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Discussion Paper



Women between Part-Time and Full-Time Work

The Influence of Changing Hours of Work
on Happiness and Life-Satisfaction

Vanessa Gash, Antje Mertens, Laura Romeu Gordo

Harriet Taylor Mill-Institut für Ökonomie und Geschlechterforschung
Discussion Paper 07, 12/2009

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**Discussion Papers des Harriet Taylor Mill-Instituts für Ökonomie und
Geschlechterforschung der Hochschule für Wirtschaft und Recht Berlin**

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Discussion Paper 07/2009

ISSN 1865-9608

Download unter Publikationen: www.harriet-taylor-mill.de

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Abstract

This paper asks whether part-time work makes women happy. Previous research on labour supply has assumed that as workers freely choose their optimal working hours on the basis of their innate preferences and the hourly wage rate, outcome reflects preference. This paper tests this assumption by measuring the impact of changes in working-hours on life satisfaction in two countries (the UK and Germany using the German Socio-Economic Panel and the British Household Panel Survey). We find decreases in working-hours bring about positive and significant improvement on well-being for women.

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1. Introduction

This paper asks whether part-time work makes women happy. While conventional economic models of labor supply assume that workers choose their optimal working hours on the basis of their opportunity structures as well as their innate preferences, this paper tests that assumption. Previous work has examined a broad range of factors influencing individual supply decisions including life cycle stages, spouses' income, commuting costs and institutional context (John Pencavel 1987; Mark Killingsworth and James Heckman 1987; Richard Blundell and Thomas MaCurdy 1999). Comparatively few, however, have tried to measure preferences directly, (e.g. Rene Böheim and Mark Taylor 2004), most probably because preferences are notoriously difficult to capture in standard micro-level data (Gash 2008). Rather than look at working preferences this paper examines the relationship between actual working hours (focusing on differences between part-time versus full-time hours) and individual well-being. Such a strategy avoids the assumptions of outcome reflecting preference, but does rest on the assumption that preferred outcomes will bring positive gains to well-being.

While the discipline of economics has traditionally shied away from empirical assessments of subjective indicators, there has been a dramatic change of heart in recent years (for instance Richard Layard's work on Happiness 2005). Other disciplines, notably social policy, defend the analysis of subjective indicators as necessary for the evaluation and design of policy (Ruut Veenhoven 2002). Following from these traditions, we regard an assessment of workers well-being in employment to be both a valid question for research as well as being a powerful way of determining whether workers appear able to pursue their preferred working strategy. Additionally, if part-time work positively affects individuals' well-being, this suggests recent developments to support workers' right to request reduced working-hours will be both welfare enhancing and will address a key need in the workforce. This is particularly pertinent as both Germany (in 2000) and the UK (in 2003) have brought in legislation that supports workers in their requests for reduced-hour employment if the worker has care responsibilities.¹ On the other hand if we find part-time work to be associated with a decrease in well-being, for example because earnings and working conditions

¹ These policies have already come under attack, most recently in the UK where they were accused of being too costly at a time of economic recession (<http://www.guardian.co.uk/politics/2008/oct/21/mandelson-economy>).

are often inferior in part-time posts, then facilitating full-time employment should be at the core of policy makers agenda.

The paper uses panel data that allow us to trace the employment dynamics of workers together with their history of life-satisfaction. While other studies on the topic have sought to explain *levels* of happiness within countries (Alison Booth and Jan van Ours 2008a and 2008b), we investigate *changes* in happiness and compare the UK and Germany, two countries with relatively high part-time rates. By choosing countries with high rates of part-time employment we are more likely to catch supply side decisions than in countries where employers offer few part-time jobs, even with legislation supporting workers in their pursuit of reduced hour posts. Additionally, by focusing on an assessment of *changes* in levels of happiness, we avoid the problem associated with both cultural specificities and linguistic differences in the way well-being questions are asked, which can make comparisons of levels hard to interpret. Finally, an assessment of changes in happiness solves the problem of unobserved heterogeneity innate in happiness studies by comparing happiness for the one person at two points in time. We therefore analyze whether transitions between part-time and full-time employment significantly affect women's happiness; and test whether hours worked influence happiness when (re-) entering the labor market from non-employment. Our analysis focuses on women in relationships, as female supply to part-time work tends to be a function of their access to alternative sources of income within the home. Additionally, as a significant portion of women who work part-time do so to care for their children, selecting on women in partnerships allows us to exclude lone parents who face unique constraints in their market attachment (Jane Lewis 1997). We would have liked to provide a similar assessment for men however men's under-representation in part-time jobs made such an assessment unfeasible.

The following Section 2 will give an overview of studies on happiness and summarizes the most important facts about part-time employment in both countries. Our data sets used (the German Socio-Economic Panel (SOEP) and the British Household Panel (BHPS)), selection issues and methods will be introduced in Section 3. This is followed by our detailed empirical study in Section 4 and our conclusions in Section 5.

2. Part-Time Work and Well-Being

Psychologists and occupational health researchers² have a long tradition of dealing with questions on life satisfaction and well-being, while economists have only relatively recently started to consider such 'soft' indicators as relevant for economic research (i.e. Richard Layard's work on Happiness, 2005). This late recognition of subjective well-being measures is surprising as life and job satisfaction are almost certainly linked to job performance and turnover (Koys, D.J. 2001). Nonetheless, many economists remain critical of researchers' ability to measure subjective phenomena not least because individuals possibly vary their responses according to their moods or the ordering of questions in the questionnaire for instance. Many economists indeed still believe that it is better to look at revealed-preferences, i.e. they believe that outcome reflects the choices made by individuals and therefore their preferences (for a discussion see Bruno Frey and Alois Stutzer 2002). There are many problems with this view not least the reality of limited choice. In our sample, for instance, we have relatively high percentages of workers who would prefer different working-hours than the hours they currently work.³

While some argue that life-satisfaction measures are imperfect measures of experience (for a discussion see Daniel Kahnemann and Alan Krueger 2006), others defend its use showing that life satisfaction is correlated with other more objective measures (for an extensive overview see Ed Diener and Eunkook Suh 1999). Still, Kahnemann and Kruger stress that "it is important to recognize that subjective well-being measures features of individuals' perceptions of their experiences, not their utility as economists typically conceive of" (p.4).⁴ Bruno Frey and Alois Stutzer (2002) call this the subjective view of utility and this is the idea we pursue here in our analysis of the change in life-satisfaction associated with a change in working hours. The SOEP and BHPS both ask large samples of people how they feel and this paper examines what they have to say; and in particular how changes in objective working status influence subjective evaluations of their lives.

² See Rosalind Barnett (2004) for a brief introduction to this line of literature.

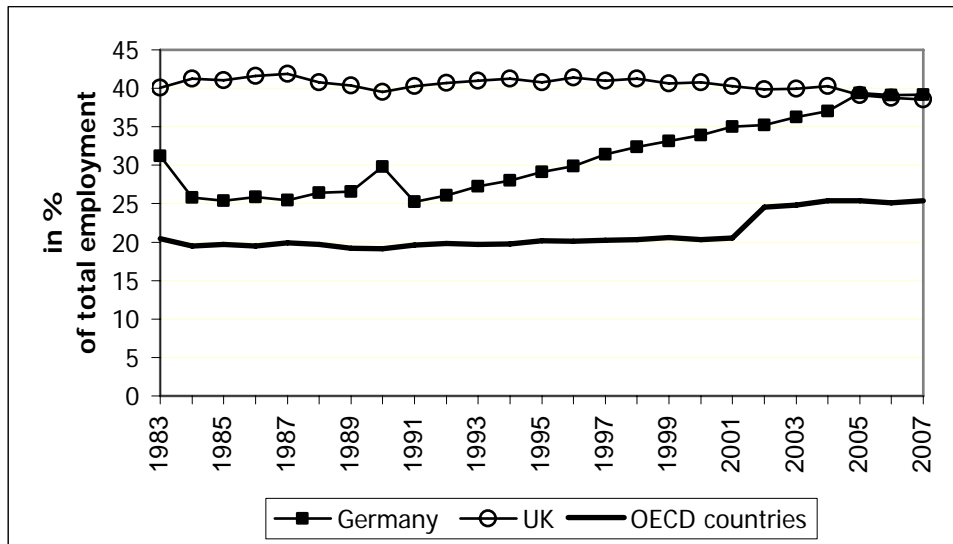
³ In the German sample 55% of women work more hours than their preferred hours and 17% work less. In the British sample 33% would prefer to work fewer hours while 5% would like to work more. See section 2.1 for a discussion.

⁴ Utility is a measure of (dis-)satisfaction derived from different activities like working or consuming.

2.1. What we know (and don't know) about women working part-time

The share of part-time workers has increased across OECD countries since the 1980s (see Figure 1). In Germany the increase has been more pronounced than in the UK but from a lower level so that today part-time rates are roughly equal in both countries. The bulk of part-time work is done by women, even though male shares have increased since the early 1980s when roughly 10% of all part-time jobs were occupied by men in both countries. According to OECD data, the male share in 2007 was around 20% in Germany and only slightly higher in the UK at 22.6% (OECD 2008).⁵ In Germany there is still a considerable difference in female part-time rates between the East and West. In the West 45% of all women in employment work part-time while in the East only around 28% of working women work part-time (Silke Bothfeld et al. 2005: Tab. 3.A.11).

Figure 1 – Incidence of part-time work among women



Source: OECD (2008)

Note: The jump in the part-time employment rate among OECD countries between 2001 and 2003 appears to be driven by Oceania where there is a jump from 7,1 to 27,2 % during this period.

⁵ For more detailed information on trends and determinants of part-time work in OECD countries compare OECD 2002 and Florence Jaumotte 2003.

The fate of women in part-time work – especially of those in the UK – is very well documented in a special issue of the *Economic Journal* (see Mary Gregory and Sara Connolly 2008a). Relative to women who work full-time, those employed part-time give up more than income due to their reduced hours. Part-time workers' hourly pay is less than both men's pay and women full-time workers' pay (for Germany and the UK compare e.g. John Ermisch and Robert Wright 1993; Elke Wolf 2002; Elena Bardasi and Janet C. Gornick 2008; Alan Manning and Barbara Petrongolo 2008). Bardasi and Gornick (2008) find part-time pay penalties for most OECD countries, except Sweden, where wage compression is known to be high in international comparison. This earnings gap has been widening in the UK over the years; and a significant share of it is explained by occupational segregation (Bardasi and Gornick 2008; Manning and Petrongolo 2008). In fact, research on the UK by Wendy Olsen and Sylvia Walby (1999) has established that the longer women remain in part-time work (as opposed to full-time) the greater their pay penalty.

Part-time employment tends to be concentrated in low-paid occupations; this means women who switch to part-time jobs can often only do so if they accept a job of inferior occupational worth: in the UK 25% of women who switch to part-time from full-time experience occupational downgrading (Mary Gregory and Sara Connolly 2008b). This problem is aggravated by the fact that women in part-time jobs tend to get less training with employers often reluctant to invest in a workforce regarded as peripheral (OECD 1999). So even if women appear to seek part-time jobs these findings would lead us to expect a decrease in life satisfaction for women if their post is inferior to their previous full-time position.

So why do such high percentages of women work part-time? Theoretically this could simply be work sharing as implied by Becker (1965). If we lived in a perfect neoclassical world, women in part-time and full-time jobs should be equally happy, because they chose their optimal hours of work. We all know that reality differs from this idealistic world in many respects. First of all, there are strong cultural prescriptions concerning women's engagement in paid work as well as the number of hours deemed appropriate. These prescriptions vary by country (for instance few women work part-time in Nordic countries today) and by life-stage; with childless women tending to work full-time and women with children tending to work no or part-time hours in the UK and in Germany (e.g. Eiko Kenjoh 2005). Role theory asserts that gender differences in behavior stem from the different socially prescribed roles we inhabit. Our sense of self, and our acceptance in social groups, is strongly tied to our ability to

adhere to these socially prescribed roles (i.e. Erving Goffman 1959) also for a recent application to the economics literature see George Akerlof and Rachel Kranton 2000). This suggests that if a woman's role in a society is to work part-time and care for children she might feel most content if she follows this model; and conversely may also suffer in her attempts to deviate from this norm⁶. This does not mean that mothers cannot work full-time; many do, but that behaviour at the mean is likely to receive greater social support and re-enforcement than other behaviour. From this perspective we could expect women with children to be the happiest in their transitions to part-time work.

Second, though highly correlated with the first point, different institutional settings structure the forms of employment that women with children can engage in. Countries with little support for maternal employment like the UK and Germany are likely to make full-time employment very difficult for workers with children. In both these countries, reduced access to affordable long-hours childcare prevents many mothers from working full-time hours (see Vanessa Gash (forthcoming) for a review of policies likely to impede working motherhood).

Third, many women are not able to chose their hours of work. Data on preferred hours of work have shown this (for the UK compare René Böheim and Mark Taylor 2004; for Germany Petra Beckmann and Birgit Kempf 1996; Elke Wolf 1998; and recently Elke Holst 2009). For instance using the SOEP and the BHPS data for 2006 we know that 55% of women in Germany and 33% of women in the UK have a preference for fewer hours, meanwhile 17% of women in Germany and 5% of women in the UK would prefer to work more hours. It is important not to compare these figures directly, however, as the question wording is quite different in both countries.⁷ However, we have no way of establishing whether these stated preferences are accommodated or not. That is whether the respondents' preferred hours are actually a function of what is possible, rather than what is desired (see Vanessa Gash 2008 and Susan McRae

⁶ Many studies have revealed the negative stereotypes which people hold of others who deviate from expected norms. For instance Karla Ann Mueller and Janice D. Yoder (1997) show how students held negative views of women who deviated from various norms including; the number of children they had, their forms of work as well as their occupational group.

⁷ In the UK workers are asked: Thinking about the hours you work, assuming that you would be paid the same amount per hour, would you prefer to (1) work fewer hours (2) work more hours (3) continue the same hours. While in Germany they are asked: If you could choose your own number of working hours, taking into account that your income would change according to the number of hours: How many hours would you want to work?

2003). A research strategy that examines whether actual working-hours are associated with well-being is therefore a powerful way of extrapolating preferred outcomes.

There are many objective factors associated with the decision to work part-time. Amongst the most important drivers are additional household income, the number of children in the home as well as the presence of small children in the home (see J.E. Long and E.B. Jones 1981; R.M. Blanck 1988; Giannelli 1996; Siv Gustafsson, Eiko Kenjoh and Cécile Wetzels 2001; Christian Pfeiffer 2007; Gillian Paull 2008). Marco Francesconi and Amanda Gosling (2005) note that it is not necessarily the first child that makes women want to reduce hours of work but possibly the second child. As the number of children increases, time pressure increases as well making full-time work more and more difficult.

Previous research suggests that part-time workers tend to remain in their jobs for extended periods; and that part-time work is therefore rarely used as a 'stepping stone' to full-time work. This has been found in the US by Rebecca Blanck (1994) and similarly by Jacqueline O'Reilly and Silke Bothfeld (2002) for the UK and Germany; with Marco Francesconi and Amanda Gosling confirming this tendency for the UK on more recent data (2005). Combined, these findings suggest that part-time workers are quite distinct from full-time workers in their work orientation. While it is tempting to generalize these findings to all countries; research on countries that have policies supportive of maternal workers do not display similar tendencies (Gash 2008). Gash has found that part-time workers in France and Denmark (two countries with extensive provision of childcare) had similar labor market transitions to full-time workers, while part-time workers in the United-Kingdom (with little access to childcare) appeared to be constrained in their market dynamics. Part-timers in the UK were considerably less likely to make transitions to full-time jobs relative to the average rate of job-to-job mobility amongst full-time workers. This again highlights the role institutions play in market outcome, and therefore reinforces a need to question whether outcome is a function of choice or constraint.

Given the findings on the quality of many part-time jobs we could conclude that many women pursue these jobs through constraint, and we could therefore expect a *decrease in life-satisfaction* to be associated with a *decrease in working-hours*. Nonetheless, if women work part-time through preference/or normative pressure we could expect an *increase in life-satisfaction* to be associated with a *decrease in working-hours*. Indeed we could expect this to be particularly true of maternal workers

in countries like Germany and the UK where there is little policy support for maternal workers to work full-time hours.

We expect also *different effects on life satisfaction* depending on the characteristics of the part-time jobs. Women who remain in the same job but reduce working hours might derive more satisfaction than women who need to accept a worse position in order to be able to reduce their working hours. Since being the master of ones working life is not the only source of life satisfaction; in the next section we discuss other determinants of life satisfaction.

2.2. Major Determinants of Life Satisfaction with Reference to Part-Time Work

While this paper explores whether switches between part-time and full-time work change well-being, the findings of previous work on levels of happiness are worth reviewing. Many economic studies for a variety of countries find that life-satisfaction is U-shaped with age when controlling for other characteristics in microeconomic regressions (compare for example Andrew Clark, Andrew Oswald and Peter Warr 1996; Ioannis Thoeodossiou 1998; Ulf-G Gertham and Magnus Johannesson 2001; Bernd Hajo and Wolfgang Seifert 2003; David Blanchflower and Andrew Oswald 2008). People tend to get unhappier until they reach midlife and then happiness starts to increase again when people get older. With many researchers concluding that people get more and more satisfied with what they have as they age. Conversely, Richard Easterlin (2006) reports that individuals around midlife are the happiest, while Liliane Winkelmann and Rainer Winkelmann (1998) find that happiness and age are negatively correlated.⁸ The issue has remained unresolved so far.

Most research in this area controls for educational level though the impact of education on well-being is far from clear. While it is quite plausible that better educated people are happier, given that they tend to have: better jobs, higher incomes and better health; on the other hand higher educated people tend to have higher aspiration levels and expectations which can decrease well-being if not met. In many ways, therefore, education can be seen to act as a proxy for factors that we cannot otherwise control for. This helps explain the mixed findings concerning educational level and well-being: some report a positive association (amongst others Ulf Gertham and Magnus Johannesson 2001; Bruno Frey and Alois Stutzer 2000; David Blanchflower and Andrew Oswald 2004; Paul Frijters, John Haisken-DeNew, and Michael Shields 2004a; Philip Oreopoulos 2007), while others find a negative association (Clark and Oswald 1996) and some find none (Anna Cristina D'Addio, Tor Eriksson, and Paul Frijters 2003). In our estimations we also include educational controls. This is particularly important given the expectation that higher educated women, who tend to be more work oriented, are more likely to exhibit a decrease in well-being if they move to a part-time job that is likely to have: lower wages, less promotion possibilities and inferior working environments compared to full-time jobs (especially in the UK) as set out above in section 2.1. Our models will therefore control for age and educational level.

⁸ Paul Frijters and Tony Beaton (2008) try to make sense of those different findings.

Apart from personal characteristics, life events are also found to influence life-satisfaction. Marriage, divorce, a family bereavement and the birth of children not only significantly affect well-being, the size of estimated coefficients tend to be very high (Knut Gerlach and Gesine Stephan 1998; Ioannis Theodossiou 1998; Liliana Winkelmann and Rainer Winkelmann 1998; David Blanchflower and Andrew Oswald 2004). Similarly, our analyses have tried to control for these events to ensure that any association between changes in working hours and well-being is not confounded with life events.⁹ This is particularly important in an analysis of working-hours since changes in hours are often linked with the birth of children. It is also particularly important to control for the birth of children, as research shows that having children does not always increase happiness levels. Theodossiou (1998: 95) writes that "The odds of being in a lower level of general happiness and feeling less able to face problems increase by 1.11 and 1.06 times respectively for each additional dependent child, given that the remaining variables are held constant. Thus, love and stress do not appear to be mutually exclusive." Similar results have been found by other researchers (Andrew Clark and Andrew Oswald 1994; Ulf-G Gerdtham and Magnus Johannesson 1997). It is also important to note that female supply to part-time jobs is more often than not a function of their dependence on an alternative source of income in the home. Women in relationships who work part-time tend to differ in their reasons for pursuing reduced hour employment compared to single women; and most importantly mothers with partners face a completely different work-family interface than single mothers. For these reasons, and in an attempt to avoid an overly heterogeneous sample, we focus our analysis on women in relationships and control for household income.

Labour market factors also influence life satisfaction including: unemployment, job quality and income. We discuss these in turn. Just as unemployment influences health negatively it also reduces happiness and well-being measures (Andrew Clark and Andrew Oswald 1994; Gerlach and Stephan 1996; Thomas Korpi 1997; Ioannis Theodossiou 1998; Liliane Winkelmann and Rainer Winkelmann 1998; Raffael DiTella, Robert McCulloch and Andrew Oswald 2001; Nick Carroll 2007). One frequently cited study on the topic (DiTella et al.: 339) reports that for European countries "... an increase in the unemployment rate of a percentage point ... has a cost in the chosen

⁹ Ultimately, there were very few instances of divorce and bereavement in our samples and when we included these events they had little impact on our central findings. We therefore only present the effects of life events which had the strongest effects: increases or decreases in the number of children as well as marriage.

wellbeing units [on a scale of 1 to 4] equal to approximately 0.02 for the average citizen.”

As hours of work, obviously, influences monthly earnings it is worthwhile assessing the effects of income on life satisfaction (for example David Blanchflower and Andrew Oswald 2004; Bruno Frey and Alois Stutzer 2000; Richard Easterlin 1995 and 2001; Daniel Hamermesh 2001; Kahneman, Daniel, et al. 2006), but the evidence is not as clear as might be expected. While in cross sections income and happiness tend to be positively correlated, an increase in income over time does not always raise happiness. The most plausible explanation for these findings is that aspiration levels increase with rising incomes, so that soon after an increase in income people tend to report their original happiness levels. In fact it is relative income (with reference to a peer group) rather than absolute levels that drive happiness (compare e.g. Richard Easterlin 1995; Andrew Clark and Andrew Oswald 1994 and 1996, VanPraag and Frijters 1999). For the UK David Blanchflower and Andrew Oswald (2004) show that happiness hardly changed between the early 1970s and late 1990s – a period of increasing prosperity. Nevertheless, once personal characteristics are controlled for, they are able to show that there is a positive time trend. Higher income is associated with higher happiness in their study, though coefficients are relatively small in comparison with other influences. For Germany Knut Gerlach and Gesine Stephan (1996) as well as Liliana Winkelmann and Rainer Winkelmann find a significant but small influence of income on happiness. Likewise Paul Frijters, John Haisken-De-New and Michael Shields (2004a and 2004b) report that household income has a positive influence on happiness but that at least in western Germany there is no time trend in the happiness variable.

Previous research has found direct effects of part-time work on well-being. Within the context of work intensification¹⁰ in European labor markets during the 1990s (Francis Green and Steven McIntosh 2001; Francis Green 2004; Francis Green and Nicholas Tsitsianis 2005) Manfred Garhammer 2002 finds that full-time workers tend to suffer more from time pressure than those who work part time while time pressure increases for those who have to take care of children. Other researchers have also looked at the relationship between hours worked and life satisfaction directly. Using the SOEP for

¹⁰ Francis Green (2004) looks at job satisfaction – which can differ from life-satisfaction– and reports for Britain that as work strain increased, the overall level of job satisfaction deteriorated. The fall in job satisfaction, however, is not explained by work intensification alone. As Green reports there has also been a fall in the extent of discretion that workers have in their daily tasks, which reduces job satisfaction as well.

Germany, Elke Holst and Eileen Trzcinski (2000) show that mothers' life satisfaction after birth is particularly high if they return to part-time employment. In effect after birth part-time employed women are happier than both non-employed women and those in full-time jobs (who are the ones who report the lowest levels of happiness).¹¹ A recent study by Berger (2009), however, found negative effects in a cross section of women also using German SOEP data. Two other studies on the topic have used the Australian HILDA survey: Matthew Gray, Lixia Qu, David Stanton and Ruth Weston (2004) focused on the effects of fathers' long working hours. Surprisingly, they find that although overall satisfaction with work hours decreases with the number of hours worked, long hours are not linked to a decrease in overall well-being. The second important Australian study asks whether part-time work makes the family happier (Alison Booth and Jan van Ours 2008a). The paper finds that part-time working women are happier than full time working women. It also shows that women are happier if their partners work full-time.

Booth and Van Ours (2008b) also used the BHPS for the UK and found similar results at least for job satisfaction, which is higher for women in part-time employment. Life satisfaction in contrast is unaffected by hours of work. Elena Bardasi and Marco Francesconi (2004) consider the effects of different types of atypical employment on the likelihood to report poor well-being for the BHPS 1991-2000. While part-time status is not found to be significant with respect to life satisfaction, men and women who work fewer hours are less likely to be unsatisfied with their job. Bardasi and Francesconi also ask whether the odds of moving from 'non-poor' to 'poor' life satisfaction are higher for those who enter different types of atypical employment. For women who move to part-time they show that two years after the move, the odds of moving to 'poor' life satisfaction increase. Given the mixed evidence, we reinvestigate the linkages between part-time and life satisfaction in the following, focusing on transitions between full-time, part-time and non-employment. The next section describes in detail our data sources, selections and estimation strategies.

¹¹ Indeed life satisfaction increases with birth and then soon drops again.

3. Estimation methods

3.1. Data

For the present study we use data from the German Socio-Economic Panel (SOEP) and the British Household Panel (BHPS). The SOEP is a representative, interdisciplinary and longitudinal survey of the German population (SOEP-Group, 2001). The panel was started in 1984, and has been repeated yearly since then. The information is collected from three different questionnaires: the household questionnaire, in which the head of the household provides information about the household as a whole, such as the housing situation, household formation and information about children under 16; the personal questionnaire, in which each individual in the household aged 16 or older is surveyed; and the biography questionnaire, which is completed by first-time respondents and includes questions about employment history, marital history, social origin and immigration history among other things. For the present study we combine information from the three questionnaires. In 2006 the survey covered a total of some 22,000 individuals belonging to about 12,500 households. The BHPS has a similar structure and logic to the SOEP; it began in 1991 and has been repeated yearly since then. In 1991, the first wave of the panel consisted of 5,500 households and 10,300 individuals; however extension samples have now resulted in a sample of 10,000 households by 2001. The dataset is nonetheless a little smaller than the SOEP. We select the SOEP waves from 1996 to 2006 which offer comparable information to the BHPS on life satisfaction. We select women aged between 20 and 59. Self-employed women are excluded and all women in our sample are married or living with a partner both at $t=0$ and $t=1$. We also exclude respondents who are not born in the UK in the analysis of the BHPS, and respondents with no German nationality in the analysis of the SOEP.¹² The panel component of both datasets allows us to analyze the impact of labour market transitions on changes in life satisfaction.

3.2. Models

Our principal aim is to establish if part-time work makes women happy. We test this through the following estimations.

¹² To be precise, Samples B: "Foreigners in the FRG"; D: "Immigrants"; and additionally G: "Oversampling of High Income".

Within-work transitions.

In this specification we select all women employees working full-time in period $t=0$ and compare women who remain full-time at $t=1$ with those who made a transition to a part-time job in period $t=1$. This allows us to identify whether women switching to a part-time job are more satisfied with their life than women remaining in full-time employment and is our main test. One of the strengths of this perspective is that potential heterogeneity in the part-time work-force relative to the full-time workforce is controlled for by focusing on a sub-group of workers that share the same labor force category in $t=0$.¹³ We repeat this test in the 'other direction', by focusing on part-time workers at $t=0$ and assessing shifts in life satisfaction between part-time workers who remained in part-time jobs at $t=1$ and those who left part-time work to obtain full-time jobs at $t=1$. Our analysis therefore assesses pooled two-year transitions across labour force categories.

Table 1 shows the number of switches taking place as well as the mean number of children for each sub-group. In our analysis of transitions between employment statuses we further reduce the problem of unobservables by excluding women that leave the labor market, as this group is too heterogeneous (those who are in education, on maternity leave, or unemployed).

Table 1. Mobility matrix

	BHPS % of women reporting this change	BHPS % of women who had a child between t-1 and t	SOEP Percentage reporting this change	SOEP % of women who had a child between t-1 and t
Full-time to full-time	42.04	4.02	38.41	2.33
Full-time to part-time	3.04	18.68	2.72	1.56
Part-time to part-time	28.51	3.13	22.89	1.26
Part-time to full-time	3.38	2.04	2.87	2.13
Inactivity to inactivity	19.20	8.08	29.04	2.96
Inactivity to full-time	0.85	4.21	1.69	2.23
Inactivity to part-time	2.97	2.52	2.37	4.17
Total	22,928		21,189	

¹³ In order to test the consistency of our results we also run a model where all women are included (independently from their labor force category) and all possible transitions are considered by the corresponding dummy definitions. The results of this model are reported in section 4.

Still, heterogeneity poses a potential problem as answers to life satisfaction questions may be influenced by unobserved personality characteristics. These unobservables are potentially correlated with the probability to report happiness and other covariates. In order to deal with this problem, we (i) apply a change model assessing the effect of a change in working hours on the *changes* in life satisfaction using an OLS specification:

$$\Delta \text{LIFESAT}_{it} = \beta_0 + \beta_1 \text{PT}_{it} + \beta_2 \mathbf{X}_{it} + v_{it} \quad (1)$$

and (ii) we run tests (not shown) of whether our results are consistent under a random effects specification:

$$\Delta \text{LIFESAT}_{it} = \beta_0 + \beta_1 \text{PT}_{it} + \beta_2 \mathbf{X}_{it} + \varepsilon_i + \varepsilon_{it} \quad (2)$$

The dependent variable is measured using self-reported changes in life satisfaction for individual i between two time points t and $t+1$. Where v_{it} is the composite error term $\varepsilon_i + \varepsilon_{it}$. The random effects specification controls for unobserved individual heterogeneity ε_i . As described above, we compressed the German coding of the satisfaction variable to match the BHPS seven-item scale. So the change in life satisfaction has thirteen different possible values from -6 to +6, allowing us to use OLS estimation. Tests show that we have enough variation on the dependent variable to follow this strategy.¹⁴

This change is regressed on a constant, a set of control variables collected in matrix \mathbf{X} and a dummy variable indicating whether the person has switched to a part-time position (PT) with women who have remained in full-time employment in the reference category. In \mathbf{X} we include socioeconomic control variables like age, education, number of kids, and job characteristics (see Appendix Table A.1). We also control for life satisfaction in the base year t , because obviously it is more difficult to move upwards if you have already got a high level of life satisfaction in the base year. Finally, we control for the occurrence of special life events: marriage, children leaving the family home and the birth of a child. We also tested whether a broader range of life events were occurring in the data that might be confounding our principal covariates. In these tests we introduced divorce/separation and family bereavement to each model to no

¹⁴ In the BHPS, 48% of the sample displayed changes in their life satisfaction with the proportion exhibiting increases similar in size to those exhibiting decreases. In the SOEP 60% displayed changes and in this case the proportion exhibiting increases is also similar to the proportion exhibiting decreases.

effect.¹⁵ We also control for changes in occupation and firm size. Occupational changes are defined as follows. We rank the occupational groupings (using the ISCO 88 international classification) according to the mean hourly wages of each occupation. Then any occupational change which implies a decrease in rank is classified as a downward occupational shift and vice versa.

The model is tested for differences between workers who appear to change their working-hours and remain in the same job, with those who appear to change jobs to obtain a change in their working-time. As the BHPS does not reveal within years whether a job change is to a different employer or to a different job with the same employer, we are only able to identify if a change in working-time is to a different job rather than to a different firm. These two models are also run on part-time workers' transitions to full-time employment.

Non employment to part-time and full-time employment

Our final test focuses on non-employed women and asks whether their life satisfaction changes when they enter the labor market and whether there are significant differences between women entering full-time or part-time jobs. In this analysis we select on women out of the labor market (those who are unemployed or inactive) and run the following regression:

$$\Delta \text{LIFESAT}_{it} = \beta_0 + \beta_1 \text{PT}_{it} + \beta_2 \text{FT}_{it} + \beta_3 \text{X}_{it} + \varepsilon_{it} \quad (3)$$

Just like in our first model the change is regressed on a constant, a set of control variables collected in matrix X , a dummy variable indicating whether the person has switched to a part-time position (PT) and additionally a dummy indicating whether the person has switched to a full-time position (FT). Women who are still out of work in family care make up the reference category. In this specification, we are unable to include job related change controls, such as occupational or firm size change, as all respondents were inactive at $t=0$. The following section presents our results which control for clustering on id. Random effects specifications yielded similar results.

¹⁵ These results are available from the authors on request.

4. Empirical analysis

4.1. Moving from full-time to part-time – Does it make women happier?

We know by now that part-time jobs are on average less well-paid, offer less promotion possibilities and tend to be in less skilled occupations. At the same time many women working long hours may like to work less, especially if they have young children (and can depend on a partners' wage to off-set their decrease in earnings).

Table 2. Changes in life satisfaction when moving from FT to PT (Model I)

	UK	Germany
<i>(Reference: full-time t and t+1)</i>		
Full-time to part-time	0.115** (0.059)	0.113** (0.057)
Life satisfaction at t=0	-0.390*** (0.015)	-0.408*** (0.014)
<i>(Reference 20-25 yrs)</i>		
26-35 yrs	0.021 (0.048)	0.030 (0.065)
36-45 yrs	-0.045 (0.049)	-0.134** (0.065)
46-60 yrs	-0.046 (0.050)	-0.079 (0.064)
<i>(Reference basic education)</i>		
Secondary education	-0.053* (0.031)	-0.103 (0.056)
Tertiary education	-0.044* (0.026)	-0.070 (0.060)
Change household income	-0.035 (0.038)	0.298*** (0.065)
<i>(Reference CH_Occup_Stat_1)</i>		
Upward move	-0.008 (0.039)	0.082 (0.070)
Downward move	-0.023 (0.031)	0.003 (0.053)
Change in health status	0.094*** (0.017)	0.330*** (0.022)
Married	0.078 (0.054)	0.142* (0.081)
Number of children at 0	-0.056** (0.018)	-0.019 (0.022)
<i>(Reference: No change in N of children)</i>		
Increase in children	-0.109 (0.069)	0.375*** (0.090)
Decrease in children	-0.049 (0.110)	-0.026 (0.060)
Constant	2.066 (0.109)	2.185*** (0.130)
N	5,914	7,787
R ²	0.198	0.245

Note: Dependent Variable: Changes in life satisfaction; OLS Estimations, only women who were employed FT in t=0; robust standard errors in parentheses; year dummies included;

*p<0.1, **p<0.05, ***p<0.001.

From Table 2 we can see that moving from full-time to part-time does indeed make women happier. In both countries the coefficient on the part-time dummy is positive and significant.

This result is different to what Booth and Van Ours (2008a) find in cross sectional studies on life satisfaction, where part-time work was only found to have significant effects on job-satisfaction but not life-satisfaction. This could be the result of different selections. While Booth and Van Ours compare all workers at a certain point in time we are just looking at switchers and while we can only speculate, it is likely that a high percentage of those switches are voluntary, which might explain the positive result.

Before discussing our further covariates, let's turn to Table 3 where we have separated the group of switchers into those actually switching to another job (within or between firms) and those staying in the same job and reduced their hours of work. The results are indeed noteworthy: only those who stay in the same job were found to feel happier by reducing hours of work.

Table 3. Changes in life satisfaction controlling for job changes (Model II)

	UK	Germany
<i>(Reference Full-time t and t+1)</i>		
Part-time with job switch	0.085 (0.083)	-0.016 (0.207)
Part-time without job switch	0.138* (0.080)	0.130** (0.059)
Life satisfaction at t=0	-0.392*** (0.015)	-0.409*** (0.013)
<i>(Reference 20-25 yrs)</i>		
26-35 yrs	0.012 (0.049)	0.031 (0.066)
36-45 yrs	-0.051 (0.050)	-0.136** (0.066)
46-60 yrs	-0.054 (0.051)	-0.077 (0.064)
<i>(Reference basic education)</i>		
Secondary education	-0.053* (0.031)	-0.107* (0.057)
Tertiary education	-0.042 (0.026)	-0.072 (0.060)
Change household income	-0.038 (0.038)	0.292*** (0.065)
<i>(Reference CH_Occup_Stat_1)</i>		
Upward move	-0.010 (0.039)	0.082 (0.070)
Downward move	-0.023 (0.031)	-0.003 (0.054)
Change in health status	0.095*** (0.017)	0.331*** (0.023)
Married	0.077 (0.054)	0.135* (0.079)
Number of children at 0	-0.057** (0.018)	-0.018 (0.023)
<i>(Reference: no change in N of children)</i>		
Increase in children	-0.108 (0.069)	0.373*** (0.090)
Decrease in children	-0.018 (0.113)	-0.030 (0.060)
<i>(Reference: Firmsize stable)</i>		
Firmsize increase	0.031 (0.028)	0.073 (0.088)
Firmsize decrease	-0.001 (0.030)	0.066 (0.068)
Constant	2.074*** (0.109)	2.142*** (0.147)
N	5,937	7,736
R ²	0.204	0.246

Note: see Table 2.

This finding supports our expectation that workers who can decrease their working-hours whilst remaining in their previous positions will display the greatest gains. While workers who were unable to decrease their working-hours in their previous post and (we assume) had to leave their workplaces involuntarily to find a part-time job will show considerably lower gains. It is worth underlining the fact that this effect remains significant in a model where we tried to control for the expected risk of occupational downgrading in part-time jobs (see Gregory and Connolly 2008b) and is of course significant in both countries. We would have expected a negative effect on life-satisfaction for women who appear to have occupationally downgraded, though the variable is clearly not significant. Most probably our measures are too broad to adequately capture such a dynamic. We also tested whether changes in the firm size have any influence and find that moving to a larger or smaller firm has no significant effect in either Germany or for the UK.

We also controlled for the effect of personal characteristics and life events on life satisfaction given their significance in previous research on *levels* of happiness, though our analysis looks at changes in satisfaction. We control for age using three dummies.¹⁶ While these are not significant in the UK, Germans above 35 are less likely to experience improvements in life satisfaction. This is less in line with the relatively recent literature on a U-shaped age-lifesatisfaction relationship discussed in Section 2 but rather corresponds to findings by Liliane Winkelmann and Rainer Winkelmann (1998). We also tried interacting age with the part-time dummy, but results were not significant and are therefore not reported.

We control for education levels though it is rarely significant in the analyses. We defined three education categories following the International Standard Classification of Education (ISCED) of the UNESCO for comparability purposes. In the first education category we group the ISCED categories 0 to 2 (pre-primary education, primary education or first stage of basic education and lower secondary or second stage of basic education), in the second education category we group the ISCED categories 3 to 5 ((upper) secondary education, post-secondary non-tertiary education and first stage of tertiary education). Finally, in the third education category we include women with second stage of tertiary education. In our regressions the reference category is the first category (low education) and the results of tables 1 to 4 show that in the UK there

¹⁶ The reference category is the age group 20-25, and the age groups included in the regression are 26-35, 36-45 and 46-59.

is a tendency for women with higher levels of education to be less likely to experience improvements in life satisfaction.

Amongst life events the variable that identifies if the respondent got married between both time periods has a noticeably strong and positive effect in most equations for both countries. This is also in line with the literature that shows that life events are often more important than income at predicting life satisfaction (compare Section 2 and e.g. Blanchflower and Oswald 2004). Nonetheless, our results find very strong effects in Germany for household income. Household income is included in our model in its change form: reflecting the difference in logged household income between $t=0$ and $t=1$. We decided to use household income rather than personal income as this is the variable determining the household's level of consumption and most probably women's willingness to accept reduced hour employment. Results on this variable are mixed. In all specifications we estimated we find change in household income to be positively correlated with life satisfaction in Germany but not in the UK.

Finally, there are strong differences in the impact of both levels of children in the home as well as recent birth of children in the home. In the UK, the number of children in the home has a negative effect on changes in life-satisfaction, whereas there is no similar effect in Germany. In Germany, however, women who have recently given birth show a strong positive change in their life satisfaction levels. As we know that there is a strong relationship between the presence of young children in the home and a reduction in working-hours we tried to interact the birth of a child with making a transition to part-time employment however this interaction term was insignificant in both Germany and the UK.

The next group of models performs the same tests for women in part-time jobs, assessing the difference in the satisfaction levels for those who remain in part-time work compared with those who leave to obtain a full-time job (see Table 4). We do not find a concomitant decrease in life satisfaction for part-time workers who obtain a full-time job; so it would appear that it is not possible to conclude that there is something problematic with full-time jobs per se (something that might be concluded from the previous models).

Table 4. Changes in life satisfaction when moving from PT to FT (Model III)

	UK	Germany
<i>(Reference: Part-time t and t+1)</i>		
Part-time to full-time	-0.002 (0.048)	0.000 (0.055)
Life satisfaction at t=0	-0.357*** (0.018)	-0.406*** (0.017)
<i>(Reference 20-25 yrs)</i>		
26-35 yrs	0.100 (0.114)	0.139 (0.331)
36-45 yrs	0.073 (0.113)	0.067 (0.330)
46-60 yrs	0.110 (0.115)	0.161 (0.330)
<i>(Reference basic education)</i>		
Secondary education	0.035 (0.043)	0.034 (0.047)
Tertiary education	0.044 (0.035)	0.120* (0.058)
Change household income	0.031 (0.035)	0.240** (0.089)
<i>(Reference: CH_Occup_Stat_1)</i>		
Upward move	-0.052 (0.052)	0.005 (0.098)
Downward move	0.008 (0.041)	-0.050 (0.078)
Change in health status	0.093*** (0.019)	0.238*** (0.026)
Married	0.250** (0.130)	-0.052 (0.250)
Number of children at 0	0.011 (0.018)	0.030 (0.023)
<i>(Reference: no change in children)</i>		
More children	0.139** (0.071)	0.114 (0.153)
Less children	-0.174* (0.098)	-0.041 (0.066)
Constant	1.714*** (0.155)	2.088** (0.344)
N	4,122	4,756
R ²	0.193	0.228

Note: Dependent Variable: Changes in life satisfaction; OLS Estimations, only women who were employed PT in t=0; robust standard errors in parentheses; year dummies included; *p<0.1, **p<0.05, ***p<0.001.

We performed additional tests to see if there were differences between part-time workers who were able to increase their working-hours to full-time in their previous

posts and those that left to find a full-time post elsewhere, but these were also not significant and so are not shown. We had expected that a transition to a full-time job would lead to an increase in life-satisfaction if the transition was voluntary particularly as an increase in working-time should lead to an increase in both hourly and monthly earnings and potentially even lead to jobs with greater skill levels and occupational fit. Either this is not the case or the increased stress from working full-time counteracts all the positive effects from moving to full-time employment. It is also worth noting, nonetheless, that the variables that measure children in the household vary for this sub-population of working women. Among those who predominantly work part-time, we note a positive effect in the levels of children in Germany (where there previously was none) and also note that the birth of a child has positive rather than negative effects on life satisfaction in the UK. We again tried interaction terms of a transition to full-time employment and the recent birth of a child, but the coefficient was insignificant so not included in the final model.

As a final test of our main finding, table 5 presents the effects of a transition to employment on happiness, with a distinction made between part-time and full-time hours. We find strong positive effects of transitions to employment for both countries. The impact of moving to a part-time job is not as great as that associated with obtaining a full-time job, however. Not only are the coefficients for part-time smaller, they are also insignificant for the UK model. These findings again provide an important context to our findings in tables 1 and 2. The positive effect of part-time employment on women's happiness underscore how it is not part-time employment per se, that makes (all) women happier, but rather the decrease in working-hours within a previously full-time post. While the model covariates generally behave in the expected manner in table 5, there are some differences. Notably, the variables measuring children again vary.

As the size of the coefficients measuring children are quite high when significant, and as the results seem to vary considerably for the different sub-groups of the market analyzed, we conducted a final test examining the effect of interaction terms of an increase or decrease in children by each labour force transition. We found no strong interaction terms for Germany, though did find a very large one for the UK. In the UK there was a strong (-.32) and significant (at the .001 level) effect of having children and remaining in full-time employment. For mothers of newborns who appear unable or unwilling to decrease their hours or leave their full-time posts we find a strong decrease in life satisfaction; an effect that operates in entirely the opposite direction

for mothers of newborns in any other labour force category. This finding suggests that we should defend recent policy developments that give employees greater access to flexible working in their jobs.

Table 5. Changes in life satisfaction when leaving non-employment (Model IV)

	UK	Germany
<i>(Reference: inactive at t and t+1)</i>		
Inactive to Part-time	0.046 (0.066)	0.183** (0.060)
Inactive to Full-time	0.396*** (0.143)	0.253** (0.077)
Life satisfaction at t=0	-0.388*** (0.021)	-0.379*** (0.012)
<i>(Reference 20-25 yrs)</i>		
26-35 yrs	0.043 (0.070)	0.014 (0.076)
36-45 yrs	0.047 (0.074)	-0.037 (0.079)
46-60 yrs	0.256*** (0.079)	-0.001 (0.082)
<i>(Reference basic education)</i>		
Secondary education	-0.077 (0.070)	0.048 (0.044)
Tertiary education	-0.153*** (0.052)	0.073 (0.061)
Change household income	-0.032 (0.031)	0.221** (0.069)
Change in health status	0.101*** (0.028)	0.280*** (0.024)
Married	0.529*** (0.167)	0.004 (0.191)
Number of children (0-high)	0.034 (0.025)	0.078*** (0.021)
<i>(Reference: no change in N of children)</i>		
Increase in children	0.017 (0.084)	0.304*** (0.085)
Decrease in children	-0.120 (0.131)	-0.151** (0.075)
Constant	1.913 (0.154)	1.608*** (0.112)
N	4,122	7,090
R ²	0.212	0.232

Note: Dependent Variable: Changes in life satisfaction; OLS Estimations, only women who were not employed in t=0; robust standard errors in parentheses; year dummies included; *p<0.1, **p<0.05, ***p<0.001.

5. Conclusions

Our analysis reveals that around 73% of married or cohabiting women in Germany and 38% of married or cohabiting women in the UK would prefer different working-hours than they currently have. From an economic point of view this is a cause for concern if individual welfare is significantly reduced by these discrepancies. Obviously we are not able to measure welfare associated with different hours of work directly, but self-reported life-satisfaction can be a good proxy for the utility derived from different jobs.

This paper therefore looked at working women in partnerships and tested whether changes in working hours influenced life-satisfaction significantly. We selected on women in partnerships as we wanted to test the impact of children on working-motherhood, and lone parents face unique constraints in their market attachment (Jane Lewis 1997). Theoretically, the association between hours of work and life satisfaction could go in either of two opposing directions. On the one hand a reduction of working hours may help to balance life and work leading to an increase in well-being while on the other, part-time employment's association with lower earnings and inferior working conditions could lead to a decrease in life satisfaction. We found that in both countries under consideration, the UK and Germany, women who switch from full-time to part-time employment report increases in life satisfaction, indicating that part-time work makes life easier for those women. This is especially true of women who decrease their working-hours whilst remaining with their employer in the same job. Although our data set does not include detailed information on the reasons for reducing hours of work, we interpret this finding as evidence that a majority of working hour reductions within the same job are voluntary *given institutional settings*.

Indeed, institutions are important to consider as both countries have many policies in place that tend to reduce incentives for women in partnerships to work in paid employment, like limited child care facilities. Interestingly we found changes in life satisfaction to be strongly influenced by changes in the number of children the women had. The birth of a child, in most models, increased working women's life satisfaction considerably. This was found for Germany in models one, two and four, and for the UK in model three. There was also an association between the number of children in the household overall; women with many children tended to exhibit positive changes in life-satisfaction if they had more children in Germany (in models three and four). While the presence of and birth of children in Germany always had positive effects, in the UK there were instances where children had negative effects on life satisfaction (model I).

These diverging effects of children on working motherhood, illustrate the ongoing importance of the work-life balance agenda particularly in the UK.

As we expected decreases in working hours to be predominantly associated with the birth of a child we estimated a series of interaction terms. However, while these interaction terms were often not significant, in some cases it did appear that the positive effects of working-time on well-being were confounded with the impact of children on well-being. In the UK we found the impact of a new born on mother's well-being to be negative and significant if she remained in full-time employment. Nonetheless, women's life satisfaction was not found to be purely driven by the presence or absence of children; nor are women's decisions to change their working hours driven purely by their childcare obligations. Other factors like limited time resources for out of work activities are also potentially driving the decision.

Further results show that switching to a new part-time job (potentially with a new employer) from a full-time position does not affect life-satisfaction in any way. The potential positive effects on work-life balance seem to be cancelled out by either the problem of occupational downgrading or otherwise increased work stress when starting a new job. Similarly, women increasing their hours of work from part-time to full-time don't report any significant changes in life satisfaction. Finally, women leaving non-employment for work are happier if they find a full-time position. Taken together our results do not show that either option – full-time or part-time – is always superior under any circumstances. Our results indicate that social policies should not unilaterally favor one of the two work models but rather design policies that give women and men a real choice of whether they would like to work full-time or not.

6. Literature

- Akerlof, George A. and Rachel E. Kranton. 2000. "Economics and Identity." *Quarterly Journal of Economics*
- Bardasi Elena and Janet C. Gornick. 2008. "Working for Less? Women's Part-time Wage Penalties across Countries." *Feminist Economics* 14 (1): 37-72.
- Bardasi, Elena and Marco Francesconi. 2004. "The Impact of Atypical Employment on Individual Wellbeing: Evidence from a Panel of British Workers." *Social Science and Medicine* 58 (9): 1671-1688.
- Becker, Gary S. 1965. "A Theory of the Allocation of Time." *The Economic Journal* 75 (299): 493-517.
- Beckmann, Petra and Birgit Kempf. 1996. "Arbeitszeit und Arbeitszeitwünsche von Frauen in West- und Ostdeutschland." *Mitteilungen aus der Arbeitsmarkt- und Berufsforschung* 29 (3): 388-408.
- Berger, Eva M. 2009. "Maternal Employment and Happiness: The Effect of Non-Participation and Part-Time", Deutsches Institut für Wirtschaftsforschung, DIW Discussion Paper 890.
- Blanchflower, David G. and Andrew J. Oswald. 2004. "Wellbeing over time in Britain and the USA." *Journal of Public Economics* 88(7-8): 1359-1386.
- Blanchflower, David G. and Andrew J. Oswald. 2008. "Is Well-Being U-Shaped over the Life Cycle?" *Social Science & Medicine* 66 (8): 1733-1749.
- Blanck, Rebecca M. 1988. "Simultaneously Modelling the Supply of Weeks and Hours of Work Among Female Household Heads." *Journal of Labor Economics* 6(2):177-204.
- Blanck, Rebecca M. 1994. "The Dynamics of Part-time Work." NBER Working Paper No 4911.
- Blundell, Richard and Thomas MaCurdy. 1999. "Labor supply: a review of alternative approaches." In *Handbook of Labor Economics Vol. 3A*, pp. 1559-1695. Orley Ashenfelter and David Card, eds. Amsterdam and New York: North-Holland.
- Böheim, R. and Taylor, M (2004) 'Actual and Preferred Working Hours', *British Journal of Industrial Relations*, 42 (1):149-166.
- Booth, Alison L. and Jan C. van Ours. 2008a. "Job Satisfaction and Family Happiness: The Part-Time Work Puzzle." *The Economic Journal* 118 (526): F77-F99.
- Booth, Alison L. and Jan C. van Ours. 2008b. "Hours of Work and Gender Identity: Does Part-Time Work Make the Family Happier?". *Economica*, forthcoming.

- Bothfeld, Silke, Ute Klammer, Christina Klenner, Simone Leiber, Anke Thiel, and Astrid Ziegler (eds.). 2005. *WSI FrauenDatenReport*. Berlin: edition sigma.
- Carroll, Nick. 2007. "Unemployment and Psychological Well-Being." *Economic Record* 83 (262): 287 – 302.
- Clark, Andrew E. and Andrew J. Oswald. 1994. "Unhappiness and Unemployment". *The Economic Journal* 104 (May): 648-659.
- Clark, Andrew E and Andrew J. Oswald. 1996. "Satisfaction and Comparison Income" *Journal of Public Economics* 61 (3): 359-381.
- Clark, Andrew, Andrew Oswald, and Peter Warr. 1996. "Is Job Satisfaction U-shaped in Age?" *Journal of Occupational and Organizational Psychology* 69 (Spring): 57-81.
- Di Tella, Raffael, Robert J. MacCulloch, and Andrew J. Oswald. 2001. " Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness." *American Economic Review* 91(1): 335-341.
- Diener, Ed and Eunkook M. Suh. 1999. "National Differences in Subjective Well-Being." in *Well-Being: The Foundations of Hedonic Psychology*. Daniel Kahneman, Ed Diener and N. Schwarz, eds. New York: Russell-Sage: 434-450.
- Easterlin, Richard A. 1995. 'Will raising the incomes of all increase the happiness of all?' *Journal of Economic Behaviour and Organization* 27(1): 35-48.
- Easterlin, Richard A. 2001. "Income and Happiness: Towards a Unified Theory." *The Economic Journal* 111: 465-484.
- Easterlin, Richard A. 2006. " Life Cycle Happiness and its Sources: Intersections of Psychology, Economics, and Demography." *Journal of Economic Psychology* 27 (4): 463-482
- Ermisch, John F. and Robert E. Wright. 1992. "Wage Offers and Full-time and Part-time Employment by British Women." *Journal of Human Resources* 28 (1): 111-133.
- Francesconi, Marco and Amanda Gosling. 2005. "Career Paths of Part-Time Workers." *EOC Working Paper* 19. Manchester: Equal Opportunities Commission.
- Frey, Bruno S. and Alois Stutzer (2000). "Happiness, Economy, and Institutions." *The Economic Journal* 110 (October): 918-938.
- Frey, Bruno S. and Alois Stutzer (2002). *Happiness and Economics: How the Economy and Institutions Affect Human Well-Being*. Princeton: Princeton University Press.
- Frijters, Paul, John P. Haisken-DeNew, and Michael S. Shields. 2004a. "Investigating the Patterns and Determinants of Life Satisfaction in Germany Following Reunification." *Journal of Human Resources* 39 (3): 649-674.

- Frijters, Paul, John P. Haisken-DeNew, and Michael S. Shields. 2004b. "Money Does Matter! Evidence from Increasing Real Income and Life Satisfaction in East Germany Following Reunification." *American Economic Review* 94(3): 730-740.
- Gash, V. (2008) Preference or Constraint? Part-time Workers' Transitions in Denmark, France and the United-Kingdom. *Work, Employment and Society* 22.4 - December 2008
- Gash, V. (forthcoming) "*Sacrificing their Careers for their Families? An Analysis of the Family Pay Penalty in Europe*", Social Indicators Research – Special Issue. 2009.
- Gerdtham, Ulf-G and Magnus Johannesson. 2001. "The Relationship Between Happiness, Health, and Socio-Economic Factors: Results Based on Swedish Microdata." *Journal of Socio-Economics* 30 (6): 553-557.
- Gerlach, Knut and Gesine Stephan. 1998. "A Paper on Unhappiness and Unemployment in Germany." *Economics Letters* 52 (3):325–30.
- Goffman, E. (1959) *The Presentation of Self in Everyday Life*, Doubleday: New York
- Gray, Matthew, Lixia Qu, David Stanton and Ruth Weston. 2004. "Long Work Hours and the Wellbeing of Fathers and their Families." *Australian Journal of Labor Economics* 7 (2): 255-273.
- Green, Francis. 2004. "Work Intensification, Discretion, and the Decline in Well-Being at Work." *Eastern Economic Journal*, 30(4): 615-625.
- Green, Francis, and Steven McIntosh. 2001. "The Intensification of Work in Europe." *Labour Economics*, May: 291-308.
- Green, Francis and Nicholas Tsitsianis. 2005. "An Investigation of National Trends in Job Satisfaction in Britain and Germany." *British Journal of Industrial Relations* 43 (3): 401-429.
- Gregory, Mary and Sara Connolly. 2008a. "The Price of Reconciliation: Part-Time Work, Families and Women's Satisfaction." *The Economic Journal* 118 (526): F1-F7.
- Gregory, Mary and Sara Connolly. 2008b. "Moving down: Women's Part-time Work and Occupational Change in Britain 1991–2001." *The Economic Journal* 118 (526): F52-F76.
- Gustafsson, Siv, Eiko Kenjoh, and Cécile Wetzels. 2001. "Does Part-Time and Intermittent Work During Early Motherhood Lead to Regular Work Later?" *Vierteljahreshefte zur Wirtschaftsforschung* 70 (1): 15-23.
- Hajo, Bernd and Wolfgang Seifert. 2003. "Subjective Economic Well-Being in Eastern Europe." *Journal of Economic Psychology* 24: 329-348.
- Hamermesh, Daniel S. 2001. "The Changing Distribution of Job Satisfaction." *Journal of Human Resources* 36 (1): 1-30.

- Holst, Elke and Eileen Trzcinski. 2000. "High Satisfaction Among Mothers Who Work Part-time." *Economic Bulletin* 40 (10): 327-332.
- Holst, Elke. 2009. "Full-time Workers Want to Work Fewer Hours, Part-Time Workers Want to Work Longer Hours." DIW Weekly Report 5 (19, August)
- Jaumotte, Florence. 2003 "Female Labour Force Participation: Past Trends and Main Determinants in OECD Countries", *OECD Economics Department Working Papers* 376, Paris: OECD Publishing.
- Kahnemann, Daniel and Alan B. Krueger. 2006. "Developments in the Measurement of Subjective Well-Being." *Journal of Economic Perspectives*, 20(1): 3-24.
- Kenjoh, E. 2005. New Mothers' Employment and Public Policy in the UK, Germany, the Netherlands, Sweden, and Japan. *Labour* 19:5-49.
- Killingsworth, Mark and James Heckman. 1987. "Female labor supply: A survey." In *Handbook of Labor Economics Vol. 1*, pp 103-204. Orley Ashenfelter and Richard Layard, eds. Amsterdam and New York: North Holland.
- Layard, Richard. 2005. *Happiness: lessons form a New Science*. London: Penguin Books.
- Lewis, Jane E. (1997) Lone mothers in European welfare regimes: shifting policy logics , Published by Jessica Kingsley Publishers.
- Long, J.E. and E.B. Jones. 1981. "Married women in Part-time Employment." *Industrial and Labor Relations Review* 34: 314-325.
- Manning, Alan and Barbara Petrongolo. 2008. "The Part-Time Pay Penalty for Women in Britain." *The Economic Journal* 118 (526): F28-F51.
- McRae, Susan (2003) 'Constraints and Choices in Mothers' Employment Careers: A Consideration of Hakim's Preference Theory', *British Journal of Sociology*, 54(3): 317-338.
- OECD. 1999. "Recent Labour Market Developments and Prospects – Special Focus on the Quality of Part-time Jobs." *OECD Economic Outlook* 65 (June): 14-46.
- OECD. 2002. "Women at Work: Who are They and how are They Faring?" *OECD Economic Outlook* 68 (June): 62-123.
- OECD. 2008. FTPT Employment Based on Common Definition.
<http://webnet.oecd.org/wbos/index.aspx>. Data access 11/21/2008.
- Olsen, Wendy and Walby, Sylvia. 2004. "Modelling Gender Pay Gaps", Equal Opportunities Commission Working Paper, No. 17, Winter 2004.
- Oreopoulos, Philip. 2007. "Do Dropouts Drop Out Too Soon? Evidence from Changes in School-Leaving Laws." *Journal of Public Economics* 91 (11-12): 2213-2229.

- Paul, Gillian. 2008. "Children and Women's Hours of Work." *The Economic Journal* 118 (526): F8-F27.
- Pencavel, John. 1987. "Labor supply of men: A survey." In *Handbook of Labor Economics Vol. 1*, pp. 3-102. Orley Ashenfelter and Richard Layard, eds. Amsterdam and New York: North Holland.
- Pfeiffer, Christian. 2007. "Eine theoretische und empirische Analyse der betrieblichen Determinanten von Teilzeitarbeit, Mini- und Midi-Jobs." *Zeitschrift für Arbeitsmarktforschung* 40 (1): 65-76.
- SOEP Group (2001): The German Socio-Economic Panel (GSOEP) after more than 15 years - Overview. In: Elke Holst, Dean R. Lillard und Thomas A. DiPrete (Hg.): Proceedings of the 2000 Fourth International Conference of German Socio-Economic Panel Study Users (GSOEP2000), Vierteljahrshefte zur Wirtschaftsforschung, 70 (1): 7-14.
- Theodossiou, Ioannis. 1998. "The Effects of Low-Pay and Unemployment on Psychological Well-Being: A Logistic Regression Approach." *Journal of Health Economics* 18 (1):85-104.
- Veenhoven, Ruut. 2002. "Why Social Policy Needs Subjective Indicators." *Social Indicators Research* 58(1-3): 33-45.
- Winkelmann, Liliana and Rainer Winkelmann. 1998. "Why Are the Unemployed so Unhappy? Evidence from Panel Data." *Economica* 65:1-17.
- Wolf, Elke. 1998. "Do Hours Restrictions Matter?" Zentrum für Europäische Wirtschaftsforschung Mannheim (ZEW) Discussion Paper 98-44.
- Wolf, Elke. 2002. "Lower wage rates for fewer hours? A simultaneous wage-hours model for Germany." *Labour Economics* 9 (5): 643-663.

Appendix.

A. 1. Means and Proportions of the Samples Analyzed

	FT-FT / FT-PT Sample		PT-PT/ PT-FT Sample		Inactive-Inactive/ Inactive- FT-Inactive - PT Sample	
	Germany	UK	Germany	UK	Germany	UK
Variables measured at t=0						
Life Satisfaction (scale 1-7)	4.975	5.347	5.234	5.361	4.816	5.209
20-25yrs	4.29%	6.22%	0.50%	1.94%	3.57%	7.62%
26-35yrs	23.31%	28.27%	17.67%	20.65%	28.41%	31.00%
36-45yrs	35.95%	30.33%	44.27%	38.33%	30.44%	30.11%
46-60yrs	36.45%	35.17%	37.56%	39.08%	37.58%	31.26%
Highest level of education ISCED 0-2	7.22%	26.56%	12.36%	14.24%	17.25%	11.86%
ISCED 3-5	63.68%	22.07%	70.77%	16.76%	72.46%	12.71%
ISCED 6+	29.10%	51.37%	16.87%	69.00%	10.29%	75.44%
number of children in household	0.329	0.371	0.724	0.819	1.049	1.350
Change Variables (between t=0 and t=1)						
Change in working-time	6.62%	5.29%	11.15%	8.30%		
Change to FT					4.65%	10.94%
Change to PT					6.53%	1.67%
Change in log of household income	-0.073	0.045	-0.074	0.049	-0.060	0.073
Downward occupational change	7.70%	16.82%	6.43%	12.91%		
Upward Occupational Change	8.06%	19.63%	6.26%	16.86%		
No occupational change	84.24%	63.54%	87.31%	70.23%		
Change in health (1=very good; 5=bad)	-0.041	-0.033	-0.041	-0.006	-0.024	0.008
No change in N of children	92.77%	95.21%	90.91%	95.20%	92.37%	91.86%
Increase in children	2.21%	3.55%	1.37%	3.15%	3.00%	6.54%
Decrease in children	4.96%	1.23%	7.72%	1.65%	4.63%	1.61%
Newly married	2.79%	3.40%	0.58%	0.90%	1.12%	1.15%

A.2. TRANSITIONS with distinction by job change*

		BHPS	SOEP
Full-time to full-time	no job change	32.63	36.28
	job change	9.57	2.12
Full-time to part-time	no job change	1.78	2.48
	job change	1.28	0.24
Part-time to part-time	no job change	24.03	21.87
	job change	4.06	1.02
Full-time to full-time	no job change	1.84	2.49
	job change	1.55	0.39
Inactivity to inactivity		19.28	29.04
Inactivity to full-time		0.86	1.69
Inactivity to part-time		2.55	2.37
Total		22,828	21,189

Note: Percentages reporting the respective changes.

*In the BHPS the interviewer asks respondents if their current job was different to the job they held in the previous year, with changes including 'getting promoted or starting a different job with the same employer.

A.3. All Transitions Model

	UK						Germany					
	M1		M2(interactions)		M3(interactions)		M1		M2(interactions)		M3(interactions)	
	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
<i>(Reference: full-time t and t+1)</i>												
Full-time to part-time	0.10	0.05	0.08	0.15	0.07	0.17	0.11	0.06	0.11	0.05	0.11	0.05
Part-time to part-time	0.03	0.08	0.02	0.19	0.02	0.22	0.15	0.00	0.15	0.00	0.15	0.00
Part-time to full-time	-0.03	0.53	-0.03	0.52	-0.04	0.41	0.14	0.01	0.14	0.01	0.15	0.01
Life satisfaction at t=0	-0.37	0.00	-0.37	0.00	-0.37	0.00	-0.41	0.00	-0.41	0.00	-0.41	0.00
26-35 yrs	0.03	0.45	0.03	0.41	0.03	0.41	0.01	0.86	0.01	0.87	0.01	0.88
36-45 yrs	-0.02	0.71	-0.01	0.77	-0.01	0.78	-0.13	0.05	-0.13	0.04	-0.13	0.04
46-60 yrs	0.00	0.98	0.00	0.95	0.00	0.94	-0.06	0.31	-0.06	0.31	-0.06	0.31
Secondary education	-0.02	0.35	-0.02	0.36	-0.02	0.36	-0.03	0.39	-0.03	0.40	-0.03	0.40
Tertiary education	-0.01	0.48	-0.01	0.48	-0.01	0.48	0.01	0.77	0.01	0.75	0.01	0.75
Change household income	0.01	0.62	0.01	0.59	0.01	0.58	0.27	0.00	0.27	0.00	0.27	0.00
Upward move	-0.03	0.35	-0.03	0.35	-0.03	0.35	0.06	0.32	0.06	0.33	0.06	0.33
Downward move	-0.01	0.73	-0.01	0.73	-0.01	0.74	-0.01	0.79	-0.01	0.78	-0.01	0.77
Change in health status	0.09	0.00	0.09	0.00	0.09	0.00	0.30	0.00	0.30	0.00	0.30	0.00
Married	0.13	0.01	0.12	0.01	0.12	0.01	0.14	0.07	0.13	0.08	0.13	0.08
Number of children at t	-0.02	0.09	-0.02	0.10	-0.02	0.10	0.00	0.96	0.00	0.92	0.00	0.91
<i>(Reference: No change in N of children)</i>												
Increase in children	-0.02	0.72	-0.16	0.04	0.12	0.04	0.31	0.00	0.38	0.00	0.10	0.48
Decrease in children	-0.14	0.05	-0.14	0.05	-0.14	0.05	-0.04	0.41	-0.04	0.41	-0.04	0.41
Increase in children × FT to PT			0.23	0.10					-0.29	0.48		
Increase in children × PT to PT			0.27	0.01					-0.27	0.15		
Increase in children × FT to FT					-0.32	0.00					0.30	0.07
Constant	1.98	0.00	1.98	0.00	1.99	0.00	2.13	0.00	2.13	0.00	2.13	0.00

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