each is treated as a separate record. This leaves us with a sample of 339 male and 475 female separations from marriage, and 342 male and 457 female separations from cohabitation, where survey information is available for both the year preceding and the year succeeding separation.³

Since the BHPS was intended to be a nationally representative sample, we would expect roughly equal numbers of male and female separations in our data. The disparity is due differences in attrition rates between women and men: men are more likely to leave the sample than women. There are two reasons why individuals leave the sample: first, the individual may not be an original sample member, and so is not followed after separation; second, the attrition may be as a result of choices by the individual. Whether an individual is an original sample member or the partner of an original sample member is random and so the first type of exit from the sample is not problematic. The second type of exit is potentially problematic if attrition is related to variables which drive income paths because this could bias our results. To shed light on the extent of this problem, we consider the sample of individuals who respond at time $t=-1$ and are eligible to respond at time $t=0$ (note that this excludes temporary sample members who are not followed when they split from the original sample member). Amongst those who split from a marriage, we have potential responses from 446 males and 509 females. Of these, 107 males and 34 females leave the sample, giving no data at $t=0$. Amongst those who split from a cohabitation, we have potential responses from 401 men and 473 women, with 59 men and 16 women leaving the sample.⁴

For women divorcing, we run a probit regression with “exiting the sample” as the dependent variable, and find that there are a number of characteristics predicting attrition: attrition is more likely when a woman has fewer children and is non-white. On the one hand, this leads us to be slightly cautious about the conclusions drawn about the experience of women on divorce because our effects underweight women with no children who might suffer less from divorce meaning our results may overstate the effects. On the other hand, the natural attrition rate is low at 7%. For men, where the attrition rate is much higher at 24%, there are no key variables that predict attrition. This lack of correlation between observable characteristics at time $t=-1$ and future attrition gives us some confidence that the results presented below for men are not significantly affected by attrition.⁵ For men who separate from cohabitation, attrition is more likely among those with children. The low level of natural attrition for women splitting from cohabitations makes it difficult to draw conclusions about the existence of selective attrition.

² We disregard partnerships that have ended through the death of a partner.

³ Note that in contrast with Jarvis and Jenkins (1999) we do not require the separating partnership to have children.

⁴ The indicated lower attrition rate for cohabitation is misleading since a larger proportion of those splitting from cohabitation are temporary sample members (29% of the partners in question, versus just 7% of those splitting from marriage) and so are not followed. However, this is not the natural attrition we are concerned with here.

⁵ However, attrition may be related to unobservable characteristics and we cannot test for this.

Since these sample sizes are large relative to previous studies, we are able to examine the experience of separations from marriage separately to those separations from cohabitation. Moreover, in 45.5% of separations from marriage and 54.7% of separations from cohabitation, we have data for at least five years following the separation, so we are able to consider the longer term economic impact of divorce and the mechanisms which drive any recovery. The year immediately following separation is denoted as $t=0$, and all observations of separation are pooled over the 15 years of the sample.

It is important to note that since we are restricting our attention to those who separate, our results need to be interpreted as the average effect of separation *for those who separate*. Since separating or becoming divorced is not a random event, we cannot draw inferences about the potential experiences of separation on those who remain in a couple.

We measure economic well-being using traditional income measures. The BHPS allows us to split household income into individual labour, benefit and other income. Our variables of interest are household income, and the labour and benefit income of the individual undergoing the separation (all deflated to 1991 prices using the retail price index). We attribute the full household income at time $t=-1$ to the individual who separates. Implicitly, we are assuming that expenditure within the household is determined by a joint decision irrespective of the source of income, rather than reflecting an allocation of income between the parties, followed by individual expenditure decisions. This is not an uncontroversial assumption. For example, in this volume, Burgoyne et al. (forthcoming) present evidence on differing financial arrangements made by cohabiting couples, which may reflect differences in attitudes towards sharing income and making joint expenditure decisions. Further, the degree to which income is shared underpinned the Stack v Dowden (2007) ruling. However, to identify the actual allocation of resources within a relationship requires data on expenditure that can be attributed specifically to a particular individual (a possible example is spending on clothing), and also a way of accounting for expenditure on goods which are jointly valued by both individuals (such as heating). If the only data is details of income in each bank account, we cannot infer the actual allocation of resources within a partnership or the mechanism for determining expenditure decisions (Chiappori, Fortin and Lacroix, 2002). On the other hand, if income is not pooled and expenditure decisions by each party are taken independently, then predicating divorce payments on a 50% share of resources within marriage will distort incentives and raises issues of equity. For example, a woman with a share of household income of less than 50% before separation, may actually improve their income on separation if divorce payments were predicated on a 50% share in marriage.

A household with more individuals will require more resources to maintain each individual's standard of living. To control for this extra cost of having a larger household, household income is adjusted using the McClements (before housing costs) equivalence scale. Rather than just converting household income to income per head, this adjustment acknowledges the economies of scale inherent in maintaining a household. For example, adding a spouse to a household of one adult requires only the addition of 67% of the existing resources to maintain the previous individual standard of living. The weights for children vary with their age. Clearly, as the economies of scale from sharing a household increase, the implied cost of divorce (and the removal of the economies of scale) will increase. Our results will therefore be sensitive to the equivalence scale used. As pointed out by Jarvis and Jenkins (1999), income changes for men following separation are likely to be more sensitive to this since their change in household size on divorce is generally greater.

2.3 Results: Separation from Marriage

We restrict our attention to those who separate from a marriage. We present our results in three stages. First we discuss the characteristics of those who become divorced compared to those who do not divorce within a given time frame. Second, we present summary results on

financial loss on divorce, and finally we present the results of regression analysis which explore the raw trends in more detail. Throughout this analysis we are assuming that the timing of divorce is exogenous with respect to income changes.

2.3.1 Characteristics of divorcees

Since we focus on the subsection of the population who get divorced, it is instructive to consider how this group may differ from the rest of the population. We consider all those who are married in 1995 (wave 5 of the BHPS). We then split this group into those who remain married for the subsequent five years, and those who get divorced within that time period (ignoring those who drop out of the sample or experience separation due to the death of one partner). The influence of key characteristics on the probability of divorce is shown in the probit regressions presented in table 1. The coefficients on a particular variable should be interpreted as the difference in the probability of divorce when that variable is present. For example, home owners are 18% less likely to be in the sample of those who divorce, once we condition on other characteristics.

In terms of individual characteristics, the table shows that divorce is more likely for younger people. A higher score on the General Health Questionnaire (GHQ),⁶ is also associated with a higher divorce probability, indicating that those who divorce are (unsurprisingly) less happy than those who remain married. Women in poor health are less likely to divorce. Men who work more hours reduce their divorce probability, but those who earn more labour income are more likely to divorce.

Having cohabited before marriage increases significantly the probability of being in the sample of those who divorce, which is consistent with previous studies (see, for example, Axinn and Thornton (1992)).⁷ These differences in key characteristics suggest that there are important differences between households who divorce and those that do not and this is why we do not use those who remain married as a counterfactual for those who divorce.

2.3.2 Extent of financial loss on divorce

Household Income We turn now to considering how the household incomes of those who do divorce change in response to the shock. Figures 1 and 2 show the evolution of the composition of household income for high and low educated women, respectively.^{8,9} Both figures show a large drop in household income at the time of divorce of 42% for low educated women and 46.5% for highly educated women. Despite this, personal labour income does not appear to change at time zero in response to divorce. Recovery does occur, with average household incomes reaching their pre-divorce level nine years after separation for highly educated women. This appears to be driven by the growth of other labour income, namely the addition of income of any new partner.

The literature discussed earlier emphasises the role of state benefits in cushioning the short term consequences of divorce for women. The bar graphs above are suggestive of a similar role in our sample. However, this effect is likely to be important only for a small fraction of families, and so a bar chart reporting average incomes may be understating the importance of this benefit income for a subgroup of low income women.

⁶ The GHQ is a questionnaire originally designed to assess psychiatric illnesses, but now commonly used as a measure of subjective wellbeing, with a lower score indicating higher levels of wellbeing (see Taylor et al (2007) for more information).

⁷ This is thought to be a selection effect (Lillard, 1995).

⁸ Highly educated is defined as having qualifications above A Level or their equivalent.

⁹ Note that figures 1 and 2 include periodical payments received but not those paid out and so there is limited double counting.

Equivalised Income Discussion so far has neglected the potential economies of scale deriving from sharing a household. Figure 3 shows log income paths for men and women both in terms of absolute household income and household income equivalised using the McClements scale.¹⁰ All series show the change in log income relative to time $t=-1$, and so the scale on the y-axis shows the proportional change in income compared to the pre-divorce level. For women, absolute income falls more dramatically than equivalised household income. This is because household size has decreased: the husband's income has been lost but one fewer person needs supporting. This means that the fall in absolute income overstates the fall in the standard of living, and the increase in absolute income from adding an extra person to the household overstates the rise in the standard of living on repartnering. In order to increase her equivalised income, the woman must repartner with a man who brings at least 67% of her current income.

Men's household income and equivalised household income show a different pattern. Absolute income falls, though not to the same extent as women's. However, since women are usually the primary carers for children following separation, men's household size falls, on average, by more than women's, and this leads to average equivalised household income actually rising on divorce giving men higher equivalised income following divorce. This result is sensitive to the equivalence scale used and also to the measure of welfare. The greater the economies of scale, the less likely men are to increase their standard of living on divorce.

Recovery There are three key sources of recovery for women in the data: repartnering, benefit income and labour income. Figure 4 shows the role of benefit income and labour income more clearly. These figures plot the log of equivalised household income, personal labour income and benefit income around the time of divorce (for low educated women). As shown in the earlier figures, there is a clear drop in household income, and little response in labour income. It is also clear that there is an increase in benefit income received by separating women at the time of divorce. The highly educated women experience a similar (though smaller) increase in benefit income. This suggests that welfare benefits are important in providing an initial income boost. However, as seen in figures 1 and 2 this is only a small proportion of total household income.

The importance of 'other labour income' in driving the recovery in women's household income after divorce is indicative of repartnering. Figure 5 illustrates the proportion of our sample who have repartnered (either into cohabitation or marriage) in the ten years following separation. First, it is clear that men are more likely to repartner and to remarry. Second, the rate of repartnering is striking: within four years 51% of men and 43% of women are either remarried (24% and 24% respectively) or cohabiting (27% and 19% respectively).

2.3.3. Regression analysis

Income Changes In this section, we use regression analysis to establish whether the raw numbers presented so far are robust to controlling for individual and household characteristics.¹¹ We carry out four regressions, separately for men and women. The four dependent variables in these regressions are equivalised household income, total household income, benefit income and equivalised household income when the wife was not working prior to divorce ('male single earner').

¹⁰ We repeat our analysis using the McClements after housing costs equivalence scale which does not significantly alter our conclusions.

¹¹ In interpreting the numbers in the various regressions, we cannot usually distinguish between coefficients that may arise due to differences in individual types from coefficients that may have a causal interpretation.

The graphs discussed above provide a strong indication of the divergence in experience of men and women on divorce, and the reasons for the recovery of household income after divorce. However, changes in household income may be driven by changes in other characteristics, such as changes in the number of children in the household. In order to ascertain if the trends discussed above are robust to observable characteristics, we regress the change in log income on a set of demographic and other characteristics as well as time dummies (related to the time before and since divorce).

The results for women are presented in table 2. The first column shows the results with the change in log equivalised household income as the dependent variable. We see a significant fall (57%) at time $t=0$, accompanied by a smaller rebound (13%) at time $t=1$. The act of repartnering has a significant, positive impact on income (44%). The change in log absolute household income shows a larger immediate drop (83%), a larger rebound (20%) and a larger response to repartnering (56%). Benefit income increases significantly in the year of separation and the subsequent year, but falls on repartnering. The fourth column shows the equivalised household income equation just for women who were not active in the labour market in the year before separation (ie. time $t=-1$). The income fall is more severe (72%) for this group, but the recovery greater (38%), perhaps suggesting a greater ability for this group of women to increase their household income on divorce (eg. enter the labour market). Unreported regressions with the change in log personal labour income as the dependent variable show no trend over time.

Similar unreported regressions for men's data confirm the trends described in figure 3 above: equivalised household income increases by 13% on divorce, whereas absolute household income falls by 27%. Repartnering has a significant effect in increasing absolute income, but no significant effect on equivalised income. This suggests that men repartner with women whose personal income is cancelled out by the extra costs to the household. There is no clear trend in benefit income, and there are no clear trends for these men who split from a more traditional partnership. Indeed, we see no significant improvement in equivalised household income on divorce for these men. This is in contrast to the findings of McManus and DiPrete (2001) who, using US data, find that a traditional family structure is associated with greater gains for men on divorce.

Overall these results reinforce the conclusions drawn earlier: some men do benefit from divorce in terms of their equivalised income, and women recover over time from the initial income falls, mainly due to repartnering. Benefit income provides some support for a subset of women in the short term.

Recovery After Divorce We have so far emphasised that a majority of women benefit from a recovery over time in household income. At $t=5$, the median fall in household income relative to income prior to separation for women is 4.1% which is a substantial improvement on the initial fall of 57%. However, there is a large minority of women who suffer a more persistent loss in household income: even five years after divorce, the fall in income at the 25th percentile is 40.1%. We now look more closely at the characteristics associated with the recovery in log household equivalent income from time $t=-1$ to time $t=5$. This uses a subsample of 204 women who separate from marriage and who have valid income data for both time periods in question.

The first two columns of table 3 shows the results of regressions of the change in log household equivalised income on characteristics of women immediately before divorce and on changes in characteristics since divorce. The first column considers the role of characteristics observable before divorce. Greater recovery is associated with women who held a second job whilst married. This effect may be picking up lower income households, or may indicate greater flexibility in responding to divorce. A more limited recovery is

associated with older woman and women in poor health. Cohabiting before marriage is associated with a greater recovery. The second column shows that these characteristics have their impact through their effect on repartnering: the coefficients on age, cohabitation and poor health are no longer significant when repartnering is controlled for. In addition to repartnering, an increase in hours worked since divorce is associated with recovery. Finally, the table shows the effect of retraining. In our sample, 41 women (20%) retrain following divorce. When this retraining dummy is interacted with a dummy for the presence of children at the time of separation, we find that there is a split between those with children and those without: for those without children, retraining has no significant effect on income growth; for those with, retraining has a large and significant negative effect, possibly indicating retraining to accommodate childcare responsibilities.

As mentioned above, the key trend underlining recovery in household income for women is repartnering. The third and fourth columns of table 4 examine the characteristics of women who repartner, using a probit regression. We report the marginal effects of various characteristics on the probability of repartnering in the five years following separation. Younger women and those who previously cohabited are significantly more likely to repartner, which supports the results in the first two columns.

This analysis suggests those groups of women who suffer most from divorce are those who are older and those who have children. Part of the reason for their inability to recover financially compared to others is the lower chance of repartnering. The persistence of the fall in equivalised household income for these women highlights the importance of divorce in driving outcomes for women and their children.

Changes in Effects Over Time Our data covers separations occurring over a fifteen year period. However, our analysis so far has assumed that the effects of divorce are constant over time and that the average income fall on separation is the same in the early 1990s as in 2004. Over this period there have been various social changes including increasing divorce rates (albeit at a slower rate than previously), falling marriage rates and increased female labour force participation, as well as some key House of Lords rulings regarding property division at the time of divorce, and we might therefore expect that the extent of the income fall on divorce has changed over time. Due to the limited sample size we are unable to run the regressions using a full set of time-to-divorce and year dummy interactions. Instead we run the regression with equivalised household income as the dependent variable on two subsamples: an earlier period covering separations from 1992 to 1997, and a later period covering separations from 1998 onwards.

The results for women are presented in table 4. We see clearly that the impact of divorce is reduced in the later period, with women suffering a 42% fall in income relative to a 65% fall in the earlier period. Recovery is however less pronounced in the later period. This suggests improved insurance, which might be attributed to higher labour force attachment, against divorce in the period after 1997 compared to the 1990s, which is consistent with McKeever and Wolfinger's (2001) findings for the US. These results are also consistent with Jenkins (2008) for the UK, who stresses the increased role of in-work benefits as a means of providing insurance. For women, the positive effect of repartnering remains, as does the negative effect of having a child. Unreported results for men, however, show that their experience on divorce does not change over the two periods.

This analysis is suggestive of a reduction in the divergence between the experience of men and of women after divorce: women have become better insured against the income loss and men do not make the gain in equivalised income they did previously.

3. Financial Loss following cohabitation

Due to sample size restrictions, a number of previous studies have estimated income changes for a sample combining individuals who separated from marriage and those who separated from cohabitations (see, for example, Jenkins (2008)). Our larger sample size allows us to make comparisons between income changes resulting from splits from marriage and cohabitation. Figure 6 shows the evolution of log equivalised household income for men and women, split into those separating from cohabitations and those from marriage. The graph shows the change in log income since time $t=-1$.

On average, the income fall is smaller for those splitting from cohabitations. This might be explained by the fact that only 36% of women separating from cohabitations have children, compared to 69% of those from marriage. Recovery from cohabitation also occurs more quickly. We do not see the same instant jump upwards in equivalised household income for men splitting from cohabitations as described above for men divorcing their wives. This is consistent with the lower prevalence of children meaning that the equivalence scale changes less.

These figures are indicative of a split from cohabitation having a smaller economic impact than a split from marriage. This is especially pronounced for women, who experience much smaller falls in income, and recover more quickly than from divorce. It is difficult to draw stronger conclusions about the evolution of income over time after the separation because the data becomes more noisy as time since separation increases. However, our data suggests that a split from cohabitation is a less traumatic experience in terms of household income than a divorce.

This is consistent with the analysis of Manting and Bouman (2006) who study data from the Netherlands from 1989-2000, finding that cohabiting women experience a smaller income decline on cohabitation, and also that gender differences after the split disappear over time when considering a cohabitation. Avellar and Smock (2005) find a similar pattern in the US.

It is important, however, to stress that there may be a selection story underlying this conclusion: a woman divorcing from marriage may in fact be better off than she would have been had she been splitting from cohabitation. This would arise if the population of those splitting from cohabitations are less vulnerable (in terms of income) to separation than the population of those divorcing, for example because of not having dependent children. This would imply that had those divorcing instead separated from a cohabitation, they would have seen an even larger income fall.

4. The Effects of Divorce on Income and Consumption

The conclusion from our analysis of the BHPS is that recovery from separation occurs, but that it can be slow, and is less likely for older women or when children are present. This motivates the discussion of possible bases for settlement. There are therefore three aims of this section: firstly, to show the implications for earnings of alternative decisions within marriage; secondly, to show the implications for income post-divorce of alternative mechanisms for allocating resources; and finally to discuss the implications of the alternative allocation mechanisms for consumption.

In discussing alternative methods for calculating divorce settlements, the focus is on methods for allocating earned income and assets combined. There is discussion in the divorce literature of the desirability of 'clean breaks'. There are two separate issues: one is the desirability of calculating the amount of the settlement at the time of the divorce; the second is the

desirability of making all payments associated with a settlement at the time of divorce. Whilst full payment clean breaks would have the advantage of allowing the individuals to go their separate ways and prevent any dependency on the ex-spouse, such an arrangement is infeasible when human capital is an important component of wealth.

4.1 Wages and the Return to Experience

To make the analysis more transparent, we make the following assumptions, although the conceptual framework does not require these assumptions:

- A1 The potential income process faced by husband and wife is identical at the time of marriage
- A2 No individual assets prior to marriage and no inheritances
- A3 No retirement

Figure 7 shows potential earnings at each age following different decisions about participation in the labour force. We consider what happens to potential wages after exit from the labour force. Individuals who remain single and continue working full-time are estimated to increase their wages each year by about 2.4% in real terms (Eckstein and Wolpin, 1989). After 10 years of work, at D, their wages will have increased by 27%. For married individuals, there is potentially an extra return, leading them to E. Antonovics and Town (2004) estimate the benefit to marriage as a 20% wage premium, after controlling for selection, and show that this premium persists after divorce. Other evidence from the US (Korenman and Neumark, 1991) suggests that only a small portion of this benefit derives from support from a wife who is not working with the rest accruing from marriage whether or not the spouse works. This is therefore a benefit of being married independent of the decision to work or not. However, this finding is not uncontroversial. For example, Bardasi and Taylor (2005) analyse the male marriage premium for the UK using BHPS data, using a fixed effects approach, and find a much smaller marriage premium (around 4%), which declines with the hours of market work undertaken by the wife. The source of the marriage premium is important to determine whether there is double counting of the effects of decisions within marriage: double counting would arise if both the loss from not working and the gain from spousal support are compensated, whereas it would not arise if the gain from spousal support was simply a marriage premium.

Those who exit are not able to obtain the wage increases from extra experience, and in addition, their skills are likely to depreciate. Without depreciation, they would be at A after 10 years, with potential earnings 66% of their partner. With a depreciation rate of 2% a year (as estimated in Mincer and Ofek (1982)), potential earnings on returning to work after 10 years are 54% of their partner's earnings.¹² These numbers are of course only indicative and are based on average returns to experience and depreciation and ignore any gender wage gap. In reality, returns to experience are likely to be age dependent and higher for younger workers. This would make the earnings deficit harder to recover from if older when reentering the labour market. The numbers also differ substantially across occupation and education groups: better educated workers tend to receive greater returns to experience and are subject to faster wage depreciation.

4.2 Divorce Payments

¹² If we ignore the 'marriage premium' benefit accrued by the working husband where the estimates are less reliable, potential earnings would be 65% of the husband.

This discussion of the cost of non-participation is in terms of lost realised earnings and lost earnings potential. Clearly, however, there are benefits of not participating in the labour market, both from the support this may offer to a partner, and from childcare. To the extent that costs and benefits are both realised within the marriage, divorce payments should be independent of such costs and benefits. The difficulty is that decisions within marriage have costs and benefits after divorce. Figure 8 puts figure 7 into the context of divorce. In this example, divorce happens before reentry into the labour force.

At the time of divorce, earnings of the partner who has kept working are at E, whereas the wife who exited 10 years previously is at 54% of this level at B. This difference can be decomposed into the higher wage that arises if married (z_1) and the opportunity cost of not working (z_2). The amount z_1 is referred to as the 'restitution damages' and the amount z_2 as 'reliance damages' (Dnes, 1999). However, using z_1 and z_2 as calculations of the benefit and cost of not working underestimate both the cost and the benefit. The boost to wages from being supported within marriage persists after divorce, generating the benefit x_1 and y_1 . Similarly, the cost to wages from not-working persists beyond divorce, with the additional cost to potential earnings of $x_2 + y_2$. However, actual earnings after divorce depend on when the non-working partner reenters work, with each year of non-participation lowering potential wages further. In the figure, this occurs three years after divorce, when the potential wage has fallen a further 6%.¹³

These decisions mean that total resources post-divorce are given by:

$$\text{Total} = \underbrace{x_4}_{\text{Wife's actual income}} + \underbrace{x_4 + x_3 + x_2 + x_1 + y_4 + y_3 + y_2 + y_1}_{\text{Husband's actual income}}$$

The realised monetary loss post-divorce as a result of non-participation (i.e. the difference between actual earnings after divorce and potential earnings if there had been no period of exit) is given by:

$$\text{Loss} = x_3 + x_2 + y_4 + y_3 + y_2$$

However, this is misleading as an estimate of the cost of decisions within marriage, because part of this loss is due to decisions after divorce. The monetary loss we should be considering is the impact on potential earnings of decisions within marriage. This is given by:

$$\text{Potential Loss} = x_2 + y_2$$

This potential loss is the 'compensible loss' to the woman. An allocation mechanism based on compensation would split this loss 50:50 between the husband and wife. In the example where (i) the marriage lasted 10 years, (ii) the wife was not working for any of that period, and (iii) potential earnings before marriage were identical, then the husband would be paying approximately 17% of his earnings.¹⁴

¹³ We can relax the assumption of equal income processes, so that, for example, the spouse with the greater earning potential works while the other takes time out of the labour market. The simplest way to model this is to assume that figure 8 shows the earnings process for the spouse that is not working, whereas the spouse that is working has a greater income. This implies that the total resources post-divorce will be greater than if earnings are equal. However, the potential earnings post-divorce of the non-working spouse will not vary with the income of the working spouse.

¹⁴ This assumes that if the wife had worked, her wage would have grown by 3% per year, instead of declining by 2% per year. After 10 years, the obtainable wage is 60% of the wage that would have been earned and this difference is then split 50:50.

This however ignores the ongoing benefit to the husband of marriage. Allowing for these benefits generates the difference in potential earnings that arises from the marriage:

$$\text{Difference in potential} = \underbrace{x_2 + y_2}_{\text{Loss to wife's potential earnings}} + \underbrace{x_1 + y_1}_{\text{Increase in husband's potential earnings}}$$

This would imply the husband making a payment of 23% of earnings in the example above. If there are benefits that accrue to the husband only if his wife is not working, then either the costs or the benefits should be used in determining the amount, but not both.

To focus on the incentive effects of this allocation, we start by assuming that the decisions to marry and to divorce are exogenous and decisions about labour market participation do not affect the bargaining position within marriage. The allocation mechanism then has a potential incentive effect on participation and on spousal support within marriage. A mechanism which under-rewards the benefit of marriage to the husband's career that persists after divorce (under-estimates $x_1 + y_1$) or under-estimates the loss after divorce to potential earnings of not-working within marriage (under-estimating $x_2 + y_2$) will impose financial losses disproportionately on the woman. This is the context in which the McFarlane ruling should be assessed. The McFarlane ruling can be interpreted as arguing in favour of using estimates of this 'difference in potential': the marriage had been long and Mrs McFarlane had stopped work to bring up the children incurring the loss of earnings potential, in addition to the support provided to her husband. If this difference in potential earnings were not accounted for in divorce settlements, then the lost earnings potential could be mitigated by increasing participation within marriage. However, this would imply a distortion to the choice within marriage caused by the divorce settlement. Correctly calculating the compensable loss would then reduce labour force participation within marriage relative to this scenario but would make the allocation mechanism neutral regarding the participation decision within marriage. In other words, the incentive effect of the McFarlane ruling reflects the removal of a pre-existing distortion.¹⁵ Two other points about the McFarlane ruling are important in this context: first, there is a focus on the retraining possibilities after divorce and a suggestion that the payments should be time limited. This time-limited nature of support is not underpinned by the evidence on the returns to experience and on the returns to marriage which are both highly persistent benefits. Second, there was concern in the ruling about payments being used for savings, but since savings are a mechanism for deferring consumption, the use of a payment would not be relevant if earnings were the basis for the calculation. We return to the incentive effects of the Miller ruling below.

It is, however, worth stressing that if compensable loss were based on actual rather than potential earnings, it would not be neutral with respect to the participation decision. This is because the cost of the decision not to participate post-divorce would then be borne only partly by the woman who is not participating. The husband bearing part of the cost (of reduced available resources) would have no part of the decision about whether or not to participate.

Dnes (1999) argues that one of the principal difficulties with using allocation mechanisms based on the costs and benefits of decisions within marriage is that it may make divorce too cheap for one party relative to expectations of the cost of continuing with the marriage. This arises in particular when the underlying earnings potential of the husband and wife differ. This would give rise to opportunistic behaviour and the incentive for the higher earning partner to divorce and to renege on the implicit agreement within the marriage. Discussion of

¹⁵ One criticism of the equal split of the costs and benefits of decisions within marriage is that the incentive to divorce lies with the party who in practice bears more than 50% of the net costs.

such implicit agreements and expectations raises the issue of allocation on the basis of consumption rather than earnings loss.

4.3 Allocations on the Basis of Consumption

An alternative to making divorce payments dependent on earnings or earnings loss is to use a measure of consumption. The rationale for this lies in a desire to use allocation mechanisms to ensure needs are met, or insurance is provided against divorce, or that allocations should be set to compensate for lost expectations. However, this is the issue of whether divorce allocations are about maintaining a standard of living and honouring a commitment within marriage, versus having divorce allocations as a way to ensure appropriate allocation of the benefits and costs arising from the marriage. The former leads to a consumption based rule, the latter to an income related rule.

Irrespective of the mechanism, it is important to understand the effects of divorce on consumption because this is more closely related to welfare than income. The main point about divorce in this context is that even if resources are split equally, the standard of living of each individual will fall because it is cheaper for two people to live together than separately: divorce means that these economies of scale of sharing a house are lost. This was highlighted in section 2 above where controlling for household size and composition was shown to be crucial to conclusions about the consequences of divorce. This is reiterated in Figure 9 which superimposes consumption choices pre- and post-divorce. To make this simple, the assumption is that consumption is smoothed before divorce and smoothed after divorce. On divorce, if we ignore saving, the total combined consumption will fall because of the lost economies of scale, and this is reflected in the fall to $c_{Div,Equal}$ in the figure. This is the heart of the problem for divorce: there is insufficient income for both parties to maintain their pre-divorce standard of living. It is, of course, possible for one party to maintain their standard of living if the other party receives less, with the floor on this diagram being the consumption level from complete independence (or autarky). Indeed, as shown earlier, men do better on these measures after divorce than they did within marriage.

A further issue is that these graphs showing potential earnings and actual earnings ignore the possible presence of fixed costs of work associated with childcare. This suggests that the graphs overstate the potential earnings (and consumption) of the spouse and the earnings net of childcare costs are likely to be substantially lower. An alternative way of allowing for childcare costs associated with work would be to calculate the utility value of alternative income paths. This would recognise explicitly that the value of different income streams may differ across spouses depending on their obligations. In principle, this notion could be made more precise by considering consumption paths over the life-cycle and the impact of divorce on those consumption paths. Implicitly this recognises that the costs of decisions taken within marriage (eg. having children) should be split between the parties – exactly analogously to the argument for splitting the compensable loss to earnings.

Where there are substantial differences in the underlying earnings potential or asset holdings of the two parties, the compensation basis for settlement makes divorce ‘cheap’ for the wealthier party, as discussed above. Therefore, this discussion of allocation on the basis of consumption is most appropriate when there are substantial differences in the underlying earnings potential or asset holdings of the two parties, as with the Miller ruling.

5. Conclusions

The aim of this paper was to put the Miller-McFarlane (2006) House of Lords ruling into an economic context. There are two separate issues. The first issue is identifying the economic consequences of divorce and identifying who are the relative winners and losers. This is informative about the direction in which the law might want to move. The second issue is

identifying the economic assumptions that can underpin a move to settlement on the basis of Miller-McFarlane. One of the issues here is the difference between the implications of the Miller ruling and the implications of the McFarlane ruling.

We use fifteen years of data to address the economic consequences of divorce. The stark conclusion is that men's household income increases by about 23% on divorce once we control for household size, whereas women's household income falls by about 31%. There is partial recovery for women, but this recovery is driven by repartnering: the average effect of repartnering is to restore income to pre-divorce levels after nine years. Those who do not repartner tend to be older and have children. For these individuals, and for those in poor health at the time of divorce, the long-term economic consequences of divorce are serious. For some, these long-term consequences are offset by increased labour supply, but the effects are small, and this ignores any extra costs such as childcare which may arise from working. For others, government provided benefits provide some cushion to the cost of divorce. On the positive side, we present evidence that these costs of divorce for women have been mitigated over time and more recent divorces have not led to the same falls in household income as earlier divorces.

These conclusions on the financial consequences of divorce highlight the importance of the basis on which post-divorce settlements are calculated. The McFarlane case is an example of the scenario when the economic consequences of divorce are most severe for the woman. The key change highlighted by the McFarlane ruling was an attempt to calculate the impact on post-divorce income arising from decisions within the marriage. In particular, this involved calculating the lost return to experience that would have occurred if Mrs McFarlane had kept working and calculating the increase in her husband's post-divorce earnings due to the marriage. In this paper, we summarise the evidence on the likely size of these effects and highlight the possible incentive effects. In particular, correctly calculating the difference to post-divorce earnings arising from decisions within marriage removes some of the distortions to decisions about labour supply within marriage.

The Miller case arose from a very different scenario because of the short duration of the marriage and the absence of children. The consequences of decisions within the marriage for earnings would appear to be minimal in this case, arising only from the increase in Mr Miller's earnings during the marriage. It is hard not to draw the conclusion that the basis for settlement was maintaining the consumption level for Mrs Miller that had implicitly been promised by Mr Miller. This judgement is based, therefore, on an assessment of what the implicit contract of marriage is, rather than being based on the economic consequences of decisions within marriage. The incentive problem with this ruling is that marriage becomes potentially very costly when there are differences in earnings potential – the basis for divorce settlement will act to discourage marriage in these cases. This is in contrast to the McFarlane ruling where the basis for divorce settlement moves divorce to having a neutral effect on decisions within the marriage.

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Table 1: Characteristics driving divorce: Probit regressions

	Women	Men
Age	-0.0013 (0.0006)	-0.0023 (0.0007)
Number of children	0.0013 (0.0045)	-0.0010 (0.0053)
Race (not white)	0.0108 (0.0191)	0.0021 (0.0190)
In poor health	-0.0173 (0.0065)	-0.0073 (0.0100)
Score in GHQ	0.0865 (0.0177)	0.0750 (0.0211)
Household size	0.0012 (0.0037)	-0.0013 (0.0045)
Home owner	-0.0132 (0.0082)	-0.0059 (0.0087)
Asset income > £100 pa	-0.0042 (0.0074)	-0.0028 (0.0075)
Highly educated	-0.0057 (0.0061)	0.0003 (0.0065)
Working	-0.0005 (0.0085)	-0.0046 (0.0126)
Hours worked per week	0.0001 (0.0003)	-0.0003 (0.0002)
Has second job	0.0109 (0.0107)	0.0140 (0.0133)
Personal labour income (£000s)	-0.0007 (0.0007)	0.0007 (0.0004)
Equivalised household income (£000s)	0.0000 (0.0002)	-0.0003 (0.0004)
Household benefit income (£000s)	-0.0007 (0.0012)	-0.0002 (0.0015)
Reports financial difficulties	0.0078 (0.0095)	0.0182 (0.0137)
Previously married	-0.0108 (0.0077)	0.0206 (0.0159)
Marriage tenure (years)	-0.0004 (0.0006)	0.0005 (0.0007)
Cohabited before marriage	0.0456 (0.0106)	0.0362 (0.0106)
Mean divorce probability	0.0289	0.0267
Observations	3097	2347

Coefficients show marginal effects and should be interpreted as the change in probability of divorce for a one unit change in that variable relative to the probability of divorce of an individual with mean characteristics (mean divorce probability).

Standard errors in parentheses.

Bold denotes significance at 10% level.

Table 2: Regression: Growth in Income (women)

Variable	Equiv. HH income	HH income	Benefit income	Equiv. HH Inc. (single male earner)
<i>t=-1</i>	-0.003 (0.039)	0.014 (0.039)	0.072 (0.051)	0.018 (0.081)
<i>t=0</i>	-0.572 (0.044)	-0.826 (0.045)	0.266 (0.061)	-0.721 (0.090)
<i>t=1</i>	0.129 (0.047)	0.199 (0.047)	0.376 (0.065)	0.377 (0.095)
<i>t=2</i>	-0.035 (0.048)	-0.014 (0.048)	0.003 (0.066)	0.037 (0.096)
<i>t=3</i>	0.004 (0.048)	0.034 (0.049)	0.013 (0.066)	0.067 (0.096)
<i>t>3</i>	-0.026 (0.037)	0.022 (0.037)	0.027 (0.050)	0.065 (0.075)
Repartnered	0.440 (0.054)	0.557 (0.054)	-0.330 (0.071)	0.294 (0.099)
Partner	0.008 (0.027)	0.045 (0.028)	0.006 (0.039)	0.057 (0.057)
Child present	-0.082 (0.022)	-0.047 (0.022)	0.111 (0.034)	-0.089 (0.050)
Home owner	-0.017 (0.023)	-0.002 (0.023)	-0.013 (0.030)	-0.002 (0.045)
Asset income>£100 pa	-0.075 (0.029)	-0.077 (0.030)	0.027 (0.043)	-0.107 (0.071)
Working	0.064 (0.022)	0.055 (0.022)	-0.105 (0.028)	0.075 (0.047)
Receives transfer	0.033 (0.030)	0.046 (0.030)	0.085 (0.037)	0.081 (0.065)
Makes transfer	0.044 (0.055)	-0.007 (0.056)	-0.208 (0.082)	-0.297 (0.127)
Observations	3766	3766	2738	1253
People	417	417	297	138

Coefficients should be interpreted as the proportional change in income on a discrete change in the variable (or proportional change where continuous).

Standard errors in parentheses.

Bold denotes significance at the 5% level.

Other controls: age, age², age at separation and at marriage, marriage tenure, previous marriage, education, race, prior cohabitation, poor health and holding a second job.

Table 3: Regression: recovery after divorce (women)

Variable	Change in log household income		Repartnering (probit)	
Characteristics before divorce				
Age	-0.030	-0.019	-0.028	-0.026
	(0.015)	(0.015)	(0.010)	(0.011)
Child present	-0.154	0.126	-0.219	0.002
	(0.169)	(0.177)	(0.112)	(0.139)
Race (non-white)	0.449	0.581		
	(0.428)	(0.413)		
In poor health	-0.398	-0.221	-0.088	-0.189
	(0.226)	(0.301)	(0.141)	(0.181)
Household size	0.079	0.088	-0.019	-0.015
	(0.064)	(0.060)	(0.043)	(0.046)
Home owner	-0.090	-0.153	0.037	0.160
	(0.148)	(0.156)	(0.096)	(0.111)
Asset income > £100 pa	0.064	0.081	0.188	0.101
	(0.168)	(0.157)	(0.114)	(0.124)
High education	0.102	-0.027	-0.026	-0.027
	(0.134)	(0.132)	(0.088)	(0.099)
Working	-0.212	-0.299	0.040	-0.075
	(0.195)	(0.242)	(0.125)	(0.186)
Hours worked	0.008	0.021	-0.005	-0.008
	(0.006)	(0.007)	(0.004)	(0.005)
Holds second job	0.446	0.583	0.159	0.128
	(0.190)	(0.181)	(0.129)	(0.140)
Marriage tenure	0.026	0.022	0.022	0.016
	(0.015)	(0.015)	(0.010)	(0.011)
Previously married	-0.226	-0.252	0.027	-0.080
	(0.222)	(0.214)	(0.149)	(0.153)
Cohabited before marriage	0.273	0.163	0.451	0.431
	(0.139)	(0.138)	(0.073)	(0.079)
Characteristics at t=5				
Partner		0.409		
		(0.127)		
New Child		-0.094		-0.399
		(0.149)		(0.089)
Started work		-0.068		-0.195
		(0.213)		(0.143)
Stopped work		-0.017		-0.012
		(0.200)		(0.152)
Retraining		0.138		0.021
		(0.276)		(0.199)
Retraining interacted with child at t=-1		-0.534		-0.171
		(0.320)		(0.210)
Change in hours		0.021		-0.004
		(0.005)		(0.004)
Mean probability of repartnering			0.430	0.424
Observations		204		200

Coefficients should be interpreted as the proportional change in income on a discrete change in the variable (or proportional change where continuous) for columns 1 and 2; or the change in probability of repartnering relative to the mean probability of repartnering on a discrete change in the variable (or proportional change where continuous) for columns 3 and 4. Probit results report marginal effects.

Standard errors in parentheses.
Bold denotes significance at the 10% level.
Other controls: changes in home ownership and health status.

Table 4: Regression: growth in income, changes over time (women)

	to 1997	from 1998
<i>t</i> =-1	-0.026 (0.053)	0.016 (0.059)
<i>t</i> =0	-0.648 (0.058)	-0.417 (0.072)
<i>t</i> =1	0.146 (0.062)	0.069 (0.076)
<i>t</i> =2	-0.048 (0.061)	-0.036 (0.081)
<i>t</i> =3	-0.004 (0.062)	-0.005 (0.085)
<i>t</i> >3	-0.048 (0.046)	0.040 (0.082)
Repartnered	0.430 (0.062)	0.456 (0.119)
Partner	0.001 (0.034)	0.023 (0.051)
Child present	-0.090 (0.030)	-0.075 (0.034)
Home owner	-0.005 (0.030)	-0.042 (0.036)
Asset income > £100 pa	-0.090 (0.040)	-0.051 (0.042)
Working	0.071 (0.029)	0.047 (0.034)
Receives transfer	0.031 (0.037)	0.035 (0.052)
Makes transfer	-0.009 (0.072)	0.125 (0.086)
Observations	2368	1398
People	213	204

Coefficients should be interpreted as proportional change in income on a discrete change in the variable (or proportional change where continuous).

Standard errors in parentheses.

Bold denotes significance at 5% level.

Other controls: age, age², age at separation and at marriage, marriage tenure, previous marriage, education, race, prior cohabitation, poor health and holding a second job.

Figure 1: Decomposition of household income (high education women)

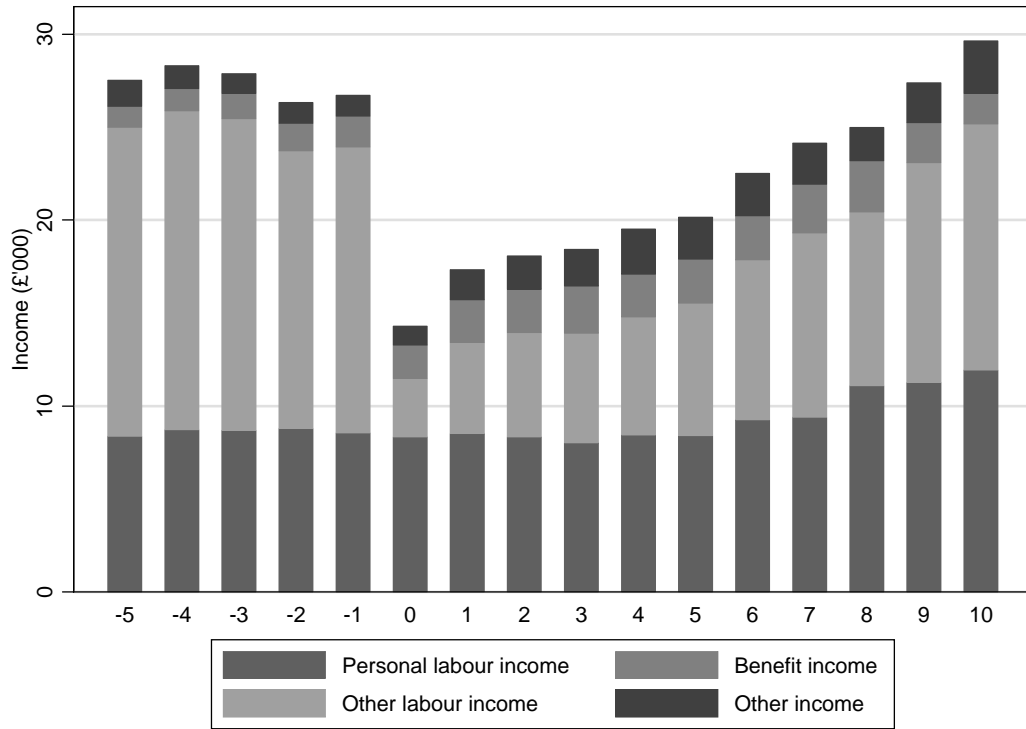


Figure 2: Decomposition of household income (low education women)

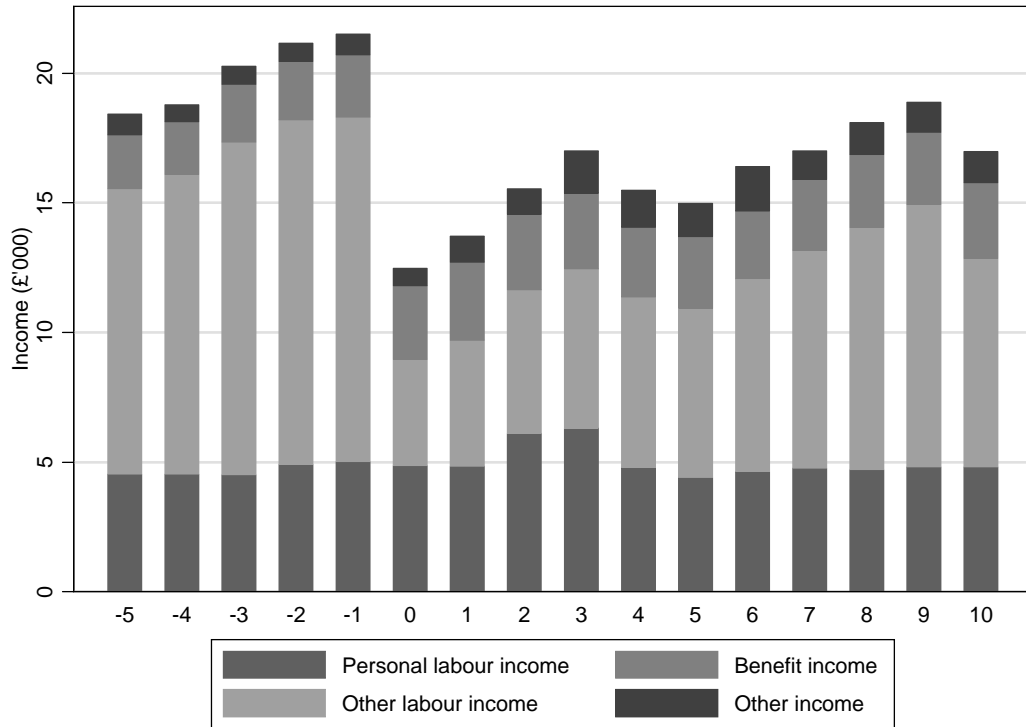
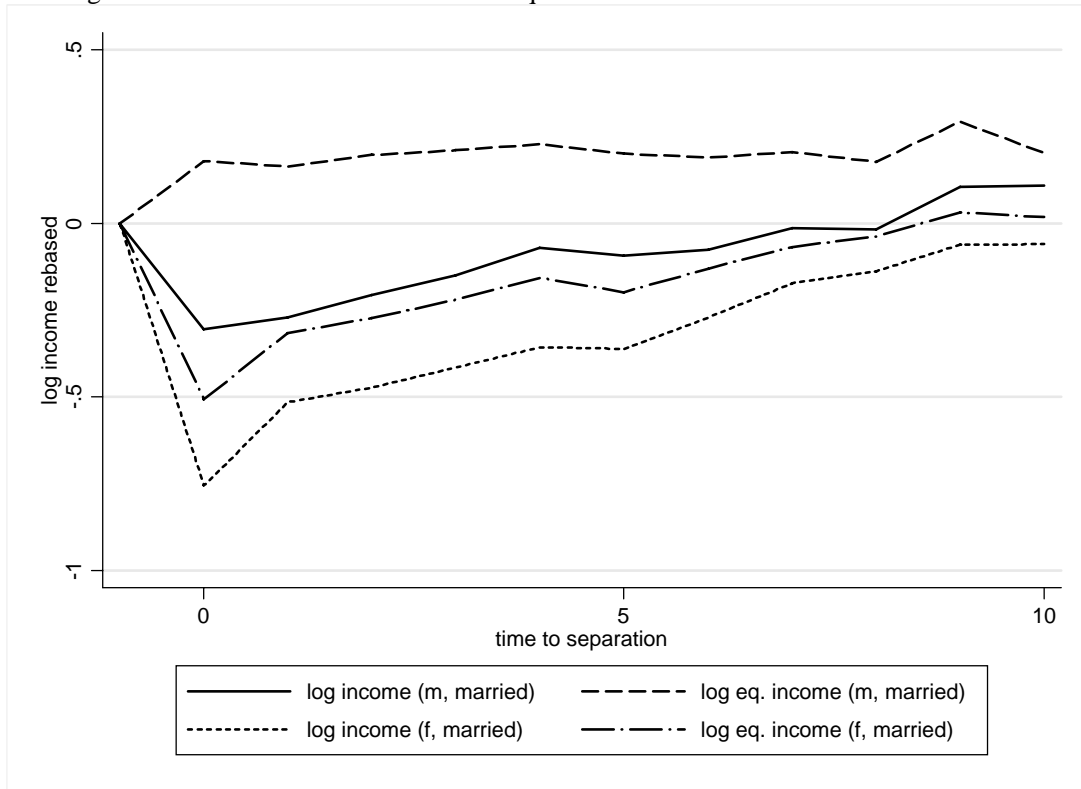


Figure 3: Evolution of actual and equivalised household income after divorce



Note: All series show change in logs relative to time $t=-1$.

Figure 4: Income levels before and after divorce (low education women)

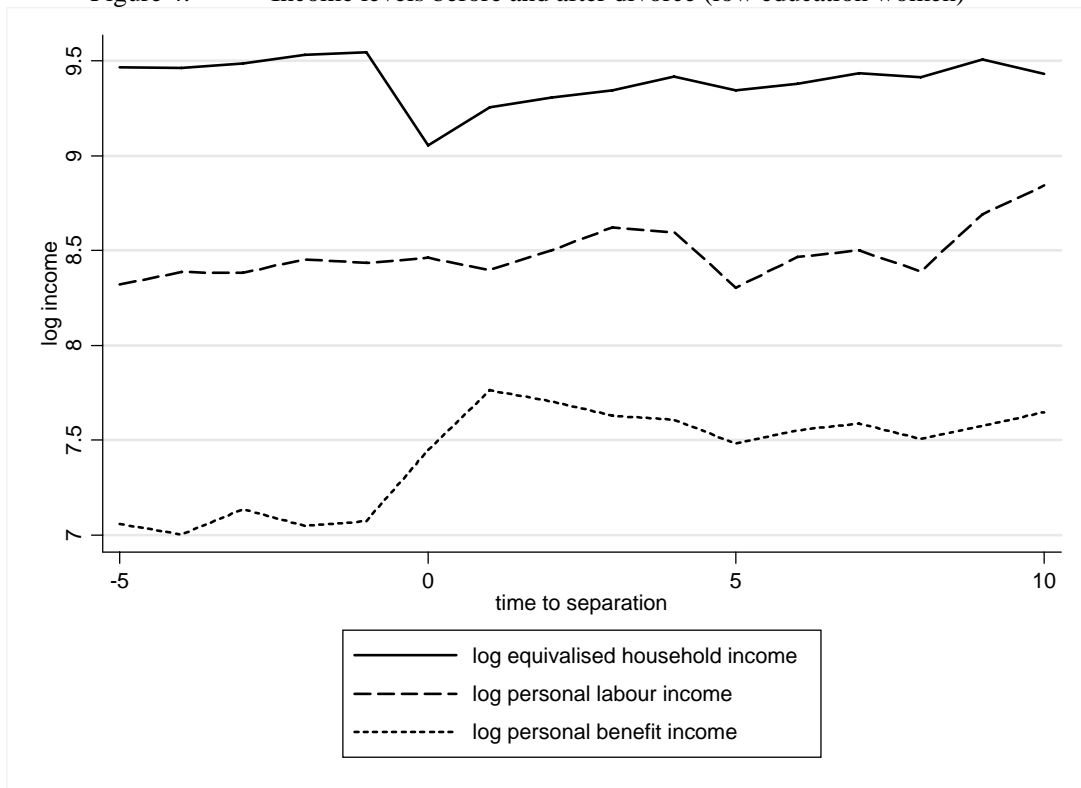


Figure 5: Repartnering after divorce

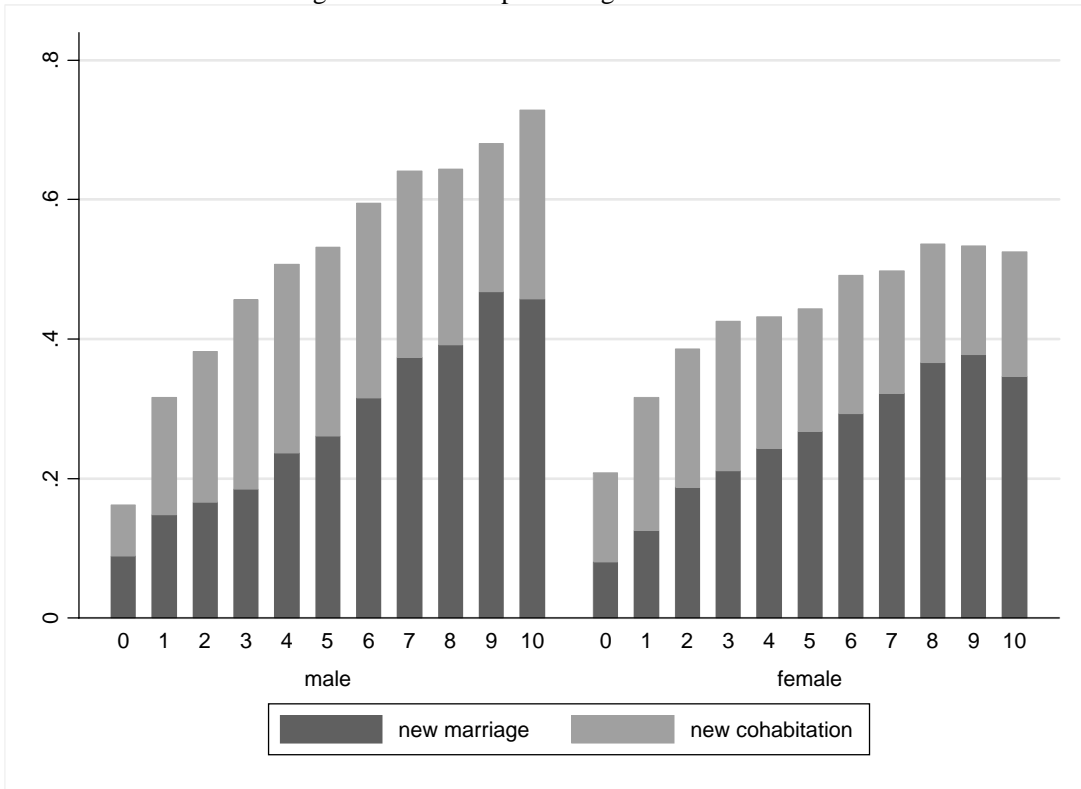
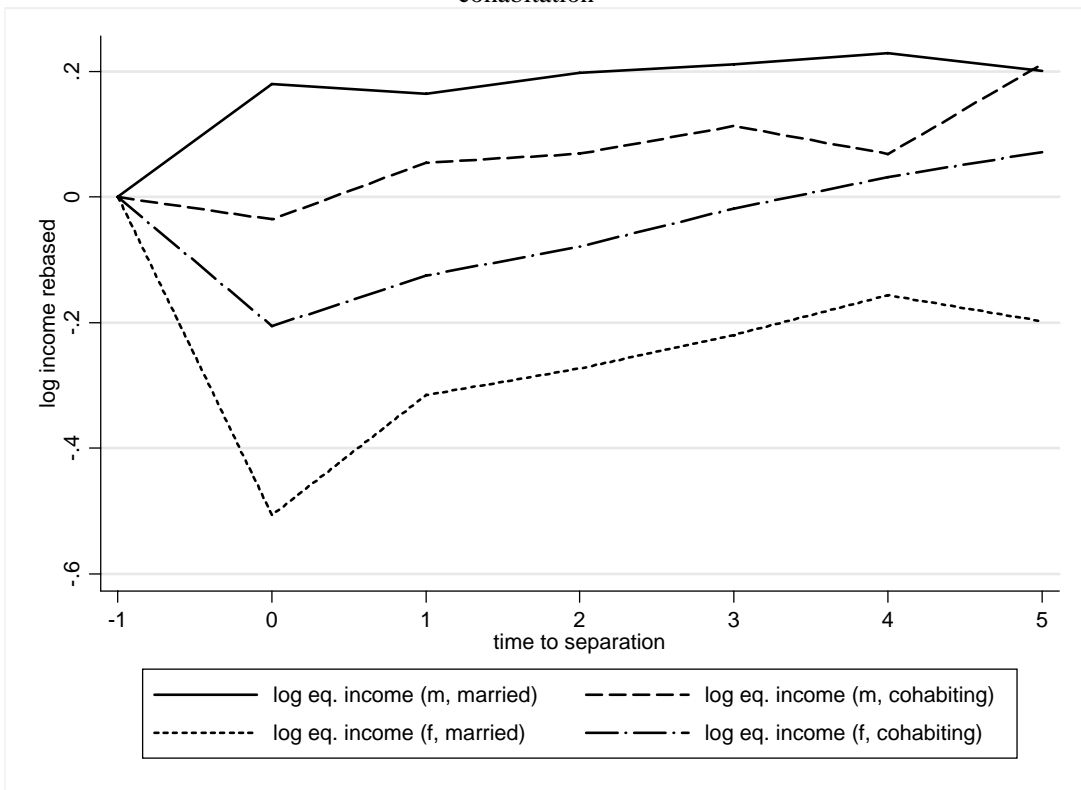


Figure 6: Comparison of income movements after split from marriage versus cohabitation



Note: All series show change in logs relative to time $t=-1$.

Figure 7: Earnings over the life-cycle

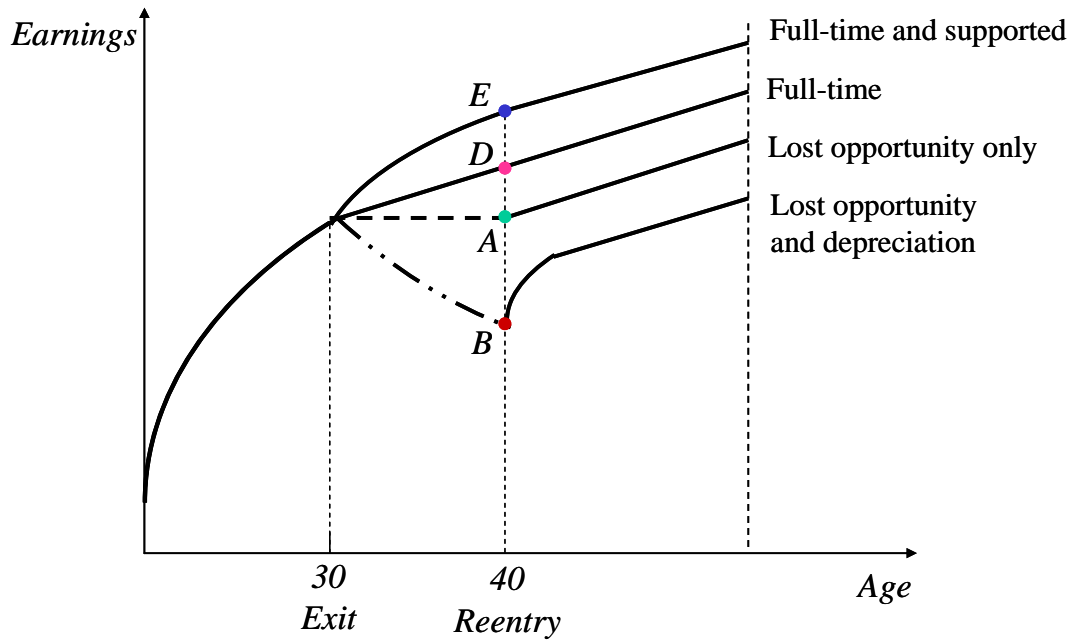


Figure 8: Divorce and earnings over the life-cycle

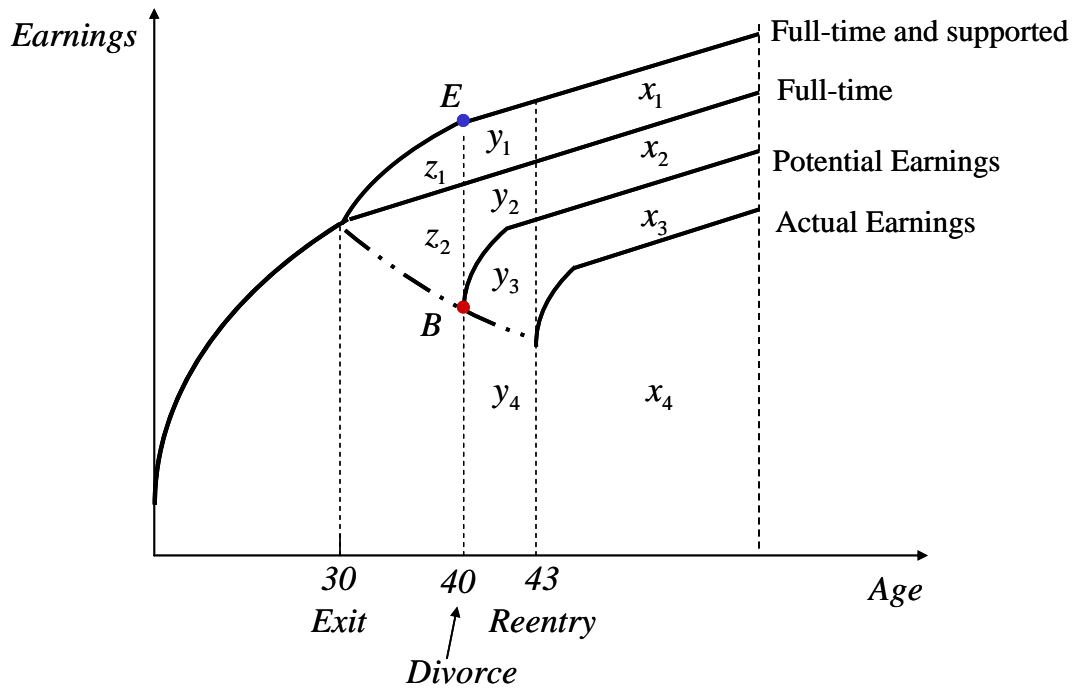


Figure 9: Consumption and earnings over the life-cycle

