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Does migration make you happy? A longitudinal study of internal migration and subjective well-being

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Abstract. The majority of quantitative studies on the consequences of internal migration focus almost exclusively on the labour market outcomes and the material well-being of migrants. We investigate whether individuals who migrate within the UK become happier after the move than they were before, and whether the effect is permanent or transient. Using life satisfaction responses from 12 waves of the British Household Panel Survey (BHPS) and employing a fixed-effects model, we derive a temporal pattern of migrants' subjective well-being (SWB) around the time of the migration event. Our findings make an original contribution by revealing that, on average, migration is preceded by a period when individuals experience a significant decline in happiness for a variety of reasons including changes in personal living arrangements. Migration itself causes a boost in happiness, and brings people back to their initial levels. The research contributes therefore to advancing an understanding of migration in relation to set point theory. Perhaps surprisingly, long-distance migrants are at least as happy as short-distance migrants despite the higher social and psychological costs involved. The findings of this paper add to the pressure to re-theorize migration within a conceptual framework that accounts for social well-being from a life course perspective.

Keywords: internal migration, subjective well-being, happiness, panel model, set-point theory

1. Introduction

The study of internal and international migration has traditionally been shaped by economic questions relating to the labour market. At a micro-level, a decision to migrate is mainly explained by cost-benefit calculations leading to an expected positive net return, usually measured by monetary income (van Ham, 2002). In other words, people are often assumed to maximize their utility expressed in pecuniary terms (Chiswick, 2008). The migration decision-making process at the family level is based on the evaluation of a joint return with potentially unequal gains or losses for spouses (Cooke, 2008). Much empirical evidence indicates that migration is beneficial for the careers of migrants, unless they are tied-movers (mostly women) who sacrifice their labour-market outcome for the sake of the net gain of the family as a whole.

Compared with the economic consequences of migration, much less is known about the implications of migration for the general subjective well-being (SWB) of individuals. Whether migration brings happiness to all migrants is an important question, especially in the context of the growing interest in using well-being measures to evaluate societal progress. As is common in the literature, we use the terms SWB and happiness interchangeably. They refer to people's evaluations of their life which can be cognitive or affective (e.g. Diener, 2009; Diener et al, 2003). From a theoretical perspective, incorporating SWB in an explanation of migration decision-making can still be encompassed within a utility-maximizing framework. Now, however, utility is captured by subjective judgments of satisfaction rather than monetary income.

A SWB framework for the analysis of migration has a number of advantages. It takes a wider perspective that incorporates the richness and diversity of current geographical mobility in terms of motivations and outcomes. Migration is a stressful event (Magdol, 2002; McCollum, 1990), and people migrate for a variety of reasons, not only economic ones, but most expect to increase their quality of life and happiness through changing their place of residence. Due to its complexity, migration affects many domains of the migrant life regardless of the motivations for a move, and these effects can be either positive or negative. A positive labour market outcome of migration does not have to coincide with a migrant's experience of the quality of life in a destination area, especially in the context of the illusory general belief that money brings happiness (Kahneman et al, 2006). We may expect negative effects of migration on SWB when a person moves involuntarily or when he or she miscalculates post-migration utility.

Evaluating migration in terms of happiness and not just money also has substantial policy implications (Diener and Seligman, 2004). Policies designed to stimulate the economy by encouraging geographical mobility, such as regional policies aimed at attracting new businesses, or policies drawing on Florida's (2002) idea of the benefits of attracting the creative class to cities, do not necessarily lead to increased individual and overall societal well-being. Countries like France (Stiglitz et al, 2009) and the UK (Prime Minister's Office, 25 November 2010; Stratton, 2010) have now recognized general well-being as a valuable complementary measure to evaluate social progress and to develop policy responses.

This study advances our understanding of the relationship between migration and SWB in several important ways. We investigate whether individuals who migrate within the UK become happier after the move than they were before it. For those who report higher levels of happiness after migration, it is important to determine whether it is a permanent or transient effect. We use panel data and observe levels of SWB both prior to and after migration events. To effectively follow the happiness level of the same individual over time we apply fixed-effects panel data models. Additionally, we are interested in whether or not the effects are different for various types of migration (migration motivated by different forces; short and long distances moves; male and female migrants; one-off movers versus

multiple migrants).

2. Background

Set-point theory of SWB has been a prevailing paradigm in psychology (Headey, 2010; Lucas et al, 2003). The central premise is that individuals have stable levels of SWB shaped by genetics and personality. Deviations from the set-points may occur in the face of major life events, such as marriage, migration, unemployment, or serious injury, but their effects are usually transitory. There is, however, increasing evidence of lasting changes in individual happiness levels. Unemployment can cause a long-term decrease in SWB (Clark et al, 2008a; Lucas et al, 2004) and marriage can have a long-lasting positive effect on SWB (Lucas et al, 2003). Easterlin (2006a) posits that life events in family and health domains have a lasting effect on SWB, whereas improved material circumstances do not raise happiness in the long run because of people's adaptation to the new level of living and adjustment of aspirations. Headey (2010) found large and permanent changes in SWB set-points for a large number of individuals participating in the German Socio-Economic Panel Survey (SOEP). He challenged set-point theory and called for a substantial revision. Considering the emerging findings, it appears that happiness is shaped by both psychological factors and life circumstances (Easterlin, 2006b). This implies that people can play an active role in increasing their own happiness by making considered choices within their life strategies.

Migration can be seen as a means of achieving lasting improvement in SWB. People migrate for various reasons but most expect to improve their lives in one way or another. They migrate to take advantage of opportunities available elsewhere. In terms of theoretical approach, human capital or cost-benefit models dominate the migration literature. People are assumed to behave rationally and to move when the expected value of the benefits exceeds the costs (pecuniary and non-pecuniary). When more than one individual is involved in migration decision making, as in the case of family migration, a rational evaluation of the costs and benefits of moving are often more complex. Migration may be rational from the standpoint of the family as a whole, but not from the standpoint of each family member considered separately. Family migration may therefore provide disproportionate and unequal benefits to male and female partners (Coulter and van Ham, 2012; Mulder and Cooke, 2009).

The economic gains that are conventionally taken in the literature as a measure of the success of migration represent only one aspect of well-being and might therefore be misleading. A key question is whether migration is effective in raising happiness, in both the short- and long-run. There are reasons to believe that this does not have to be the case. Migration is a move not only in physical, but also in social space. It is a multifaceted event involving shifts in many domains of life. Economically-driven migration may be at considerable cost to social relationships. Moreover, spatial mobility is closely and complexly interrelated with family and career events which may not be neutral for SWB, e.g. divorce or loss of a job. An individual's whole life satisfaction can be seen as an aggregate of satisfactions with the various domains of their life (Cummins, 1996; Schimmack, 2008; van Praag et al, 2003). However, the literature suggests that the weights assigned to various life domains may vary by individuals and also they may change over the individual's life span (McAdams et al, 2011; Pavot and Diener, in press). The studies adopting the life domain approach generally agree on domains that are central to determining happiness. They include economic conditions, family circumstances, health and work. All of these aspects of a person's life, and also their relative importance, may be affected by a change of place of residence. Raising happiness in non-economic domains is, however, more effective than in economic ones (Easterlin, 2006a). The transient effect of income on life satisfaction is very often not realized by people (Kahneman et al, 2006).

As mentioned above, most research into the consequences of internal migration refers to objective outcomes in the economic domain. Outcomes differ substantially between lead and tied migrants (van Ham and Büchel, 2006). Women migrants are much more likely to be tied migrants than men (Mincer, 1978), even when the woman actually is the primary wage earner (Cooke, 2003), or has a higher ranking occupation than her partner (Boyle et al, 1999a). An extensive literature demonstrates that following family migration women's labour market status suffers in a number of ways (Boyle et al, 1999b; 2001; Halfacree, 1995; Lichter, 1983; Mincer, 1978). After migration women are less likely to be employed, have smaller incomes and work shorter hours than other equivalent women (Boyle et al, 2001; Cooke and Bailey, 1999; Morrison and Lichter, 1988; Shihadeh, 1991). These may result, however, from a self-selection of women with lower chances to succeed in the labour market, which is difficult to resolve with cross-sectional data. Studies using longitudinal data found that married women 'recover' to pre-migration income levels within one to three years after the move (Clark and Huang, 2006; LeClere and McLaughlin, 1997). The labour market outcome of migration is usually positive for men.

Success in the economic domain does not imply, however, an increase in happiness, especially in the long term. The relation between income and happiness has attracted widespread attention (Clark et al, 2008b; Easterlin, 1995; 2001; Easterlin et al, 2010; Ferrer-i-Carbonell, 2005; Kahneman et al, 2006; Stutzer, 2004). The weak effect of absolute income on SWB may be explained in several ways. First, in evaluating their financial situation people compare themselves to others. As a result relative income rather than absolute income is seen to affect happiness. Second, people get used to material possessions and very often they underestimate the process of habituation. Similarly, people's expectations adapt to their financial possibilities. Finally, having a higher income often shifts time-use towards activities associated with higher tension and stress. As people become wealthier they tend to devote more time to work and commuting and less time to passive leisure activities (Kahneman et al, 2006).

The impact of other characteristics such as age, gender, marital status and education on happiness levels seems to be surprisingly limited and evidence is sometimes mixed (Diener, 2009; Diener and Seligman, 2004; Dolan et al, 2008; Layard et al, 2012). Here we highlight the influence of some selected migration-related characteristics. The literature suggests no significant difference between men and women when average levels of SWB are considered. Females are more likely, however, to report very high or very low levels of SWB. As regards age, many studies have found, usually adopting some kind of *ceteris paribus* approach, that SWB in adulthood can be characterized by a U-shaped curve with the lowest happiness occurring in middle age. In many European countries, a U-shape can be found without the inclusion of control variables. A very useful overview of the relationship between well-being and age is included in Blanchflower and Oswald (2008) and the discussion that followed (Blanchflower and Oswald, 2009; Glenn, 2009)

Happiness research emphasizes that individual evaluations of well-being go beyond economics. What is more important, the goal of raising happiness through acquiring extra material goods is almost certainly doomed in the long run. We expect, therefore, that assessment of long-term returns to migration in SWB terms will in most cases differ from calculations in monetary terms. An important question, which we aim to answer, is whether migration has a positive impact on individual long-term happiness. Since happiness is considered by many as the ultimate goal in life, voluntary migration should facilitate this goal. People may, however, exaggerate the contribution of single factors to overall SWB, especially income. The inevitable shift of attention to other aspects of daily life after migration will influence, therefore, the anticipated gains in happiness.

We expect different consequences of migration by gender for at least two reasons.

First, men and women tend to prioritize various domains of life that are affected by changing place of residence in different ways. Second, women are more likely to be trailing spouses. Being a tied-mover may, however, be less harmful in SWB terms than in economic terms, since trailing spouses might be less career-oriented. Finally, it is expected that SWB return to migration will depend on the type of movement under study (e.g. short- versus long-distance migration).

3. Data and methods

3.1. Migration and the British Household Panel Survey

Panel data are especially beneficial in evaluating the impact of migration as they allow a comparison of the situation before and after the migration event. For this study we use the British Household Panel Survey (BHPS), for the years 1996–2008 (2008 is the final year of the original panel). In 1996 questions on overall life satisfaction were introduced. The BHPS is a nationally representative sample of approximately 5,500 private households with approximately 10,000 adults recruited in 1991. The adult members (aged over 15) of the same sample of households are interviewed every year. Throughout its life time, the BHPS was enriched with additional (geographical) samples. Therefore, in 2008 the total sample size was around 9,000 households including some 15,000 individuals. The BHPS attempts to follow up all migrants who remain in Great Britain. Although, as expected, attrition among migrants is higher than among non-migrants, its extent is relatively small and does not pose a problem for the analysis of geographical mobility (Buck, 2000; Rabe and Taylor, 2010). This does not, however, preclude the possibility that sample attrition is selective with respect to certain variables.

The migration behaviour of the BHPS respondents can be tracked using two different indicators provided in the dataset. Panel members are directly asked whether they still live at the same residence as before 1 September of the previous year. In the case of a change of residence, information on month and year of the move is collected along with information on reasons for the reported move. We can explicitly identify tied and lead migrants by matching husbands' and wives' responses to the question whether migration was for reasons associated with their own job or employment. The BHPS also provides a derived individual mover status variable indicating whether sample members have moved location since last interview. Distance between previous and current postcode is given. We identify migration events combining the information contained in both migration variables. Migration is broadly defined as a change in the usual place of residence (address) between two consecutive interviews. This includes both local and long-distance moves. A migrant is a person who undertakes migration at least once during the complete observation period (1996-2008). Depending on the number of migrations he or she experiences we distinguish one-time migrants and multiple migrants. Our data indicate that, on average, about 11% of adults migrate every year (according to the 2001 Census, which uses a similar definition of migration, 11.4% of the UK population has moved during the pre-census year (Champion, 2005)). This adds up to a total of more than 21,000 migration events in the years 1996-2008. Around 39% of the migrating individuals change place of residence more than once over the observation period. Excluding multiple moves leaves us with 12,000 migrants. It is common in migration research to consider only the first move rather than all moves. However, the migration observed in the BHPS dataset is not necessarily the first move in a migrant's biography. It was concluded that a focus only on first moves would to some extent be artificial. Another frequently used approach is to consider individuals who migrate only once during the observation period. BHPS data exploration revealed that this produced an even

more biased sample. In our BHPS dataset one-time migrants were older than multiple ones, which suggests that they have been captured and observed at the end of their migration careers. Although our analysis is based on all observed moves, regardless of reason¹ or distance, some results for one-time migrants are presented for comparative purposes later in the paper to show the importance of data selection.

On average in the sample an individual moves a distance of 32 km. Nonetheless, half of all moves are less than 3.2 km. About 9% of all moves are motivated by reasons related to the respondent's job. The share of job-related migrations increases with the distance moved - 31% for distances exceeding 25 km as opposed to 3% below this threshold. The number of migrations experienced by heterosexual couples (both married and cohabiting) over the period 1996-2008 equals about 3,700. Approximately 11% of those couples migrate for reasons associated with the job of either or both partners. Half of the job-related moves of the couples are associated with only the man's job, while around 20% is associated with only the woman's job.

The SWB measure is derived by the evaluation question: 'How dissatisfied or satisfied are you with your life overall?' There are seven possible response options ranging from 'not satisfied at all' to 'completely satisfied'. A neutral point on the scale is 4 at which respondents report that they are neither satisfied nor dissatisfied. This single-item measure is used as a dependant variable in our study. Some may argue that the validity of this measure is moderate, but more valid measures of well-being have not been created yet (Schneider and Schimmack, 2009).

3.2. Modelling approach

Our objective is to examine how SWB changes relative to the time of migration. To account for individual differences and effectively track the same people over time we apply a fixed-effects model². In order to capture the time path of SWB we create a series of dummy duration variables. They represent the number of years before or after the occurrence of a migration event (the details of dealing with multiple migrants are presented below). The resulting regression equation takes the form:

$$SWB_{it} = \alpha_i + \beta \mathbf{X}_{it} + \sum_{k=-T_1}^{T_2} \theta_k M_{it}^k + \varepsilon_{it}, \quad (1)$$

where SWB_{it} denotes the subjective well-being of individual i in period t . The individual fixed effect, α_i , controls for any time-constant unobserved heterogeneity. \mathbf{X}_{it} is a vector of time-varying covariates. It includes a set of individual and household characteristics that are common in the literature on SWB. In particular, we consider age, marital status and labour market status at the individual level and birth of a child and number of children at the household level. ε_{it} is a stochastic error term, indexed i for the individual and t for time. The dummy variables, M_{it}^k , indicate if a person i migrates in period $t-k$, with k indexing the variables beginning T_1 years before and ending T_2 years after migration. The last group refers

¹ Since the substantive results of the analysis do not change after removal of students, whose migration is often temporary, they are included in the sample as well.

² We have also estimated the model in a random-effects framework and formally compared the models using the Hausman test. The results favour a fixed-effects specification.

to all years beyond T_2 . For instance, $M_{it}^3 = 1$ if an individual i migrated three years before year t . In other words, at year t he or she has been living in a new place of residence for three years. If $M_{it}^{-3} = 1$, it indicates that a person i will migrate from a current place of residence in three years. The parameters θ_k measure therefore the impact of migration prior to ($k < -1$) and following the move ($k \geq 0$).

Note that in the case of people who move several times within the observation period, years between two subsequent migrations are identified as both before and after a move. We assume that there is only one effect for each year, where the anticipation effect takes precedence over the adaptation effect back to year T_1 (changing this threshold for a shorter one has very limited impact on the substantive results). As a robustness test, we also ran the model assuming both lag and lead effects at the same time for years between migrations. In this test the general time pattern of SWB remained unchanged.

We adopted a similar modelling approach as was used for examining life satisfaction effects of major life events by Clark et al. (2008a) and Frijters et al. (2011). The latter authors include also a change of residence event in their analysis. In the economic literature analogous models are used to evaluate earnings losses of displaced workers (Couch, 2001; Couch et al, 2011; Couch and Placzek, 2010; Jacobson and LaLonde, 1993; White, 2010). Given the nature of our dependant variable (seven ordered outcomes) an ordered response regression might seem more appropriate. There are two main reasons in favour of a linear model. First, linear analysis is superior in its ease of interpretation. Second, the analysis of SWB using ordered response regression and linear models lead to similar substantive results (Clark et al, 2008a; Ferrer-i-Carbonell and Frijters, 2004).

4. Results

4.1. *Empirical regularities in SWB and migration*

Our data confirm that most people are reasonably happy (Diener and Diener, 1996). Around 76% of the BHPS respondents indicate SWB above neutral. The SWB metric records an average level of happiness of 5.23 (on a 7 point scale) and there is no significant difference between men and women. Migrants are, on average, significantly less happy than non-migrants. Migrants are defined as outlined in Section 3 of this paper and thus the aggregate measures for migrants are derived from all available observations prior to and after migration events. The average SWB scores for migrants and non-migrants are respectively 5.16 and 5.30. Multiple migrants are unhappier (5.12) than one-time migrants (5.20).

SWB and migration exhibit strong regularities in age profiles (Figure 1). Without controlling for personal characteristics, happiness tends to be approximately U-shaped over the adult life cycle with the lowest levels occurring in middle age. The most prominent regularity in the age schedule of migration is the high concentration of migration among young adults. The differences in aggregate measures of happiness between migrants and non-migrants may, therefore, reflect a compositional effect of age. The empirical age profiles of migration and SWB of both migrants and stayers are set out in Figure 1.

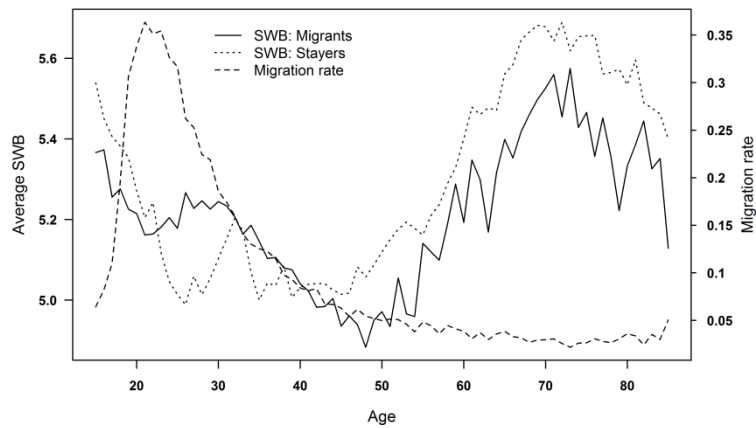


Figure 1 Average subjective well-being (SWB) of migrants and stayers and migration rate by age, 1996-2008

We can make a few observations based on the presented age schedules and the relationship between them. The average SWB of the total population starts high in young adulthood, reaches the minimum at age 45, then rises substantially to age 70 and starts to decline thereafter. Most migration events are concentrated between ages 18-30. Non-migrants are happier than migrants at all ages except between 23 and 40 years. The higher SWB of migrants at the most mobile ages, which drives the happiness of the whole population, suggest a positive impact of changing place of residence, at least in short term. An increase in SWB for migrants may also be attributed to the relationship between age and other aspects of the family life-cycle and the resulting motives for migration (e.g. marriage). In order to understand the impact of migration on SWB, it is therefore of importance to follow the same individuals over time, and control for other life events and personal characteristics.

Before we move on to the analysis of the long-term dynamics of SWB, we present a comparison of male and female happiness before and after migration depending on distance and reason for the move (see Table 1). At the first interview following a migration event the respondents' average SWB is 5.15, which is significantly higher by 0.05 than that at the interview preceding the move. Distance itself has a limited impact on the happiness level reported after a change of place of residence. Nonetheless, migrants who move a distance of 25-50 km report the largest increase in happiness after migration. As expected, reasons for moving influence the migration outcome. In general, job related moves lead to happier people than moves for other reasons, regardless of the distance moved.

Table 1 Post-migration average subjective well-being (SWB) by reason for migration, gender and distance ^a

Reason for migration	Gender	Distance in kilometres						
		0-5	5-10	10-25	25-50	50-100	100-200	200+
Job	Male	5.22 (0.16)	5.23 (0.37)	5.27 (0.39)	5.34 (0.25)	5.31 (0.21)	5.21 (0.16)	5.21 (0.15)
	Female	5.36 (0.23)	5.33 (0.44)	5.15 (0.10)	5.29 (0.27)	5.25 (0.00)	5.18 (0.06)	5.17 (0.19)
Other reasons	Male	5.14 (0.01)	5.15 (0.02)	5.12 (0.10)	5.16 (0.23) *	5.15 (-0.05)	5.04 (-0.13)	5.12 (0.24)
	Female	5.16 (0.08) *	5.08 (0.04)	5.18 (0.11)	5.27 (0.06)	5.18 (-0.09)	5.03 (0.00)	5.03 (0.08)
All reasons	All	5.15 (0.05) *	5.12 (0.05)	5.15 (0.11) *	5.23 (0.16) *	5.22 (-0.02)	5.13 (-0.02)	5.15 (0.13)

Notes: ^a in parentheses change compared to pre-migration SWB; * significant at 5%

The average SWB of males and females does not differ much. There are, however, some remarkable discrepancies between the happiness of partners, both married and cohabiting, migrating together (Table 2). Men become happier only when migration is related to their own job and migration is even more rewarding when the spouse's job is also a motivating factor. The post-migration SWB of women migrating with partners remains practically the same as it was before the move, regardless of migration reason. They are relatively happy and being a tied migrant is not really harmful for their level of happiness.

Table 2 Post-migration average subjective well-being (SWB) of partners in migrating couples ^{a, b}

Reason for migration	No. of migrations by couples	Male	Female
Man's job	218	5.35 (0.12)	5.35 (-0.03)
Woman's job	96	5.07 (-0.06)	5.30 (0.00)
Both partners' jobs	133	5.39 (0.18)	5.27 (0.03)
Other reason	2841	5.21 (-0.01)	5.28 (0.01)

Notes: ^a couples include both married and cohabiting partners; ^b in parentheses change compared to pre-migration SWB (all are not significant at 5%).

An analogous comparison of men's and women's labour income before and after migration reveals a different picture. Men's income starts to increase considerably after migration, whereas women's income remains more or less stable. In the case of migrating partners, being a trailing spouse means having a lower income for women in the first years after migration. These findings are similar to the results previously found in the literature.

4.2. Dynamic effect of migration on SWB

The examined period spreads over eleven years. It begins five years prior to the year when a person reports a move and ends five years after the move. The first year of the eleven year period sets the initial happiness level and it is assumed that this level is not affected by future (anticipated) migration behaviour. The coefficient θ_{-5} is, therefore, fixed and equal to zero (see Equation (1) in Section 3). The estimated dynamic effect of migration on SWB for the full sample and for men and women separately is illustrated in Figure 2. Here and in the following figures the vertical line at zero indicates the moment when migration was

measured. However, time zero is the time of the interview and inevitably the interview occurred after the migration event. Thus the migration event took place at an unspecified time between minus one and zero on the graph. Detailed regression results are presented in Table 3.

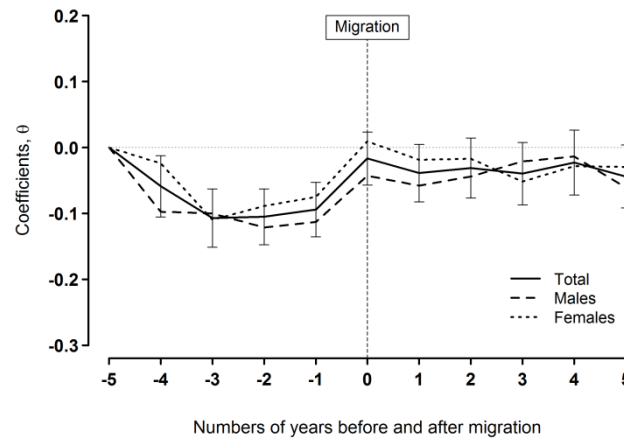


Figure 2 The dynamic effect of migration on subjective well-being (SWB) for total, males and females; all moves

Notes: In this and following figures error bars indicate 95% confidence intervals.

For the full sample, the regression coefficients on the migration-related dummies are all negative except for the year of migration for women (Figure 2 and the first ten rows of Table 3). SWB drops to a level significantly lower than zero four years before the change of residence and remains significantly negative until the year preceding the change. The first important finding of this study is therefore that migration boosts migrants' happiness relative to feelings of well-being before moving. More precisely, migration seems to take away negative feelings or unhappiness, but as Figure 2 shows the upward shift in subjective well-being does not continue in the years after migration. In the year of migration the SWB seems to have returned to its original level and stagnates thereafter. Results in Frijters et al (2011) also show a slight drop in life satisfaction in the quarters before a change of residence. The pattern presented above is compatible with the idea that migration takes place as a result of increasing stress (up to a certain threshold). Moving to overcome the stressor is therefore a positive action, but it does not bring any additional happiness or improved well-being relative to the migrant's status before the stressor took effect. The interpretation of the findings would uphold research on the 'immobility paradox' (Fischer and Malmberg, 2001) that notes that most people do not move unless they have to. A final feature of Table 3 that is worth highlighting is that the results substantiate the view that circumstances at a time well before the migration event are critical in bringing about the decision to move. There is a three year lag between the low point on the SWB graph and the time of migration, which may be caused by the time it takes to search and find a new residential location that satisfies the desires of the potential movers.

The effects of the control variables on SWB confirm largely what is already known from the literature: there is a large negative impact of unemployment and long-term sickness; being married or living as a couple increases SWB; and being separated or widowed is associated with the lowest level of happiness. Self-assessed health and household income were not included in the final model due to their potential endogeneity, but models which do include these variables do not show a change in the substantial results of this study (results not shown).

Table 3 Fixed-effects model of subjective well-being; the coefficient estimates for the whole sample ^{a, b}

Variable	Total	Males	Females
<i>No. of years before and after migration</i>			
-4	-0.059** (0.024)	-0.098*** (0.034)	-0.024 (0.033)
-3	-0.107*** (0.023)	-0.100*** (0.032)	-0.110*** (0.031)
-2	-0.105*** (0.022)	-0.121*** (0.031)	-0.089*** (0.030)
-1	-0.094*** (0.021)	-0.113*** (0.030)	-0.075** (0.029)
0	-0.017 (0.021)	-0.043 (0.029)	0.009 (0.029)
1	-0.039* (0.022)	-0.058* (0.032)	-0.019 (0.031)
2	-0.031 (0.023)	-0.044 (0.033)	-0.017 (0.032)
3	-0.040 (0.024)	-0.021 (0.035)	-0.052 (0.034)
4	-0.023 (0.025)	-0.014 (0.036)	-0.028 (0.035)
5	-0.044* (0.024)	-0.061* (0.035)	-0.030 (0.034)
Age	-0.001 (0.003)	-0.014*** (0.004)	0.011*** (0.003)
Age squared/100	-0.008*** (0.002)	0.005 (0.003)	-0.019*** (0.003)
<i>Marital status</i>			
Married / living as couple	0.133*** (0.016)	0.127*** (0.024)	0.138*** (0.023)
Widowed	-0.212*** (0.030)	-0.152*** (0.048)	-0.230*** (0.038)
Divorced	-0.084*** (0.027)	-0.140*** (0.042)	-0.049 (0.036)
Separated	-0.279*** (0.030)	-0.324*** (0.045)	-0.243*** (0.039)
<i>Labour market status</i>			
Unemployed	-0.309*** (0.016)	-0.368*** (0.022)	-0.254*** (0.025)
Student	0.107*** (0.017)	0.108*** (0.025)	0.107*** (0.023)
Long term sick, disabled	-0.504*** (0.019)	-0.611*** (0.028)	-0.425*** (0.026)
Child born this year	0.068*** (0.014)	0.030 (0.021)	0.098*** (0.020)
Number of children	-0.013** (0.005)	0.002 (0.008)	-0.028*** (0.007)

Notes: ^a coefficients on wave dummies are not reported; reference category is never married; ^b standard errors in parentheses; * significant at 10%, ** significant at 5%, *** significant at 1%.

The models also reveal that females migrating in couples experience similar SWB trends as their partners (results not shown). This contradicts conclusions from the family migration literature which shows that women who move in a couple often experience temporary negative effects of migration. This might be true for their income and labour market position, but being a tied mover does not seem to affect their happiness. This may suggest that tied movers are a selective group of people who attach lower importance to work than the lead movers. Another result which is noteworthy is that men's happiness does not appear to be affected by either the birth of a child or the number of children in the household.

The great diversity in migration experiences and underlying motivations suggests that it might be fruitful to analyse separately different groups of movers by their self-defined motivations and types of moves in terms of distance and household type. An elaborate division of migration events into subgroups would lead to very small sample sizes and therefore we disaggregated the sample into a limited number of broad categorisations of movement types. We distinguish local moves from more distant moves with a threshold set at 25 km. Local moves are dominated by moves for housing and personal reasons and long distance moves are dominated by job and education related migration. The 25 km threshold also approximates the significant divide recognised in migration studies between moves that permit the mover to maintain social ties with most of their former social network and longer

distance moves that require the migrant to form new social bonds (van Ham, 2012). On this basis one might anticipate that short distance movers would be happier than longer distance movers simply because they experience less social costs when moving.

Figure 3 plots changes in the SWB around the time of the migration event estimated separately for long- and short-distance moves. Curiously, and counter to our hypothesis, long-distance migrants seem to be happier in general than short-distance movers, despite the assumed breaking up of social networks. Moreover, the positive effect of migration is observed for a longer period (two years after move) before it starts to wear off. The sample size for longer distance migrants is small and therefore some caution is required when interpreting the results. In Figure 4, where we look at men and women separately, we therefore focus on short-distance moves compared to all moves, as this is a relatively large group.

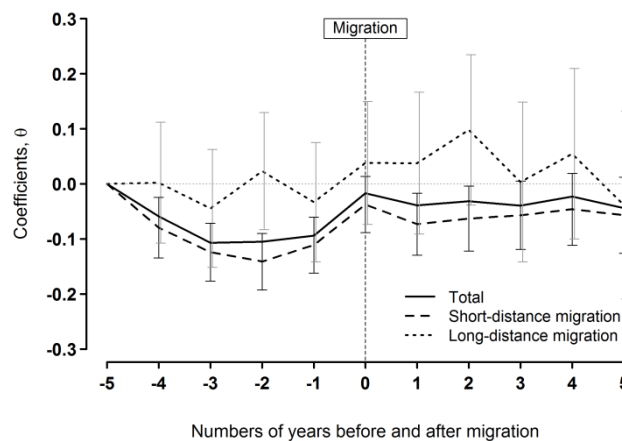


Figure 3 The dynamic effect of short- and long-distance migration on subjective well-being (SWB); all moves

Interestingly, for men, short distance moves take place after a relatively large decline in SWB (Figure 4) and men do not recover to their initial level of well-being in the years after the move. Men moving over longer distances do seem to boost their level of happiness more, which is likely to be caused by job-related gains. For women we do not find any differences between short distance moves and all other moves in terms of their impact on SWB. Again these results suggest that the relative importance of different life domains in determining general life satisfaction differs between genders.

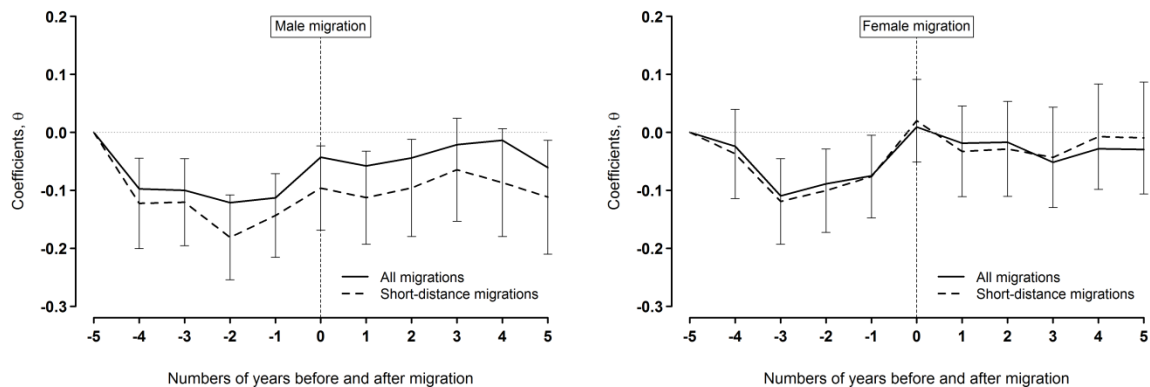


Figure 4 The dynamic effect of short-distance migration on subjective well-being (SWB) of males (left panel) and females (right panel); all moves

4.3. The effects of sample selection and life events on SWB

Thus far the results have been based on models including multiple migration events for some sample members. Limiting the models to examine SWB effects only for one-time migrants produces starkly different outcomes (Figure 5). It is important, however, to bear in mind that concentrating only on one-time migrants introduces some bias in the data (Section 3.1). Including only one-time migrants shows that female SWB trajectories are not statistically different from those estimated for all moves. Males, in contrast, receive a significant and lasting boost to their happiness after migration and do not experience any significant drop in well-being prior to the move. These results suggest that there is no universal SWB trajectory that holds for all types of migration.

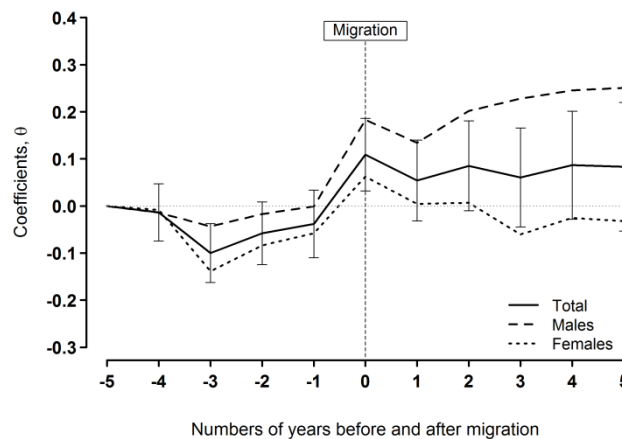


Figure 5 The dynamic effect of migration on subjective well-being (SWB) for total, males and females; one-time migrants

A disaggregated longitudinal analysis of migration also gives insights into phenomena occurring prior to migration in relation to SWB. Migration is known to be associated with other major life events prior to the migration date (like having a baby, changing job and especially, forming or breaking up a partnership). Table 4 shows relative chances of selected partnership transitions in the four-year period preceding migration for the BHPS migrants as compared to stayers. Stress from changing personal circumstances might lead to a drop in SWB before a move (as observed in Figures 2-5) and the actual move is then an instrument to regain some, or all, of the initial SWB level.

Table 4 Relative chance of selected partnership transitions (future migrants compared to stayers)

Transition		Migrants/stayers
From	To	
Never married →	Living as couple	13.3
	Married/civil partnership	5.4
Married/civil partnership →	Separated	9.1
	Divorced	4.5
	Widowed	0.9
Separated →	Living as couple	6.1
Divorced →	Living as couple	4.4

It is worth noting that in the BHPS data one-time migrants are only half as likely as multiple

migrants to have experienced a separation or divorce before migration. Others have shown that divorce is preceded by a significant drop in life satisfaction among males but not among females (Clark et al, 2008a). This may explain, at least partially, the lack of any significant drop in SWB prior to migration for one-time migrants. Women can deal better with separation or divorce but they seem to carry a greater additional burden before a move than men, which is connected mainly with the scope of housework and responsibility for children (Magdol, 2002).

5. Discussion and conclusions

The overall goal of this paper has been to answer the question whether migration makes you happy by analysing contemporary longitudinal data from the BHPS. The majority of quantitative studies on the consequences of internal migration focus almost exclusively on the labour market outcomes and the material well-being of migrants. One of the strengths of this paper is that we study the impact of migration within a conceptual framework that accounts for social well-being. The second strength of this paper is that the use of longitudinal data allowed us to examine whether the effects of migration on happiness are transient or permanent.

The results show that there are significant SWB changes associated with mobility with the strongest effect in the year of migration. Migrants are happier just after the move than they were just prior to it. A broader temporal perspective reveals, however, that migration is preceded by a decline in SWB. Opportunities available to migrants at new places of residence seem to provide a way out of unhappiness. An alternative hypothesis could be that a decline in happiness before the move reflects the anticipation of the negative effects of moving (in relation to the associated stresses of social networks disruption, leaving familiar surroundings and adjusting to the new environment). The boost in happiness received through migration brings people back to their initial level of SWB. Counter to our expectations, long-distance movers are at least as happy as short-distance movers despite the higher social costs that are involved. Moreover, happiness outcomes after migration, as opposed to labour market outcomes, do not differ significantly by gender. The happiness of women, who are more often than men tied migrants, does not seem to be dented by migration even though their career opportunities may become more limited.

In the broader context of SWB our results support the set-point theory of happiness. Individuals shift away from a baseline SWB in relation to migration, but they tend to come back to their long-term happiness level at a later date. It is questionable whether it is possible to accomplish a long lasting improvement in SWB through migration (at least the types of migration movement captured by the BHPS), a result which is important in the on-going debate on policy aiming at improving the well-being of individuals and societies.

This study has shown that the use of long-run longitudinal data is essential for research into the drivers of and barriers to happiness. Analyses which are limited to investigating happiness at only one point in time, or to comparing levels of SWB only at one point before and after the migration event, are likely to arrive at erroneous conclusions.

Despite its contribution to the understanding of both migration and happiness our study has a few limitations. Although BHPS data enable us to link migrating individuals within couples and to identify lead and tied spouses, the resulting sample size is small in relation to analysing the long-term happiness patterns for tied movers. Our findings on tied movers are based, therefore, on a comparison between men and women and an underlying assumption that most trailing spouses are women. In addition, the relative importance of various life domains for males and females in the context of migration needs further investigation. The sample size of the BHPS limits the possibilities to analyse the impacts of various migration types on SWB. It would be desirable to investigate the happiness

consequences of migration by migration motives. In this study we distinguish short-distance moves from long-distance moves but this is only a crude approximation of migration reasons.

In closing, we ask and attempt to briefly answer two questions. First, what has this paper contributed to the wider understanding of migration and well-being? Second, what are the implications of this research in relation to exploring the relations between migration and set-point theory?

In answer to the first question, the paper has sought to offer a particularly rigorous analysis of one metric associated with well-being relative to the timing of migration. The originality of the findings, as summarised above, lies in showing that for the individual mover there is a transient relationship with happiness, relating primarily to the years before migration. The returns to migration in terms of happiness appear to be time-specific and not to accumulate after migration, unlike for example potential returns to human capital where one would expect that benefits might accrue to the migrant over many years as anticipated by neo-classical models of labour migration. Those seeking to theorise migration at the scale of the individual mover need therefore to consider why non-economic returns as measured by indicators of well-being suggest only transient losses and gains. The research findings might therefore be taken to challenge existent theorisations of migration, such as those suggesting that the deeper drivers of migration lie in the social and cultural meanings of mobility rather than in more easily understood economic rewards (Findlay and Stockdale, 2003; Halfacree and Boyle, 1993). A more likely resolution of the differences between the current authors' findings and the conceptualisation of migration in the research literature might be found in the suggestion that the research results in this paper relate to the kinds of internal migration captured by the BHPS (involving mainly moves associated with factors like housing needs and life-course adjustments such as divorce (Boyle et al, 2008)). Different findings might emerge from analysis of other data sets linking well-being before and after long-distance and international migration. For longer distance moves different scales of cultural and social disruption seem probable. We anticipate that in the case of such moves migrant experiences of integration or exclusion may produce different SWB outcomes.

Turning finally to the wider implications in relation to set-point theory, some might suggest that the findings indicate that internal migration is unlike life events such as marriage, loss of a job or major injury. While these events often have a lasting impact on happiness (Clark et al, 2008a; Lucas et al, 2003), our analyses of internal migration seem to confirm set point theory views that individuals have stable levels of well-being. Once destabilising events such as migration (or the causes necessitating migration) have been negotiated, people return to their original level of well-being. An alternative interpretation (and one that we believe our results begin to support as a result of offering detailed insights of temporal variations in SWB) would be that the prospects of mobility as well as the act of engaging in internal migration may be a critical means for restoring an individual's level of social well-being, especially following previous stressful events.

Indeed one might suggest that without migration the stable sense of well-being anticipated by set point theory might not be regained. Resolving this quandary may well be possible through linking motivations for migration to models of well-being in relation to specific life domains. For example, as shown by Findlay and Nowok (2012), features of life satisfaction, such as employment, are affected differently as a consequence of migration from domains such as social life or housing. Further more detailed analysis of the relations between social well-being and migration, might therefore help not so much to answer the question 'does migration make you happy?', but rather to substantiate the claim that mobility is one of several means by which an individual can regain a stable sense of well-being in the fashion anticipated by set point theory.

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References

- Blanchflower D G, Oswald A J, 2008, "Is well-being U-shaped over the life cycle?" *Social Science and Medicine* **66** 1733-1749
- Blanchflower D G, Oswald A J, 2009, "The U-shape without controls: A response to Glenn" *Social Science and Medicine* **69** 486-488
- Boyle P, Cooke T, Halfacree K H, Smith D, 1999a, "Gender inequality in employment status following family migration in GB and the US: the effect of relative occupational status" *International Journal of Sociology and Social Policy* **19** 109-143
- Boyle P, Cooke T, Halfacree K H, Smith D, 1999b, "Integrating GB and US Census Microdata for studying the impact of family migration on partnered women's labour market status" *International Journal of Population Geography* **5** 157-178
- Boyle P, Cooke T, Halfacree K H, Smith D, 2001, "A cross-national comparison of the impact of family migration on women's employment status" *Demography* **38** 201-213
- Boyle P, Kulu H, Cooke T, Gayle V, Mulder C H, 2008, "Moving and union dissolution" *Demography* **45** 209-22
- Buck N H, 2000, "Using panel surveys to study migration and residential mobility", in *Researching Social and Economic Change: The Uses of Household Panel Studies* Ed. D Rose (Routledge, London) pp 250-272
- Champion T, 2005, "Population movement within the UK", in *Focus on People and Migration* Ed. R Chappell (Palgrave Macmillan, Basingstoke) pp 91-113
- Chiswick B R, 2008, "Are immigrants favorably self-selected? An economic analysis", in *Migration Theory: Talking Across Disciplines* Eds C D Brettell, J F Hollifield 2nd edition (Routledge, New York) pp 63-82
- Clark A E, Diener E, Georgellis Y, Lucas R E, 2008a, "Lags and leads in life satisfaction: a test of the baseline hypothesis" *Economic Journal* **118** F222-F243
- Clark A E, Frijters P, Shields M A, 2008b, "Relative income, happiness, and utility: an explanation for the Easterlin paradox and other puzzles" *Journal of Economic Literature* **46** 95-144
- Clark W A V, Huang Y, 2006, "Balancing move and work: women's labour market exits and entries after family migration" *Population, Space and Place* **12** 31-44
- Cooke T J, 2003, "Family migration and the relative earnings of husbands and wives" *Annals of the Association of American Geographers* **93** 338-349
- Cooke T J, 2008, "Gender role beliefs and family migration" *Population, Space and Place* **14** 163-175
- Cooke T J, Bailey A J, 1999, "The effect of family migration, migration history and self-selection on married women's labour market achievement", in *Migration and Gender in the Developed World* Eds P Boyle, K Halfacree (Routledge, London) pp 102-113
- Couch K A, 2001, "Earnings losses and unemployment of displaced workers in Germany" *Industrial and Labor Relations Review* **54** 559-572
- Couch K A, Jolly N A, Placzek D W, 2011, "Earnings losses of displaced workers and the

- business cycle: an analysis with administrative data" *Economics Letters* **111** 16-19
- Couch K A, Placzek D W, 2010, "Earnings losses of displaced workers revisited" *American Economic Review* **100** 572-589
- Coulter R, van Ham M, 2012, "Partner disagreement on moving decisions and the subsequent moving behaviour of couples" *Population Space and Place* **18** 16-30
- Cummins R A, 1996, "The domains of life satisfaction: An attempt to order chaos" *Social Indicators Research* **38** 303-328
- Diener E, 2009, "Subjective well-being", in *The Science of Well-Being: The Collected Works of Ed Diener* Ed. E Diener (Springer, The Netherlands) pp 11-58
- Diener E, Diener C, 1996, "Most people are happy" *Psychological Science* **7** 181-185
- Diener E, Scollon C N, Lucas R E, 2003, "The evolving concept of subjective well-being: the multifaceted nature of happiness" *Advances in Cell Aging and Gerontology* **15** 187-219
- Diener E, Seligman M E P, 2004, "Beyond money: toward an economy of well-being" *Psychological Science in the Public Interest* **5** 1-31
- Dolan P, Peasgood T, White M, 2008, "Do we really know what makes us happy? A review of the economic literature on the factors associated with subjective well-being" *Journal of Economic Psychology* **29** 94-122
- Easterlin R A, 1995, "Will raising the incomes of all increase the happiness of all?" *Journal of Economic Behavior and Organization* **27** 35-47
- Easterlin R A, 2001, "Income and happiness: towards a unified theory" *The Economic Journal* **111** 465-484
- Easterlin R A, 2006a, "Building a better theory of well-being", in *Economics and Happiness: Framing the Analysis* Eds L Bruni, P Porta (Oxford University Press, Oxford)
- Easterlin R A, 2006b, "Life cycle happiness and its sources. Intersections of psychology, economics, and demography" *Journal of Economic Psychology* **27** 463-482
- Easterlin R A, McVey L A, Switek M, Sawangfa O, Zweig J S, 2010, "The happiness-income paradox revisited" *Proceedings of the National Academy of Sciences* **107** 22463-22468
- Ferrer-i-Carbonell A, 2005, "Income and well-being: An empirical analysis of the comparison income effect" *Journal of Public Economics* **89** 997-1019
- Ferrer-i-Carbonell A, Frijters P, 2004, "How important is methodology for the estimates of the determinants of happiness?" *Economic Journal* **114** 641-659
- Findlay A M, Nowok B, 2012 "The uneven impact of different life domains on the wellbeing of migrants." CPC Working Paper 25 (ESRC Centre for Population Change, UK)
- Findlay A M, Stockdale A, 2003, "The temporal and social embeddedness of migration: a methodological exploration using biographical analysis" *Geography Research Forum* **23** 4-29
- Fischer P A, Malmberg G, 2001, "Settled people don't move: on life course and (im-)mobility in Sweden" *International Journal of Population Geography* **7** 357-371
- Florida R, 2002 *The Rise of the Creative Class* (Basic Books, New York)
- Frijters P, Johnston D W, Shields M A, 2011, "Life satisfaction dynamics with quarterly life event data" *Scandinavian Journal of Economics* **113** 190-211
- Glenn N, 2009, "Is the apparent U-shape of well-being over the life course a result of inappropriate use of control variables? A commentary on Blanchflower and Oswald (66: 8, 2008, 1733-1749)" *Social Science and Medicine* **69** 481-485
- Halfacree K H, 1995, "Household migration and the structuration of patriarchy: evidence from the USA" *Progress in Human Geography* **19** 159-182
- Halfacree K H, Boyle P, 1993, "The challenge facing migration research: the case for a biographical approach" *Progress in Human Geography* **17** 333-348

- Headey B, 2010, "The set point theory of well-being has serious flaws: on the eve of a scientific revolution?" *Social Indicators Research* **97** 7-21
- Jacobson L S, LaLonde R J, 1993, "Earnings losses of displaced workers" *American Economic Review* **83** 685
- Kahneman D, Krueger A B, Schkade D, Schwarz N, Stone A A, 2006, "Would you be happier if you were richer? A focusing illusion" *Science* **312** 1908-1910
- Layard R, Clark A, Senik C, 2012, "The causes of happiness and misery", in *World Happiness Report* Eds J Helliwell, R Layard, J Sachs (Earth Institute, Columbia University, New York)
- LeClere F B, McLaughlin D K, 1997, "Family migration and changes in women's earnings: a decomposition analysis" *Population Research and Policy Review* **16** 315-335
- Lichter D T, 1983, "Socioeconomic returns to migration among married women" *Social Forces* **62** 487-503
- Lucas R E, Clark A E, Georgellis Y, Diener E, 2003, "Reexamining adaptation and the set point model of happiness: reactions to changes in marital status" *Journal of Personality and Social Psychology* **84** 527-539
- Lucas R E, Clark A E, Georgellis Y, Diener E, 2004, "Unemployment alters the set point for life satisfaction" *Psychological Science* **15** 8-13
- Magdol L, 2002, "Is moving gendered? The effects of residential mobility on the psychological well-being of men and women" *Sex Roles* **47** 553-560
- McAdams K K, Lucas R E, Donnellan M B, 2011, "The role of domain satisfaction in explaining the paradoxical association between life satisfaction and age" *Social Indicators Research* (forthcoming)
- McCollum A, 1990 *The Trauma of Moving: Psychological Issues for Women* (Sage Publications, London)
- Mincer J, 1978, "Family migration decisions" *The Journal of Political Economy* **86** 749-773
- Morrison D R, Lichter D T, 1988, "Family migration and female employment: the problem of underemployment among migrant married women" *Journal of Marriage and Family* **50** 161-172
- Mulder C H, Cooke T J, 2009, "Family ties and residential locations" *Population, Space and Place* **15** 299-304
- Pavot W, Diener E, in press, "Happiness experienced: The science of subjective well-being", in *Oxford Handbook of Happiness* Eds I Boniwell, S David (Oxford University Press, Oxford)
- Prime Minister's Office, 25 November 2010, "PM speech on wellbeing", <http://www.number10.gov.uk/news/speeches-and-transcripts/2010/11/pm-speech-on-well-being-57569>
- Rabe B, Taylor M, 2010, "Residential mobility, quality of neighbourhood and life course events" *Journal of the Royal Statistical Society: Series A (Statistics in Society)* **173** 531-555
- Schimmack U, 2008, "The structure of subjective well-being", in *The Science of Subjective Well-Being* Eds R Larsen, M Eid (Guilford Press, New York) pp 97-123
- Schneider L, Schimmack U, 2009, "Self-informant agreement in well-being ratings: a meta-analysis" *Social Indicators Research* **94** 363-376
- Shihadeh E S, 1991, "The prevalence of husband-centered migration: employment consequences for married mothers" *Journal of Marriage and Family* **53** 432-444
- Stiglitz J, Sen A, Fitoussi J, 2009, "Report by the Commission on the Measurement of Economic Performance and Social Progress", www.stiglitz-sen-fitoussi.fr
- Stratton A, 2010, "David Cameron aims to make happiness the new GDP" *The Guardian* 15 November, page 14, <http://www.guardian.co.uk/politics/2010/nov/14/david-cameron->

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- Stutzer A, 2004, "The role of income aspirations in individual happiness" *Journal of Economic Behavior & Organization* **54** 89-109
- van Ham M, 2002 *Job access, workplace mobility, and occupational achievement* (Eburon, Delft)
- van Ham M, 2012, "Housing behaviour", in *Handbook of Housing Studies* Eds D Clapham, W A V Clark, K Gibb (Sage, London) pp 47-65
- van Ham M, Büchel F, 2006, "Unwilling or unable? Spatial and socio-economic restrictions on females' labour market access" *Regional Studies* **40** 345-357
- van Praag B M S, Frijters P, Ferrer-i-Carbonell A, 2003, "The anatomy of subjective well-being" *Journal of Economic Behavior & Organization* **51** 29-49
- White R, 2010, "Long-run wage and earnings losses of displaced workers" *Applied Economics* **42** 1845-1856