

Open Research Online

The Open University's repository of research publications and other research outputs

Unpacking within-household gender differences in partners' subjective benefits from household income

Journal Item

How to cite:

Himmelweit, Susan and de Henau, Jerome (2013). Unpacking within-household gender differences in partners' subjective benefits from household income. *Journal of Marriage and Family*, 75(3) pp. 611–624.

For guidance on citations see [FAQs](#).

© 2013 National Council on Family Relations

Version: Accepted Manuscript

Link(s) to article on publisher's website:
<http://dx.doi.org/doi:10.1111/jomf.12027>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's [data policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk

Unpacking within household gender differences in partners' subjective benefits from household income

Running head: Unpacking within household gender differences

Jerome De Henau and Susan Himmelweit

Faculty of Social Sciences,

The Open University,

Walton Hall,

Milton Keynes, MK7 6AA

United Kingdom

Email: j.de-henau@open.ac.uk and s.f.himmelweit@open.ac.uk

Phone: 0044 1908 659732

Acknowledgments: the research underlying this paper was conducted as part of the research project Gender and Intra-Household Entitlements: A Cross-National Longitudinal Analysis (GenIX), supported by the Economic and Social Research Council [grant number RES-062-23-1491]. The authors gratefully acknowledge the contributions of the other members of the GenIX team, Cristina Santos and Zeenat Soobedar. We would also like to thank the guest editor of this special issue, Fran Bennett, for invaluable support and suggestions, as well as three anonymous referees for their careful and detailed comments.

Abstract

This paper examines how contributions to household resources, indicated by employment status, influence satisfaction with household income (SWHI) for members of male/female couples. We take changes in SWHI, which may differ within couples, to indicate changes in perceived benefits from their common household income, benefits that can go beyond individual consumption. Using data from the British Household Panel Survey for 2,396 couples from 1996 to 2007, three gender effects are identified. First, men predominate in making the type of contribution that most positively influences SWHI, namely full-time employment. Second, the effect of contributions depends on the gender of the contributor, with men's employment being more influential than women's. Third, within couples, making the more influential contribution, as men tend to do, leads to relatively greater SWHI. We conclude that gender asymmetry in contributions made to household resources is one way in which gender inequalities invade and inhabit households.

Keywords: family resource management; gender; inequality; paid work; spousal roles; unpaid family work

This paper develops a new method for investigating how gender influences the distribution of resources within households by comparing answers to a question about satisfaction with household income (hereafter SWHI) between members of a male/female couple. This gives subjective evidence on how the benefits of that joint household income are distributed. SWHI has the advantage that it may capture benefits of household income that are not specifically about individual consumption, but might include, for example, aspects of financial autonomy, opportunities, security, status, and collective expenditure, including on household public goods. By using an individual subjective measure we use each respondent's own assessment of how those not objectively commensurable benefits are balanced against one another.

Following the findings of psychologists who have extensively studied the validity and interpretation of such subjective 'satisfaction' variables, we take it that people's SWHI depends on how far it allows them to make progress "toward valued goals" (Diener, Suh, Lucas, & Smith, 1999, p. 295). For single-person households this correspondence is straightforward but for couples, the pursuit of an individual's goals will depend not only on the level of their household income, but also on the extent to which he or she can use joint household income to benefit in that way (Vogler, 1998). Given that both members of a couple are assessing the same household income, it is reasonable to assume that if their relative opportunities to benefit from that income shifts then so might their relative satisfaction with it. This can be investigated by examining the factors affecting the difference in a couple's answers, controlling for other possible influences on relative satisfaction levels, including unobserved personality traits. This mainly methodological paper unpacks these interactions by exploiting the properties of panel data sets to provide a new approach to analysing changes in the outcomes of intrahousehold resource allocation, and through that to the

analysis of the factors that contribute to the reproduction of gender inequalities within households.

As one of the main factors identified in the literature as influencing intrahousehold power and access to resources, we investigate the contributions that both partners in a couple make to their household's current or potential income, using individual labor market status as our main indicator (Sen, 1990; Himmelweit, Santos, Sevilla, & Sofer, 2013, this issue). Because labor market status allows us to distinguish different reasons for less than full-time employment, it can also be used as indicator of domestic or caring contributions that are not themselves financial but may enable partners to earn an income.

How, in a couple, might each partner's contribution influence their own and their partner's satisfaction with their common household income, and how might gender come into this? Four types of gender differences could occur and these define the research questions of this paper. First, do different types of contributions influence SWHI differently - so that, for example, paid employment has a greater impact than domestic activities, for either or both partners? The gender aspect here is that contributions are unequally distributed by gender (men on average devote more time to paid work and women to housework and childcare; both could be seen as contributing directly or indirectly to household income). Second, does the influence of a type of contribution on SWHI, in either or both partners' assessment, depend on the gender of the contributor? For example, men's employment could have more influence than women's if, through social expectations about breadwinning roles, it is seen as indicating more about future prospects and thus a couple's financial security.

The remaining research questions arise from interpreting changes in partners' assessment of their common household income that differ as reflecting a shift in relative benefit from that

income. So, third, when individuals make a contribution that has a positive influence on SWHI, does their satisfaction with their household income increase more than their partner's, which we would interpret as a sign of gaining relatively greater benefit from that income? For example, does the SWHI of those moving into employment increase more than their partner's because the former gains relatively more benefit from the increased household income that their employment provides? Again this is relevant to gender if those making the more influential contributions are unequally distributed by gender. And, fourth, to what extent does the effect of making the more influential contribution itself vary by gender? These four research questions are relevant to how gender inequalities are reproduced, in particular how gender inequalities in society at large, both structural and normative, are internalised within households, and to whether and how this contributes to the reproduction of gender inequalities both within and beyond the household.

Previous research provides some theoretical backing and evidence for each of these possibilities. Employment has generally been found to be more important to the household's financial situation than domestic contributions (Agarwal, 1997; Noonan, 2001) and men's employment more than women's (Mies, 1982). Another finding has been that greater perceived contributions resulted in greater shares of household resources (Sen, 1990; Zelizer, 1994). That employment and the scale of resources individually contributed confer intrahousehold power more generally is the basis of the resource theory in sociology (Blood & Wolfe, 1960; Nyman & Dema, 2007) and has been shown to affect the allocation of household resources by collective and bargaining models in economics (Donni, 2008; Himmelweit et al., 2013). That this can be tempered for the woman by male breadwinner ideology (Komter, 1989; Sen, 1990), by couples "doing gender"—acting to preserve gender roles and hierarchy—(Tichenor, 1999; West and Zimmerman, 1987)—and by money

management practices that support hidden forms of male power has also been documented (Bennett et al., 2010; Vogler & Pahl, 1994).

The remainder of the paper will develop our arguments further and illustrate its method empirically using data from the British Household Panel Survey. The next two sections will briefly outline relevant background literatures, first about intra-household resource allocation and then about the use of satisfaction measures, explaining their implications for our study. Then we outline the data and empirical method used to address our research questions before, in the following section, turning to our results. The concluding discussion draws out implications for the reproduction of gender inequalities within and beyond households and adds some thoughts about how our method could be used in other research.

BACKGROUND

Allocation of resources within households

Bargaining and collective models of household decision-making, allow for factors internal and external to the household to affect members' relative power and the distribution of household resources (Donni, 2008; Himmelweit et al., 2013). Like many models in sociology and social psychology, these economic models allow the family to be a place of both conflict and cooperation (Sen, 1990; Nyman & Dema, 2007; Bennett, De Henau, Himmelweit, & Sung, 2012; and see a review by Bennett, 2013, this issue). Empirically it is usually the effects of factors on relative shares of expenditure that have been estimated; these have been found to increase with an individual's wage rate, their receipt of income transfers and their share of other non-labor income as well as external factors such as the likely division of household wealth after divorce (Himmelweit et al., 2013). A few economic models also account for how gender specifically influences either the bargaining process, as in the

“separate spheres” Lundberg and Pollak’s bargaining model (1993, 1996), or partners’ fall-back positions, as in Folbre’s account of “gender specific environmental parameters” (1997), an example of which might be laws governing the payment of child support by non-resident parents.

Most such models have focused on the determinants and outcomes of intrahousehold power, often noting that these could be unequally distributed by gender, rather than investigating how the processes by which intrahousehold power is exercised are themselves gendered. The sociological ‘resource theory of power’ was later refined to specify how gender ideologies shaped power too, distorting the influence of individual contributions, so that women’s contributions were often valued less than men’s by both partners (Ferree, 1990; Vogler, 1998). Feminist economists have also argued that objective factors alone fail to explain the persistence of gender inequalities, despite rising female employment and wage rates (Agarwal, 1997). Theoretical contributions have highlighted how gender influences partners’ perceptions of their own interests and their own and their partners’ contributions to household resources, with perceived rather than actual contributions determining intra-household power and entitlement to household resources (Katz, 1997; Sen 1990)

Studies using in-depth interviews showed that men and women perceived their contributions differently, with women more aware of the tensions between supposedly joint and individual interests (Bennett et al., 2012; Goode, Callender, & Lister, 1998; Nyman & Dema, 2007; Vogler & Pahl, 1994). These different perceptions matter not only to allocative power but also to how households internalise and reproduce gender inequalities found in society. Male breadwinner ideology and gender norms naturalise the man’s power through hidden unconscious processes to reduce the effect of the woman’s financial contribution on her claim

over household resources (Komter, 1989; Tichenor, 1999; Zelizer, 1994; see also Bennett, 2013, for a review). The hegemony of male breadwinner ideology could also be produced by the deliberate actions of the partners, engaged in 'doing gender' (West and Zimmerman, 1987; Ferree, 2010), even in couples where the woman had higher status and/or was the main provider (Tichenor, 1999).

Using subjective assessments

Unlike expenditure data collected at the household level, one advantage of using individual answers, such as those about satisfaction with household income, is that they can unquestionably be assigned to each partner. Only a few studies have used subjective financial data directly to analyse intrahousehold allocations. Kalugina et al. (2009), using Russian data for 1994-1998, estimated spouses' relative shares by the difference in how they situated themselves on a societal 'poor-rich' ladder, which they found to be strongly influenced by the spousal wage difference. Bonke and Browning (2009), using cross-sectional Danish data, interpreted answers to a question on satisfaction with "your present financial situation" as indicating respondents' "level of material well-being generally, and their consumption of goods in particular" (p 33). Differences in a couple's financial satisfaction scores were found to depend, among other factors, on their relative employment statuses and, non-linearly, on income shares. They concluded that who brings in the income matters for the intra-household distribution of material welfare. Alessie et al. (2006), using answers to the same question as indicating levels of "economic well-being or utility from the consumption of goods and services", found the female share of income to be a significant influence on female consumption shares in the majority of EU countries, though with considerable variation in the size of its effect.

Since the pioneering works of Easterlin (1974), Diener (1984), and Veenhoven (1984), many methodological advances have been made in the measurement of satisfaction in various domains, including income, one's partner or life in general (Diener et al. 1999; Larsen & Eid, 2008; van Praag & Ferrer-i-Carbonell, 2008; Veenhoven, 2008). Answers to satisfaction questions have been used in innovative ways to capture non-pecuniary valuation of phenomena such as the cost of domestic violence (Anand & Santos, 2010), the trade-off that individuals were willing to accept between unemployment and inflation (Clark & Oswald, 1994), the value of people's time (Bonke, Deding, & Lausten, 2009), the distress caused by unemployment (Clark, Diener, Georgellis, & Lucas, 2008), the autonomy women gained on divorce (Andress & Brockel, 2007), and to refine equivalence scales (Schwarze, 2003; Alessie et al., 2006).

A few studies that looked at gender differences in satisfaction with life or income found women to be more generally satisfied than men, although differences usually disappeared after controlling for other demographic variables (Diener et al., 1999). Stevenson & Wolfers (2009) found women's happiness to have decreased relative to men's over the last thirty years in most western countries, despite objective improvements in their situation, including their intrahousehold bargaining position, but arrived at no clear explanation for this. Gender differences have also been analysed in satisfaction with marriage (Ross, 1991) and in satisfaction with life after divorce (Andress & Brockel, 2007).

Satisfaction measures have been shown by numerous psychological studies using experimental and clinical testing to provide a consistent account of individuals' cognitive assessment of their situation with respect to "valued goals" across different periods, beyond just reflecting aspects of mood (Diener et al., 1999; Krueger & Schkade, 2008; Larsen & Eid,

2008). However, interpersonal differences in satisfaction scores in similar circumstances were found to be heavily influenced by unchanging personality traits that determine an individual's baseline satisfaction level (Argyle 1999; Diener & Lucas, 1999). Such traits are unobserved in most social surveys, making trying to explain cross-sectional differences in levels of satisfaction problematic. With panel data the influence of changes in individuals' circumstances on their satisfaction levels can instead reliably be analysed (Heady and Wearing, 1991; Saris, 2001; Ferrer-i-Carbonell & Frijters, 2004).

Personality traits have also been found to influence coping strategies by individuals and therefore the degree of adaptation to adverse circumstances (Carver & Connor Smith, 2010). Gender can be relevant here, since women who persistently find themselves in less advantageous situations within their families have traditionally resigned themselves to their more miserable fate (Sen, 1990). Nevertheless, adaptation has been found to occur slowly and imperfectly, so that it may well be possible to ignore adaptation when trying to identify relatively immediate impacts on an individual's satisfaction of a change in their situation (Andress & Brockell, 2007; Burchardt, 2005; Clark et al., 2008).

Another challenge in interpreting satisfaction data is that individuals may use endogenously determined standards of social comparison when making judgments about their situation. Processes by which such social comparison takes place have been found to be complex, sometimes contradictory, and identifying the relevant comparator in the data controversial (Diener et al., 1999; Crawford Solberg, Diener, Wirtz, Lucas, & Oishi, 2002; Senik, 2004; Stutzer, 2004). If in the short term we can assume the situation of any comparators is unchanged (in the absence of external economic shocks), we need not allow for social comparison contaminating the effect of changes in an individual's situation on their

satisfaction. And if comparators are subject to similar changes, effects will at worst be underestimated. Crawford Solberg et al. (2002) showed that other people's circumstances and a person's own past conditions indirectly influenced income satisfaction levels through influencing desires, but that objective progress in meeting those desires was the most important explanatory factor, suggesting that an individual's situation remained a reasonable predictor of their satisfaction with it. For couples, we are, in any case, mainly interested in the difference in their satisfaction levels, where it is only any differential effect on their comparators that would not be cancelled out.

Subjective measures in different domains – household income, health, social life etc. – have been found to be correlated, because of spill-over effects between domains (Bonke et al., 2009). Controlling for overall satisfaction with life, a variable usually available in such surveys, isolates the effects of factors to those on the domain of interest *per se*. With such controls, we could reasonably interpret changes in an individual's SWHI, both across time and relative to that of a partner sharing the same household income, to indicate changes specifically in what that income is perceived to do for that individual, in particular in helping them achieve goals that they value (see also Saris, 2001). If we also have panel data and analyse just changes in individuals' answers, we get beyond differences in personalities and coping strategies. This allows a couple's matched answers to questions about satisfaction with household income to be a tool for analysing their individually perceived benefit from household resources, that is, how they each individually assess the extent to which these resources enable them to pursue their valued goals.

METHOD

Data

We use the British Household Panel Survey (BHPS), conducted and managed by the Institute of Social and Economic Research at the University of Essex, and subsumed since 2010/1 in the larger United Kingdom Household Longitudinal Study. The BHPS's first wave in 1991 collected data from 10,300 individuals belonging to 5,500 households drawn from 250 areas of Great Britain. All of these individuals who could be traced were interviewed annually subsequently, along with all other members of their current households. We use data from 1996 to 2007, when all adults were asked the question: "How satisfied are you with your household income?", with answers to this question recorded on a scale from 1 "not satisfied at all" to 7 "completely satisfied". We restrict our sample to households consisting of a couple of working age with or without children, where the children, if any, have no significant income, and follow these couples so long as they stay together, giving 13,993 couple observations over the period (from 2,396 distinct couples). Our sample therefore has more observations from couples who stay together and is therefore more representative of longer-standing couples.

Estimation strategy

We model each partner's satisfaction with household income as a linear function of a set of independent variables.

For men:

$$S_{jt}^m = \beta_{1m} \mathbf{M}_{jt} + \beta_{1f} \mathbf{F}_{jt} + \gamma_1 \mathbf{C}_{jt} + \mu_{1j} + \varepsilon_{1jt} \quad (1)$$

and for women:

$$S_{jt}^f = \beta_{2m} \mathbf{M}_{jt} + \beta_{2f} \mathbf{F}_{jt} + \gamma_2 \mathbf{C}_{jt} + \mu_{2j} + \varepsilon_{2jt} \quad (2)$$

where S_{jt}^m and S_{jt}^f record the satisfaction with household income of the man and woman, respectively, in household j in period t .

\mathbf{M}_{jt} and \mathbf{F}_{jt} record the employment status of, respectively, the man and the woman in the j^{th} household. The reference category is full-time employment, with dummy variables for part-time employment, economic inactivity, unemployment and long-term disability. We distinguish the last three categories because they indicate the non-financial contributions that individuals are likely to be making (and/or their opportunity to make future financial contributions). In particular, women who are economically inactive, a status often chosen because of family responsibilities, on average make greater domestic contributions than those who are not employed through unemployment or disability; in our sample, economically inactive women, who are much more likely to have children under 5 years and therefore do more childcare too, on average did 24 hours of routine housework per week (excluding childcare), compared with 16 by unemployed and 19 by long-term disabled women (and 18 hours and 11 hours by women employed full-time and part-time, respectively). Non-employed status is also unequally distributed by gender; women are more likely to be out of the labor market because of domestic and caring duties, and when not in employment spend on average double the time on routine housework that men do. Further, like women who are economically inactive, most of those choosing to work part time tend to be making domestic contributions (O'Reilly and Fagan, 1998). This matters, both because of the predominance of women among part-time workers and the segregated nature of the labor market (with lower pay and more precarious employment associated with part-time jobs), and because part-time employment, like unemployment and economic inactivity, can have a scarring effect on long-

term employment prospects (O'Reilly and Fagan, 1998, Manning and Petrongolo, 2008; see also review by Bianchi and Milkie, 2010).

C_{jt} includes a limited number of controls that might have an independent effect on SWHI while being correlated with employment status. The most obvious of these in our main specification is monthly real household income, equivalised to allow for costs entailed by the presence of children, and in logarithmic form to allow for the decreasing influence of income on satisfaction found in many studies (e.g. Bonke & Browning 2009, Ferrer-i-Carbonell & Frijters, 2004). We also control for the number and ages of children to allow for their simultaneous effect on parents' employment status and their consumption and childcare costs on SWHI (beyond those allowed for by equivalising household income). We include dummy variables for each year after 1996 to control for any macro-economic effects, such as unemployment rates, or policy reforms, that may simultaneously affect employment outcomes and satisfaction with household income. We also control for both partners' reported overall satisfaction with life (measured on the same scale as SWHI). By including each individual's own overall satisfaction with life we ensure that our dependent variable is picking up effects that are specifically to do with household income, not spill-over effects from other domains of satisfaction. And we include their partner's overall satisfaction with life to control for how concern for the other's well-being might temper each partner's assessment of what their household income does for themselves.

We estimate these equations using fixed-effects regression, where μ_{1j} and μ_{2j} are the fixed effects, stemming from time-invariant characteristics of the man and the woman in household j , while ε_{1jt} and ε_{2jt} are randomly distributed error terms (with mean zero). μ_{1j} and μ_{2j}

include all time-invariant individual or household characteristics, observed and unobserved. Using a method of analysis that abstracts from the latter is important since, as discussed above, unobserved personality traits are significant influences on satisfaction measures that may also affect employment status.

Not accounting for such fixed effects would therefore bias our estimation of the coefficients of employment statuses (Ferrer-i-Carbonell & Frijters, 2004). By considering only effects of changes in an individual's employment status, fixed-effects estimation avoids this bias. But in not using cross sectional variation, it cannot explain all the dependent variable's variance, and usually results in a smaller R^2 , since the model only captures the effect of changes for individuals over time, rather than of differences between individuals (Greene, 2011).

By using linear fixed effects regression we do not make any comparison between levels of satisfaction across individuals within a couple, or across different couples. But, by modeling how factors influence changes in those levels linearly, our method does assume that changes can be interpersonally compared. Research comparing different methods of estimation using satisfaction data shows that linear fixed-effects regression produce results that are close to those using a version of ordinal fixed-effects regression, and considerably closer than estimation methods that take account of the ordinal nature of the dependent variable but not fixed effects (Ferrer-i-Carbonell & Frijters, 2004; see also Kristoffersen, 2010 for a review).

The Statistical software STATA/SE (version 11) was used to process the data and carry out our main estimations. Taking account of the panel design, we use the Huber/White/sandwich "robust" estimator (clustered on households) to calculate standard errors.

Investigating our research questions

Estimates for the coefficients in equations (1) and (2) should enable us to see whether the gender effects specified in our first two research questions can be identified. If we find that own or partner's less than full-time employment reduces either or both partners' SWHI, this can be interpreted as the contributions of those who are less than full-time employed being perceived as less likely to improve or sustain the household's income (and thus both partners' satisfaction with it) than the contributions of those in full-time employment. If we also find that women in our sample are less likely to be working full time than men, this is an immediate gender inequality.

The second question – whether men's and women's contributions of the same type have different effects on the SWHI of either or both partners – can be investigated by examining any difference between the coefficients of the man's employment status and the woman's. Such a difference could be observed if men's and women's employment contributes different amounts to household income, because of a gender earnings gap, and/or (for couples with children) it could be an effect of childcare costs being seen as costs relating to the woman's employment. This is an aspect of male breadwinner hegemony, which might also affect how secure income earned by the woman rather than the man is perceived to be. Any effect for the first reason should disappear once we control for household income and for the second once we control for the presence of children; we therefore run our regressions both with and without these controls to help distinguish between these reasons.

All models control for overall satisfaction, which we would expect also to be subject to male breadwinner hegemony and thus affected by deviations from customary gender roles (Sen, 1990). This means that any remaining effects on our dependent variable apply to satisfaction

with household income *per se*; so, for example, any particularly negative effect we find for unemployment on SWHI is over and above its well-known negative effect on satisfaction with life in general (Clark and Oswald, 1994). This means that the effects of male breadwinner hegemony will be visible only where deviations from traditional gender roles have an effect on satisfaction with household income, not just because they are upsetting or less satisfying in general. There might be effects on SWHI due to male breadwinner hegemony, if, for example, women's earnings are perceived as only temporary and therefore provide a less secure guide than men's to future household income.

The third research question is whether making the type of contribution that leads to greater SWHI in general has a greater positive effect on the SWHI of the person making that contribution than on their partner's. To investigate this, we need to look at the effect of either partner's employment status on the difference in the man's and the woman's SWHI, that is, whether the estimated coefficients for a given status are significantly different from each other in equations (1) and (2). In the linear case, this is equivalent to estimating a third regression whose dependent variable is the difference between the man's and the woman's SWHI. If, for either the man or the woman, having a less than full-time employment status causes a bigger reduction in their own than their partner's SWHI, we interpret this as a fall in the first partner's perceived benefit from their common household income relative to their partner's, associated with their reduced employment status. We measure this difference as the man's SWHI minus the woman's; so that in terms of benefit from household resources a positive change indicates the man's relative gain and a negative change the woman's.

Our fourth research question is whether these relative effects may themselves vary by gender. This can be examined by investigating whether the magnitude of any effect on the difference

in partners' SWHI is greater or less for a change in the man's employment status than for the same change in the woman's employment status. Finding such gender effects in the difference in satisfaction scores would be in line with the qualitative research findings discussed above about couples 'doing gender', whereby women may refuse to claim the potential benefits from any increase in their relative status (Tichenor, 1999), whereas the man may discount that status change so as not to feel threatened (Komter, 1989).

RESULTS

Table 1 gives a brief description of the variables used for our sample of working-age couples in the UK. As expected, men's rate of full-time employment is greater than women's, and women have higher rates of both part-time employment and labor market inactivity.

<<< Insert Table 1 about here >>>

Table 2 shows the estimated coefficients for men's and women's SWHI for the two models we have specified (with and without controls for household income and children).

<<< Insert Table 2 about here >>>

With a few exceptions, any employment status that is less than full time reduces both partners' SWHI. This suggests that contributions through employment rather than domestic activities are the more influential. Given the gendered distribution of employment statuses in Table 1, these results show that, in answer to our first research question, the type of contribution that men make to households more often than women has more influence on both men's and women's SWHI than the type of contributions made more often by women.

But the effect of being economically inactive is less negative than that of being unemployed (additional tests show this to be significantly so), suggesting that the domestic contributions, which in our sample are on average greater for economically inactive than unemployed partners, do have an influence on SWHI. Comparing Models (a) and (b) we can see that controlling for household income (and number and ages of children) reduces the magnitude, but does not wipe out the significant effects, of employment status, so that employment status in itself matters to SWHI, over and above its effects on current income (even net of childcare costs, or whether time out of employment is connected to the presence of children).

Table 2 also shows, in answer to our second research question, that by contrast, women's SWHI is roughly equally affected by their own and their partner's employment status, and even reduced more by the man's unemployment than their own. Table 3 shows tests for the significance of these differences in Models (a) and (b).

<<< Insert Table 3 about here >>>

These results confirm expectations that women's employment contributions have less influence than men's, at least on men's SWHI. And this is a gender effect because women's SWHI is not influenced significantly more by their own contributions than by their partners'. These differences remain to a large extent when controlling for household income and the presence of children, suggesting that this effect is not only because of the gender earnings gap or childcare costs, but arises, at least in part, directly from a male breadwinner ideology. As noted earlier, we control for overall satisfaction, so we know that this effect is on SWHI *per se* - and therefore likely to mean that the woman's employment status is perceived, for

ideological and/or practical reasons, as providing a less secure guide to household income and its benefits in the future than the man's.

But does making a more influential contribution yield relatively greater benefit to the person making that contribution than to their partner? This was our third research question. If so, we would expect the effect of a change in either partner's employment status to be greater in magnitude on their own SWHI than on their partner's. Results from Table 4 confirm the hypothesis that an individual's employment status has a larger effect on their own SWHI than on their partner's, and that for all but the least populated categories, economically inactive and long-term disabled men, these effects are significant. In particular, giving up full-time employment reduces either partner's SWHI, relative to the other partner's. For the man's employment status, all these effects are remarkably similar whether or not the presence of children (and household income) is controlled for. But for the woman's employment status, including controls for children reduces the negative effect of her inactivity or part-time status on her relative SWHI. Further, that the number of children aged under 5 reduces the woman's SWHI significantly more than the man's suggests that the costs of children may affect her perceived net contribution more than his, reducing her relative benefits from household income. This is in line with previous findings that childcare costs bear on women's earnings and employment, but not men's (OECD, 2007).

<<< Insert Table 4 about here >>>

Finally, we can observe whether the effects of employment status on relative SWHI may themselves vary by gender, our fourth research question. This question can be answered using the difference columns of Table 4 by comparing the magnitude of the effect of the

man's and the woman's labor market status on the difference in the partners' SWHI. Table 4 suggests mixed results and tests show that none of the differences in these magnitudes is significant, giving inconclusive results for our fourth research question.

Alternative estimations

In order to check the robustness of our results, and whether different types of employment-related contributions make a difference to the general picture, a few other specifications have been run, variants of Model (a) that includes all controls.

<<< Insert Table 5 about here >>>

In Table 5, Model (a1) considers a simple distinction between full-time and any other employment status. This simpler specification confirms results from Model (a) that full-time employment improves SWHI, and further that SWHI is increased for both partners more by the man working full time than the woman doing so, even controlling for household income. In addition, full-time employment improves relative SWHI and this effect is not significantly asymmetric by gender.

Model (a2) distinguishes just between those in or out of employment. Results are similar. With this specification, though, the impact is even more gendered, in that the effect of the woman's employment is now considerably smaller than the man's on both partners' SWHI. In this specification, there is an even stronger effect of employment on relative SWHI.

If we combine the partners' employment statuses to give a breadwinner typology of households, we find a similar picture. Model (a3) presents a typology based on whether each

partner works full time or not, with a further distinction for women between working part time and not being employed at all. The reference category is the “traditional” household in which the man is employed (full time) and the woman is not employed at all.

Both partners’ SWHI is reduced if the man leaves a full-time job in the traditional, male sole earner, household. By contrast, a complete reversal in status (from male sole full-time earner to female sole full-time earner) is a source of reduced SWHI for men but not for women, whose SWHI is not affected by who the sole earner is. That said, as long as their partner remains in full-time employment, women’s SWHI increases if they get a job, and even more so if it is full time. The man’s SWHI hardly changes as long as he remains in full-time employment, whatever happens to his partner’s employment status. The woman’s SWHI is highest when the household has two full-time earners. Either partner gains most in terms of relative SWHI when they are the sole (full-time) earner, further confirming our results above about the effects of employment status on relative SWHI and perceived benefits from household income

DISCUSSION

Results found in this study broadly confirm previous findings of the ways in which gender figures in intrahousehold allocation processes. We have shown that the type of contribution matters to satisfaction with household income, that who makes the contribution matters too and that partners’ relative contributions influence the difference in their perceived benefits from household income.

All these findings have gender implications. Full-time employment, in which men predominate, has a more positive effect than any other employment status on both partners’

SWHI, over and beyond the income it brings in. Second, for men their own employment status matters more to their SWHI than their partner's, but the same is not true for women. It seems possible that this gender asymmetry could play an important role in reproducing inequalities in gender roles, so that men's full-time employment continues to be the priority within households, although this was not the focus of this study. We do know from this study that this gender asymmetry is one way in which gender inequalities are reproduced within households, since we have seen that either partner's relative SWHI, indicating relatively greater benefit from household income, is increased by their full-time employment.

We did not find, however, any significant gender difference in how contributions affect relative benefits from household resources. We did not find that where women took on a 'better' employment status they benefitted significantly less than men did from doing so. Couples were not "doing gender", as Tichenor (1999) found in her study, where a woman did not gain the benefits of being the higher earner because both she and her partner downplayed the significance of her contribution. Rather, male breadwinner hegemony appeared in the asymmetry by which men's and women's contributions to household income affected both partners' satisfaction with that income, perhaps a more recent version of the old-fashioned idea of women's contributions being "pin money".

Investigating partners' satisfaction with household income has allowed us to develop a new quantitative method for analyzing changes in intrahousehold gender differences. Our method uses individual data available in large panel data sets, rather than expenditure data, usually collected only at household level. It therefore has demanding data requirements but does not need to make the questionable identification assumptions required when using expenditure data to allocate specific parts of household spending to individuals. It also does not restrict

the benefits of household income to the consumption of goods or opportunities for leisure. It can therefore be used to investigate intra-household aspects of whatever household income enables people to do, that is, whatever gives household members satisfaction with their household income.

This article focused on employment status and used this as a rough indicator of different forms of contributions but, with more detailed data, a similar method could be used to assess the impact of more specific time use and activities, such as caring activities as contributions to household resources, as well as other sources of gender inequalities, including wage rates, education, savings and investment. It could also be used to investigate intrahousehold differences with respect to other domains of satisfaction, such as satisfaction with leisure; and to see whether the factors that influence the opportunities to benefit from and make use of household income vary for different types of couples, for example by birth cohort or level of education achieved. It could be used comparatively to investigate differences between countries and relate them to what is known about gender roles attitudes, welfare regimes, and other institutional differences; and in addition, where long enough series of household panel data are available, to see whether there has been change over time in this important way in which gender inequalities invade and inhabit households.

REFERENCES

- Agarwal, B. (1997). "Bargaining" and gender relations: Within and beyond the household. *Feminist Economics*, 3 (1), 1–51.
- Alessie, R., Crossley, T. & Hildebrand, V. (2006). *Estimating a collective household model with survey data on financial satisfaction*, IFS working paper 06/19, London: Institute for Fiscal Studies.
- Anand, P. & Santos, C. (2009). Violent crime, gender inequalities and well-being: models based on capabilities and crime data for England and Wales. In: B. Harris, L. Gálvez, & H. Machado (Eds.) *Gender and well-being in Europe: Historical and contemporary perspectives* (pp. 157–184). Farnham: Ashgate.
- Andress, H-J & Bröckel, M. (2007). Income and life satisfaction after marital disruption in Germany. *Journal of Marriage and Family*, 69, 500–512.
- Argyle, M. (1999). Causes and correlates of happiness. In D. Kahneman, D. Diener & N. Schwarz, N. (Eds.), *Foundations of hedonic psychology: Scientific perspectives on enjoyment and suffering* (pp. 353–373). New York: Russell Sage
- Bennett, F. (2013). Researching within-household distribution: recent developments and conceptual challenges. *Journal of Marriage and Family, special issue*
- Bennett, F., De Henau, J., Himmelweit, S. & Sung, S. (2012). Financial autonomy and togetherness within couples. In J. Scott, S. Dex & A. C. Plagnol (Eds.), *Gendered lives: Gender inequalities in production and reproduction* (pp. 97–120). New York: Edward Elgar
- Bennett, F., De Henau, J. & Sung, S. (2010). Within household inequalities across classes? Management and control of money. In J. Scott, R. Crompton & C. Lyonette (Eds.), *Gender inequalities in the 21st century: New barriers and continuing constraints* (pp. 215–240). Cheltenham: Edward Elgar.

- Bianchi, S. and Milkie, M. (2010). Work and Family Research in the First Decade of the 21st Century. *Journal of Marriage and Family*, 72, 705–725
- Blood, R., & Wolfe, D. (1960). *Husbands and wives: The dynamics of married living*. New York: Free Press.
- Bonke, J. & Browning, M. (2009). The distribution of financial well-being and income within the household. *Review of Economics of the Household*, 7, 31–42.
- Bonke, J., Deding, M., & Lausten, M. (2009). Time and money: A simultaneous analysis of men's and women's domain satisfactions. *Journal of Happiness Studies*, 10, 113–131. DOI 10.1007/s10902-007-9064-3
- Burchardt, T. (2005). Are one man's rags another man's riches? Identifying adaptive expectations using panel data. *Social Indicators Research*, 74, 57–102.
- Carver, C.S. and Connor-Smith, J. (2010). Personality and coping. *Annual Review of Psychology*, 61, 679–704.
- Clark, A. E., Diener, E., Georgellis, Y. & Lucas, R. E. (2008). Lags and leads in life satisfaction: A test of the baseline hypothesis. *Economic Journal*, 118, 222–43.
- Clark, A.E. and Oswald, A.J. (1994). Unhappiness and unemployment. *Economic Journal*, 104, 648–59.
- Crawford Solberg, E., Diener, E., Wirtz, D., Lucas R. & Oishi, S. (2002). Wanting, having, and satisfaction: Examining the role of desire discrepancies in satisfaction with income. *Journal of Personality and Social Psychology*, 83, 725–734 DOI: 10.1037//0022-3514.83.3.725
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95, 542–575.
- Diener, D. & Lucas, R. E. (1999). Personality and subjective well-being. In D. Kahneman, D. Diener & N. Schwarz, N. (Eds.), *Foundations of Hedonic Psychology: Scientific Perspectives on Enjoyment and Suffering* (pp. 213–229). New York: Russell Sage.

- Diener, D., Suh, E., Lucas, R. E. & Smith, H. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276–302.
- Donni, O. (2008). Collective models of the household. In S. N. Durlauf and L. E. Blume (Eds.), *The New Palgrave Dictionary of Economics*, 2nd edn, London: Palgrave Macmillan, retrieved from <http://www.dictionaryofeconomics.com>
- Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. A. David & M.W. Reder (Eds.), *Nations and households in economic growth* (pp. 98–125). New York: Academic Press.
- Ferree, M. M. (1990). Beyond separate spheres: feminism and family research. *Journal of Marriage and the Family*, *52*, 866–884.
- Ferree, M. M. (2010). Filling the glass: gender perspectives on families. *Journal of Marriage and Family*, *72*, 420–439.
- Ferrer-i-Carbonell, A. & Frijters, P. (2004). How important is methodology for the estimates of the determinants of happiness? *Economic Journal*, *114*, 641–659.
- Folbre, N. (1997). Gender coalitions: extra family influences on intrafamily inequality, in Alderman, H., Haddad, L. and Hoddinot, J. (eds) *Intrahousehold Allocation in Developing Countries*, Baltimore; MD: Johns Hopkins University Press, 263–274
- Goode, J., Callender, C., & Lister, R. (1998). *Purse or wallet? Gender inequalities and income distribution within families on benefits*. London: Policy Studies Institute.
- Greene, W. H. (2011). *Econometric analysis (7th Edition)*. Englewood Cliffs: Prentice Hall
- Heady, B. And A. Wearing (1991). Subjective Well-being: a stock and flows framework, in F. Strack and M. Argyle and N, Schwatz (Eds.), *Subjective Well-being* (pp. 49–77). Oxford: Pergamon Press

- Himmelweit, S, Santos, C., Sevilla, A. & Sofer, C. (2013). Sharing of resources within the family and the economics of household decision-making. *Journal of Marriage and Family, special issue*
- Kalugina, E., Radtchenko, N. & Sofer, C. (2009). How do spouses share their full income? Identification of the sharing rule using self-reported income. *Review of Income and Wealth, 55*, 360–391
- Katz, E. (1997). The intrahousehold economics of voice and exit. *Feminist Economics, 3*, 25–46.
- Komter, A. (1989). Hidden power in marriage. *Gender and Society, 3*, 187–216
- Kristoffersen, I. (2010). The metrics of subjective wellbeing: Cardinality, neutrality and additivity. *Economic Record, 86*, 98–123. doi: 10.1111/j.1475-4932.2009.00598.x
- Krueger, A. B. & Schkade, D. A. (2008). The reliability of subjective well-being measures. *Journal of Public Economics, 92*, 1833–1845.
- Larsen, R. & Eid, M. (2008). Ed Diener and the science of subjective well-being. In M. Eid and R. Larsen (Eds.) *The science of subjective well-being* (pp. 1–13). New York: Guildford Press
- Lundberg, S. J., & Pollak, R. A. (1993). Separate spheres bargaining and the marriage market. *Journal of Political Economy, 10*, 987–1010.
- Lundberg, S. J., & Pollak, R.A. (1996). Bargaining and distribution in marriage. *Journal of Economic Perspectives, 10*, 139–158.
- Manning, A. & Petrongolo, B. (2008). The part-time pay penalty for women in Britain. *Economic Journal, 118*, F28–F51
- Mies, M. (1982). *The lace makers of Narsapur: Indian housewives produce for the world market*. London; Zed Press.

- Noonan, M. (2001). The impact of domestic work on men's and women's wages, *Journal of Marriage and Family*, 63, 1134–45.
- Nyman, C., & Dema, S. (2007). An overview: Research on couples and money. In J. Stocks, C. Diaz & B. Hallerod (Eds.), *Modern couples sharing money, sharing life* (pp. 7–29). Basingstoke: Palgrave Macmillan.
- OECD (2007). Benefits and wages: OECD indicators, OECD, retrieved from <http://www.oecd.org>
- O'Reilly, J and Fagan, C. (1998). *Part-time prospects. An international comparison of part-time work in Europe, North America and the Pacific Rim*, New York: Routledge
- Ross, C. E. (1991). Marriage and the sense of control. *Journal of Marriage and the Family*, 53, 831–838.
- Saris, W. E. (2001). The relationship between income and satisfaction: The effect of measurement error and suppressor variables. *Social Indicators Research*, 53, 117–136, DOI: 10.1023/A:1026785328244
- Schwarze, J. (2003). Using panel data on income satisfaction to estimate equivalence scale elasticity. *Review of Income and Wealth*, 49, 359–372
- Sen, A. (1990). Gender and cooperative conflicts. In I. Tinker (Ed.), *Persistent inequalities: Women and world development* (pp 123–149). New York and Oxford: Oxford University Press.
- Senik, C. (2004). When information dominates comparison. Learning from Russian subjective panel data. *Journal of Public Economics*, 88, 2099–2123.
- Stevenson, B. and Wolfers, J. (2009). *The paradox of declining women's happiness*. NBER working paper 14969. National Bureau of Economic Research
- Stutzer, A. (2004). The role of income aspirations in individual happiness. *Journal of Economic Behavior and Organization*, 54 (1), 89–109.

- Tichenor, V. T. (1999). Status and income as gendered resources: The case of marital power. *Journal of Marriage and the Family*, 61, 638–650
- Van Praag, B. & Ferrer-i-Carbonell, A., (2008). *Happiness quantified: A satisfaction calculus approach*. Oxford: Oxford University Press.
- Veenhoven, R. (1984). *Conditions of happiness*. Dordrecht, The Netherlands: D. Reidel
- Veenhoven, R. (2008). Sociological theories of subjective well-being. In M. Eid and R. Larsen (eds). *The science of subjective well-being: A tribute to Ed Diener* (pp. 44–61). New York: Guildford Press .
- Vogler, C. (1998). Money in the household: Some underlying issues of power. *Sociological Review*, 46, 687–713.
- Vogler, C., & Pahl, J. (1994). Money, power and inequality within marriage. *Sociological Review*, 42, 263–288.
- West, C., & Zimmerman, D. H. (1987). Doing gender. *Gender and Society*, 1, 125–151.
- Zelizer, V. A. (1994). *The social meaning of money: Pin money, paychecks, poor relief, and other currencies*. New York: Basic Books.

Table 1. Descriptive statistics of the variables used in our main estimations

Man's employment status		
Full-time	89.4%	
Part-time	3.1%	
Econ. Inactive	1.7%	
Unemployed	2.9%	
Long-term disabled	2.9%	
Woman's employment status		
Full-time	47.6%	
Part-time	30.0%	
Econ. Inactive	18.5%	
Unemployed	1.7%	
Long-term disabled	2.3%	
No dep. child in hh	40.6%	
Youngest child 0-4y	25.8%	
Youngest child 5-12y	24.7%	
Youngest child 13-18y	8.9%	
	Value	Std dev.
Equiv. monthly household income		
(£)	2,734	1,680
Man's SWHI score	6.0	2.3
Woman's SWHI score	6.1	2.4
Man's overall life satisfaction	7.1	1.8
Woman's overall life satisfaction	7.2	1.9
<i>N</i> (couples)	13,993	

Note: All satisfaction scores have been rescaled into a 0-10 interval.

Table 2 Regression results for man's and woman's SWHI

	Man's SWHI		Woman's SWHI	
	(a)	(b)	(a)	(b)
Man's employment status				
Part-time	-0.503*** (0.114)	-0.596*** (0.118)	-0.212* (0.113)	-0.310*** (0.117)
Econ. Inactive	-0.520*** (0.174)	-0.779*** (0.170)	-0.238 (0.154)	-0.498*** (0.151)
Unemployed	-1.573*** (0.173)	-1.964*** (0.169)	-1.142*** (0.172)	-1.546*** (0.166)
Long-term disabled	-1.030*** (0.283)	-1.243*** (0.281)	-0.524 (0.328)	-0.744** (0.326)
Woman's employment status				
Part-time	-0.105* (0.056)	-0.205*** (0.055)	-0.269*** (0.059)	-0.420*** (0.059)
Econ. Inactive	-0.013 (0.082)	-0.204*** (0.079)	-0.300*** (0.088)	-0.580*** (0.087)
Unemployed	-0.388*** (0.151)	-0.543*** (0.152)	-0.769*** (0.175)	-0.946*** (0.176)
Long-term disabled	0.135 (0.214)	-0.017 (0.213)	-0.652*** (0.243)	-0.850*** (0.243)
Log equiv. household income	0.504*** (0.064)		0.486*** (0.061)	
No. Children 0-4y	-0.015 (0.044)		-0.171*** (0.047)	
No. Children 5-12y	0.015 (0.040)		0.009 (0.042)	
No. Children 13y+	-0.068 (0.049)		-0.036 (0.048)	
Constant	-1.125** (0.523)	2.741*** (0.155)	-0.742 (0.497)	2.958*** (0.155)
<i>N</i> (observations)	13993	13993	13993	13993
<i>N</i> (groups households)	2396	2396	2396	2396
R^2 (within)	0.147	0.136	0.130	0.118
R^2 (between)	0.407	0.346	0.351	0.286
<i>F</i>	42.76	47.74	42.37	47.42

Notes: (1) * $p < .10$. ** $p < .05$. *** $p < .01$. Robust standard-errors in parentheses (clustered on individuals).

(2) Sample is male-female couples of working-age with or without dependent children (British Household Panel Survey, waves 1996-2007)

(3) All specifications include controls for own and partner's overall satisfaction with life and year dummies.

Table 3 Gender difference (man's minus woman's) in effects of employment status on each partners' SWHI

	Man's SWHI		Woman's SWHI	
	(a)	(b)	(a)	(b)
Part-time	-0.398***	-0.392***	0.057	0.111
	(0.131)	(0.134)	(0.130)	(0.133)
Econ. Inactive	-0.507***	-0.575***	0.062	0.082
	(0.192)	(0.189)	(0.178)	(0.177)
Unemployed	-1.185***	-1.420***	-0.373	-0.601**
	(0.230)	(0.235)	(0.243)	(0.243)
Long-term disabled	-1.165***	-1.226***	0.128	0.106
	(0.385)	(0.383)	(0.391)	(0.390)

Note: (1)* $p < .10$. ** $p < .05$. *** $p < .01$. Robust standard-errors in parentheses (clustered on individuals).

(2) Derived from Table 2. Entries give man's coefficient minus woman's.

Table 4 Regression results for difference between man's and woman's SWHI

	(a)	(b)
Man's employment status		
Part-time	-0.291** (0.122)	-0.287** (0.123)
Econ. Inactive	-0.282 (0.185)	-0.281 (0.182)
Unemployed	-0.432** (0.195)	-0.417** (0.192)
Long-term disabled	-0.506 (0.353)	-0.499 (0.352)
Woman's employment status		
Part-time	0.164** (0.065)	0.216*** (0.061)
Econ. Inactive	0.288*** (0.095)	0.376*** (0.088)
Unemployed	0.380* (0.199)	0.402** (0.197)
Long-term disabled	0.787*** (0.291)	0.833*** (0.290)
Log equiv. household income	0.017 (0.061)	
No. Children 0-4y	0.156*** (0.052)	
No. Children 5-12y	0.006 (0.048)	
No. Children 13y+	-0.033 (0.058)	
Constant	-0.382 (0.512)	-0.216 (0.179)
<i>N</i> (observations)	13993	13993
<i>N</i> (groups households)	2396	2396
<i>R</i> ² (within)	0.0550	0.0536
<i>R</i> ² (between)	0.247	0.240
<i>F</i>	18.97	21.79

Notes: (1) All specifications include controls for own and partner's overall satisfaction with life and year dummies;

(2)* $p < .10$. ** $p < .05$. *** $p < .01$. Robust standard-errors in parentheses (clustered on individuals).

(3) A positive sign indicates a larger increase (smaller decrease) in the man's SWHI than the woman's; a negative sign indicates a larger increase (smaller decrease) in the woman's SWHI than the man's.

Table 5 Alternative specifications for the effects of employment status

	Man's SWHI	Woman's SWHI	Diff (m-f) SWHI
Model a1 (ref: none employed FT)			
Man employed FT	0.846*** (0.100)	0.503*** (0.094)	0.342*** (0.102)
Woman employed FT	0.089 (0.055)	0.302*** (0.057)	-0.213*** (0.064)
Gender difference in effect of full-time employment:	0.757*** (0.115)	0.202* (0.111)	0.129 (0.121)
Model a2 (ref: none in employment)			
Man in employment	1.405*** (0.141)	0.953*** (0.144)	0.452*** (0.158)
Woman in employment	0.021 (0.068)	0.247*** (0.073)	-0.227*** (0.077)
Gender difference in effect of employment	1.384*** (0.155)	0.705*** (0.165)	0.226 (0.174)
Model a3 (ref: Man FT, Woman not working)			
Man not FT; Woman not working	-0.854*** (0.174)	-0.471*** (0.165)	-0.383** (0.185)
Man not FT; Woman PT	-0.991*** (0.164)	-0.635*** (0.168)	-0.356** (0.179)
Man not FT; Woman FT	-0.730*** (0.149)	0.018 (0.141)	-0.747*** (0.159)
Man FT; Woman PT	-0.052 (0.068)	0.122 (0.075)	-0.174** (0.083)
Both FT	0.038 (0.080)	0.368*** (0.086)	-0.329*** (0.094)

Notes: (1) All models are based on Model (a) in Table 2, controlling for log of equivalised monthly household real income, number and age of children, partners' individual overall satisfaction with life and year dummies.

(2) * $p < .10$. ** $p < .05$. *** $p < .01$; Robust standard-errors in parentheses (clustered on individuals).

(3) FT stands for full-time; PT for part-time.