Quality of work and job satisfaction: comparing female part-time work in four European countries

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ABSTRACT

Adding to the debate on the integrative or marginalizing nature of female part-time work, this article provides a comparative analysis of the implications of female part-time work for different intrinsic job quality dimensions and job satisfaction. Drawing on national micro-data from Britain, Germany, the Netherlands, and Sweden, our multivariate analyses show cross-national similarities in terms of lower job learning opportunities for female part-timers. We found a significantly higher incidence of repetitiveness only among Swedish female part-timers and lower degrees of task discretion among British, Dutch, and Swedish women working part-time hours. Female part-timers were either equally satisfied with their work as female full-timers or even more satisfied. This held true also after accounting for the lower intrinsic job quality of part-time work. While women working part-time hours were as affected by their job quality characteristics as were full-timers, we conclude that the shorter hours of work per se provide an important additional source of job satisfaction.

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Introduction

The increase of part-time employment experienced by a majority of the European countries since the 1980s has been a central issue in the debate about the changing nature of the labor market (Blossfeld and Hakim 1997, OECD 2010). On the one hand, part-time work has been promoted as a ‘reconciliation’ policy for women, facilitating work and family balance. According to this perspective, a part-time working woman would be relatively satisfied with her job (independently of job quality) because it allows her to combine work with family responsibilities (Booth and Van Ours 2008). On the other hand it has been argued that part-time employment creates a peripheral sector in the labor force, sharply differentiated from ‘core’ employees implying marginalized jobs with poor working conditions, for example in terms of lower pay and skills (e.g., Bardasi and Gornick 2008, Fouarge and Muffels 2009, Nelen and De Grip 2009, OECD
Following this perspective, it could be assumed that part-time jobs would be associated with lower job satisfaction (Booth and Van Ours 2009, p. 179). Empirical research to date presents a potential paradox: part-timers’ ‘objective’ conditions of employment are poorer in dimensions such as pay and skill, but ‘subjective’ job quality in terms of job satisfaction was found in several studies to be at least as high as those of full-timers (e.g., Clark 1996, Booth and Van Ours 2008, OECD 2010).

Our study adds to the understanding of this puzzle by providing detailed evidence on the interrelationship between job quality and job satisfaction for female part-time workers. We have three main research questions. First, do women in part-time jobs in general have poorer job quality compared to female employees in full-time positions? Our primary focus is on intrinsic job quality – in particular on the factors that are likely to enhance or reduce the developmental opportunities provided by work, such as task discretion, the repetitiveness of work, the extent to which work tasks encourage ongoing learning, and the intensity of work tasks (c.f., Green 2004, Gallie 2007a, Gallie and Zhou 2011). If we find differences in intrinsic job quality, a second important issue is whether the lower intrinsic quality of work translates into greater job dissatisfaction, or whether increased work-family balance buffers or even trumps negative effects on job satisfaction for female part-timers. A third question is if the quality of part-time jobs and its implications for job satisfaction are similar across advanced capitalist societies or vary depending on the characteristics of national institutional structures. In this article, we seek to compare the quality of female part-time work and job satisfaction to those of full-time employed men and women in four European countries: Britain, Germany, the Netherlands, and Sweden, which provide marked contrasts in terms of both employment regulation and welfare institutions.

Theoretical perspectives

In the following sections, we present theoretical perspectives on the connection between working hours, quality of work and job satisfaction and discuss the potential influence of national institutional settings.

The quality of part-time work

The growth of part-time work has been attributed both to preferences of employees and strategies of employers (Tijdens 2002). With respect to employees, the integration perspective emphasizes that part-time jobs provide job opportunities for individuals who would otherwise have been non-active in the labor market. For example, part-time work offers chances of labor market (re-)integration for mothers with young children in countries without publicly provided or subsidized childcare, older workers whose health might make it difficult to sustain a full-time job, or students who seek to gain some work experience and finance their studies (Booth and Van Ours 2008). The high share of part-time work chosen voluntarily (OECD 2010) is often seen as an indicator of the employment integration potential of this type of jobs. However, if part-time work is to be truly integrative, in the sense of facilitating longer-term career involvement and transitions into full-time work, the job tasks of part-timers must provide similar opportunities for skill acquisition as those of full-timers.
In contrast, labor market segmentation theory implies that employers use part-time employees as a buffering work resource when facing growing competition and volatility that accompanies the internationalization of finance and production. Employers, it is suggested, require a cheap and easily disposable workforce to handle increased workload at times when activity peaks or to cover staffing requirements at times of the day or week that are outside usual full-time hours (Tijdens 2002, Allaart and Bellmann 2007). Part-time employees are a major component of this non-standard ‘peripheral’ workforce, together with employees on fixed-term contracts (Hakim 1997). Given the need for easy substitutability and an expectation of relatively short job tenure, there is little incentive for employers to construct jobs that provide opportunities for skill development at work (Nelen and De Grip 2009). Hence, individuals holding part-time jobs would suffer from low task discretion, highly repetitive job tasks, and few learning opportunities in work. However, as peripheral workers part-time employees may face lower work intensity.

An alternative potential source of differential employment conditions between ‘peripheral’ part-timers and ‘core’ full-timers is differences in work values – in particular between women. Hakim (2004) suggests that there are distinct ‘types’ of women that differ in terms of the relative importance they attribute to work-career and family responsibilities respectively. Women who primarily focus on the family may look for relatively undemanding work with short or flexible working hours and low levels of work effort in order to make work and family demands easier to reconcile. In this perspective, employers design jobs to meet the preferences of specific segments of the work force. Hakim’s preference theory has, among other things, been criticized by feminist scholars (e.g., Crompton and Lyonette 2005) for pursuing a gender essentialist view – i.e., seeing differences between men and women mainly as given by nature. A less essentialist argument leading to similar conclusions is that some women may attach a high value to short hours of work and therefore are willing to accept less good intrinsic work conditions, following the logic of compensating differentials.

Theories of labor market segmentation and work values emphasize common factors in advanced capitalist societies. Part-time work is seen as reflecting either responses of employers to common processes of internationalization or women’s preferences about the relative importance of work and the family, largely conceived as unmediated by institutional resources or constraints. Thus, we would expect female part-timers to experience relative disadvantages with respect to intrinsic job quality compared to female full-timers in all of the countries in our study (hypothesis 1).

**Work hours, the quality of work, and job satisfaction**

There are grounds for expecting that part-time work is associated with lower job quality, but, on the other hand, there is also reason to expect that a reduced number of work hours leads to better quality of life (Harter and Arora 2010). Some studies focusing on the relationship of well-being and work hours show a negative effect of the number of work hours, and research shows an increased well-being after work hour reduction (Hamermesh et al. 2014). The obvious interpretation is that a lower number of work hours enables workers to spend more time on other life interests, thus to achieve a better work-life balance than employees working long hours.
There is not, however, a consistent relationship between well-being and a reduced number of work hours in research on part-time work. Some studies report no effects (Booth and van Ours 2008, Pouwels et al. 2008), others state positive associations between part-time work and life satisfaction (Gash et al. 2010, Van der Meer and Wielers 2013). Boye (2009) reports a positive effect of number of paid work hours on life satisfaction, while Peiró (2006) finds negative outcomes of part-time work on happiness for some countries and positive for others. A possible explanation for these mixed results is the problematic trade-off between job quality and work-life balance.

The same mixed effects of part-time work are reported for job satisfaction. A number of studies show a negative association between length of working hours and job satisfaction, especially for women (Clark 1996, Sousa-Poza and Sousa-Poza 2000, Booth and Van Ours 2008). There are indications that the influence of part-time work on job satisfaction varies across countries. For example, Clark and Senik (2006) find a positive effect of part-time work on job satisfaction for British women, while the association is negative for France. Bardasi and Francesconi (2004) also find that British part-timers have higher job satisfaction compared to employees working 30 hours a week or more. In contrast, for the Netherlands, Booth and Van Ours (2010) show that partnered women working between 33–40 hours a week have higher job satisfaction compared to women with shorter working hours, although these differences are no longer significant when unobserved characteristics are taken into account. In Australian data for partnered individuals, Booth and Van Ours (2009) do not find any connection between female part-time work and job satisfaction.

Most of these studies do not take account of intrinsic job quality when looking at the job satisfaction of part-time workers. An exception is Green (2004) who shows that in Britain, long working hours not only directly decrease satisfaction with the job, but increase work strain which in turn is negatively associated with job satisfaction. Kalleberg and Maste-kaasa (2001), drawing on Norwegian data, find no significant effect of part-time work on job satisfaction after adjusting for job quality aspects, such as job security, payment and intrinsic motivation. Thus, the reason for the contradictory results and cross-country variation in the association between female part-time work and job satisfaction may be that intrinsic job quality dimensions were not taken into account.

The impact of intrinsic job quality, however, is theoretically unclear as there may be counterbalancing effects. While some intrinsic working conditions associated with part-time work, which involve mental challenge and development opportunities (such as the effect of lower task discretion, higher degree of repetitiveness of work, and less learning opportunities) are ‘penalties’ that reduce job satisfaction (Clark 1996, Green 2004, Green and Tsitsianis 2005), there may also be ‘premiums’ (such as lower work intensity) that tend to increase job satisfaction (OECD 2010). In view of the conflicting theoretical expectations it remains an empirical question how the job satisfaction of female part-time workers is affected by intrinsic job quality.

An argument as to why women working part-time may have relatively high levels of job satisfaction, despite poorer work conditions, is that they may evaluate poor working conditions differently. This may be the case if they voluntarily choose less demanding jobs which allow a better reconciliation of work and family demands. As would be anticipated from the theory of compensating differentials, beneficial working conditions are traded for working time that is more compatible with family responsibilities (c.f., Filer 1985, Glass
and Camarigg 1992). Part-time employees may attach less importance to the intrinsic quality of work because work is less central to their lives (Hakim 2004). Increased work-family balance would then buffer or even trump the potential negative effects of job quality on job satisfaction. Furthermore, poor working conditions, such as repetitiveness of work, might not be as problematic for part-timers, because they are less exposed to these conditions due to their shorter working hours. Finally, there has been a long tradition, initiated by the French neo-Marxian critique of the alienating characteristics of Tayloristic production, that has argued that poor work conditions, limited opportunities and a restricted experience of potential alternatives lead to reduced aspirations and hence to higher levels of satisfaction than might be expected given the quality of the work (Friedmann 1956, Frisch-Gauthier 1962, Lallement 2007). Part-time work could be seen as providing an example of the type of work context in which such processes could occur. Thus, in jobs of similar job quality, we expect that differences in job satisfaction between female part-timers and full-timers are due to less negative evaluation of job quality characteristics by female part-timers (hypothesis 2).

An alternative argument is that female part-timers have higher job satisfaction simply because they are happier with their working hours, independently of job quality differences. Shorter working hours allow them better opportunities to combine paid work with non-work commitments, or to achieve a more adequate work-life balance. Thus, in jobs of similar quality, any remaining differences in job satisfaction between part-time female employees and full-time working women should disappear if satisfaction with working hours is accounted for (hypothesis 3).

Institutional context

Comparative research has shown that institutions and macro-structural conditions shape individual level relationships (e.g., Van der Lippe and Van Dijk 2002). Based on this view, we would expect that the relationship between part-time employment, the quality of work and job satisfaction differs between countries due to differences in the development of part-time work, the nature of the industrial relations system and the type of welfare institutions in the country. Despite common characteristics, the four countries show substantial differences with respect to institutional dimensions, which enable us to investigate this putative nexus.

The growth of part-time work led to rather different distributions by occupation and industry in the four countries. An implication of this may be that there are differences in the extent to which part-time jobs are segregated from full-time jobs. Bardasi and Gornick (2008) have suggested that occupational segregation in particular is important for understanding differences in the extent of inequalities of pay between full and part-time employees. In countries where the two types of employee were more integrated in terms of their occupations, pay differentials were lower. The same logic could be extended to the intrinsic conditions of work. Where occupational segregation is lower, inter-group comparisons are likely to be easier, leading to a greater harmonization of employment conditions. As can be seen in Table 1 (panel E), as measured by the Dissimilarity Index, overall occupational segregation between female part-time and full-time employees, was highest in Sweden, followed by Britain and the Netherlands, and lowest in Germany. The country differences varied, however, depending on the length of the working hours of...
part-time employees (panel F). For those working between 15 and 29 hours a week, segregation was highest in Britain, followed by Sweden, while still lowest in Germany. Among those working very short hours (less than 15 hours a week), it was greatest in the Netherlands and Britain while lowest in Sweden (although it should be noted that this category formed a relatively small proportion of Swedish part-time employees). The notable fact remains that segregation was lowest in Germany both overall and for two of the categories of part-timers (and it was relatively low for the third). The occupational segregation argument leads then to the expectation that part-time disadvantage in work conditions would be particularly low in Germany.

Arguably the timing of the growth of part-time work may also be important. There has been a growing recognition in recent decades of the need to reduce gender inequalities at work. But, with respect to part-time work, this was only formalized by the EU Directive on Part-Time Work (EUR-Lex 1997), which grew out of a Framework Agreement between the European-level social partners. The Directive provided for a general principle of non-discrimination against part-time workers on grounds of their working hours. The implementation of such policies, and the effect of the cultural ethos they embodied, was more likely to affect countries where part-time work had expanded more recently than those where it had long been established as a significant sector of the workforce. As can be seen in Figure 1, in Sweden and the UK there was a decline rather than a growth in female part-time work between the mid-1990s and the period of our surveys (the mid-2000s). There was some increase in the Netherlands, but starting from what was already a very high level – with 67% of women in employment working part-time already by the mid 1990s. It was in Germany that the expansion of part-time was most

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**Table 1. Descriptive statistics on the structure of collective bargaining, union density and occupational segregation.**

<table>
<thead>
<tr>
<th></th>
<th>Germany</th>
<th>The Netherlands</th>
<th>Sweden</th>
<th>Britain</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Centralization of union wage bargaining (2000–2005)</td>
<td>0.52</td>
<td>0.64</td>
<td>0.54</td>
<td>0.30</td>
</tr>
<tr>
<td>B Bargaining coverage (2000–2005)</td>
<td>63.00</td>
<td>84.17</td>
<td>91.67</td>
<td>35.63</td>
</tr>
<tr>
<td>C Overall union density (2000–2005)</td>
<td>23.1%</td>
<td>22.1%</td>
<td>77.8%</td>
<td>29.7%</td>
</tr>
<tr>
<td>D Union density; female part-time employees (2002–2008)</td>
<td>10.6%</td>
<td>19.2%</td>
<td>74.7%</td>
<td>26.0%</td>
</tr>
<tr>
<td>E Occupational segregation: All female part-timers vs. female full-timers</td>
<td>0.160</td>
<td>0.229</td>
<td>0.295</td>
<td>0.262</td>
</tr>
<tr>
<td>F Occupational segregation by type of female part-time work vs. female full-timers</td>
<td>0.160</td>
<td>0.229</td>
<td>0.295</td>
<td>0.262</td>
</tr>
<tr>
<td>Part-time: &lt;36 hours/week</td>
<td>0.160</td>
<td>0.229</td>
<td>0.295</td>
<td>0.262</td>
</tr>
<tr>
<td>Part-time: &lt;30 hours/week</td>
<td>0.170</td>
<td>0.215</td>
<td>0.246</td>
<td>0.261</td>
</tr>
<tr>
<td>Part-time: &lt;15 hours/week</td>
<td>0.270</td>
<td>0.323</td>
<td>0.166</td>
<td>0.302</td>
</tr>
</tbody>
</table>

Note: Index scores for A, B, E, F and percentages for C and D.

Sources:
(A) ICTWSS Database (Visser 2009).
(B) ICTWSS Database (Visser 2009).
(C) ICTWSS Database (Visser 2009).
(E-F) European Union Labour Force Survey (EU-LFS) was used for the segregation analyses and the EU-LFS wave that corresponded to the year of the national survey was selected (i.e., 2006 for Germany and Britain, 2004 for the Netherlands and 2002 for Sweden). Women between 22 and 57 years of age were selected (the age categorization in the EU-LFS did not allow selecting individuals in the ages of 20–60) and self-employed workers, family helpers and members of armed forces were excluded. The occupational categories were harmonized across the four countries and the analyses were conducted using a two digit occupational classification (ISCO-88) to measure the Dissimilarity Index (Duncan and Duncan 1955). The Dissimilarity Index can be multiplied by 100 and interpreted as the share of part-time workers (full-time workers) that would need to change occupation in order to obtain a perfectly integrated labor market.
likely to have been affected by the changes in institutional climate. Starting from a very low threshold (around 33% of female employment) in the mid 1990s, it increased to 43% in 2005. Thus, while part-time work had become an extensive sector of the workforce in Britain, the Netherlands and Sweden well before its emergence to prominence on the European policy agenda, its relative late development in Germany meant more influence by the new principles of equal treatment.

Together with the differences with respect to occupational segregation, the argument from the historical timing of the growth of part-time work would lead to the expectation that Germany would stand out as having particularly small differentials between the work conditions experienced by full and part-time employees (hypothesis 4).

With respect to the industrial relations systems, a combination of high centralization of collective bargaining, wide bargaining coverage and high union density would arguably lead to a greater standardization of conditions of employment across different segments of the workforce. The greater the centralization, the more likely it is that policies will be universalistic rather than category specific. The wider the bargaining coverage, the greater the proportion of employees that will be affected by such policies and the higher the union density the greater the ability of employees to ensure that policies are actually implemented at workplace level. The combination of high centralization, bargaining coverage and union density, which could be termed an ‘inclusive’ employment regime (Gallie 2007b), is likely to reduce the risk of part-timers becoming part of the peripheral or secondary labor market.

Based on comparative indicators from ICTWSS database (Visser 2009) Table 1 shows that with respect to the centralization and coordination of union bargaining there is a sharp divide between Germany, the Netherlands and Sweden on the one hand and Britain on the other. The first three countries have much higher levels of centralization

"Figure 1. Part-time employment as percentage of the total employment (%). Women 15–64 years of age.
compared to Britain. A broadly similar picture emerges for bargaining coverage, with the exception that the coverage in Germany is notably weaker than in both Sweden and the Netherlands (although far more extensive than in Britain). The comparative picture looks rather different in the case of union density. Overall union density is particularly low in Germany (23.1%) and the Netherlands (22.1%), intermediate in Britain (29.7%) and high in Sweden (77.8%). These patterns also hold for the levels of union membership among female part-timers themselves, with 10.6% unionized in Germany, 19.2% in the Netherlands, 26% in Britain and 74.7% in Sweden.

In sum, Sweden is the only one of the four countries in the study that has the characteristics of a relatively inclusive employment regime, with its combination of fairly high centralization of collective bargaining, extensive bargaining coverage and high trade union density. If more inclusive employment regulations reduce differences between part-timers and full-timers, we would expect the relative differences in the quality of work to be lowest in Sweden among the four countries (hypothesis 5).

Another institutional dimension that may mediate the relationship between part-time employment, the quality of work and job satisfaction is the nature of the welfare regime, as it affects not only women’s labor market participation but also potentially their norms about working times. There are marked country variations in views about the desirability of part-time jobs (Wielers et al. 2014). Lind and Ramussen (2008), drawing on evidence from Denmark, have suggested that welfare regimes that give strong support for women’s labor market participation through generous childcare provision in the longer run encourage a stronger orientation to full-time work among women, as they see an increased opportunity to pursue a career without sacrificing family life. This may lead to lower levels of satisfaction with part-time employment.

Sweden had the highest share (48%) of children below three years of age in publicly funded childcare in 1998/2000, followed by Britain (36%), while the proportion was smaller for Germany (10%) and the Netherlands (6%) (Neyer 2003). However, of the two countries with higher levels of childcare, there are considerable differences in the quality and cost of provision. In a report to the European Commission Mills et al. (2014) evaluate the quality and affordability (among other things) of childcare in European countries. It is shown that the skill levels required of staff are higher in Sweden relative to UK, but the maximum child group size and the child-to-staff ratio is lower for UK compared to Sweden. Nevertheless, the net cost of childcare (once childcare subsidies are subtracted) is relatively low in Sweden, while UK has the highest childcare costs in Europe. The higher cost of childcare provision in the UK is likely to be particularly restrictive for job choice for those, such as part-timers, with relatively low pay.

The negative implications of strong welfare regimes for views about part-time work get some support from evidence on the extent to which part-time work is voluntary or involuntary, i.e., if the employee would want to work longer hours in the event that such an opportunity was provided. Figures from OECD (2014) show that the shares of involuntary part-time work of total female part-time employment were 12.3% in Germany, 11.6% in Netherlands, 13.3% in UK and 32.6% in Sweden. Hence, female part-time work is to large extent voluntarily in the four countries we study. Nevertheless, while Germany, the Netherlands and UK cluster on rather low levels, Sweden is a marked outlier with a much higher share of involuntary part-time work compared to the other countries.
To summarize, if higher welfare provision for working mothers (especially with respect to childcare) enhances attachment to a norm of full-time employment, we would expect, other things being equal, lower satisfaction with the quality of part-time employment in Sweden (hypothesis 6).

**Measures, data and method**

A first issue is the definition of part-time work. In all countries in this study the norm for full-time work is approximately 40 hours of weekly work, but legislation and work hour agreements of employers and unions often deviate from this norm. One consequence of this is that self-defined part-time work can refer to quite different working hours. Thus, in order to achieve cross-country comparability when defining part-time work we rely on weekly working hours as opposed to a self-defined measure.

However, the selection of the relevant thresholds for part-time working hours is also problematic. There is a wide range of variation in the weekly hours part-timers work. Most crucially from the point of view of comparison, countries may differ considerably in the typical hours part-timers work (Halldén et al. 2012). To ensure that we are comparing like-with-like, it is essential to contrast employees with broadly similar working hours. We take weekly work exceeding 35 hours as full-time and then distinguish three categories of part-timer, drawing on Hakim’s (1997, p. 25) distinction: long part-time work (35–30 hours of work per week), regular part-time work (29–15 hours of work per week), and marginal part-time work (14–1 hours of work per week). With respect to the countries examined here, Swedish female part-timers worked substantially longer hours compared to part-timers in other countries (Figure 2). The category of female marginal part-time workers is largest in Germany and the Netherlands. The highest overall share of

![Figure 2](image-url) **Figure 2.** Descriptive statistics on working hours. The share of women working part-time and full-time by working hour category and country (%).

Source: European Labour Force Survey (2005); own calculations. Sample: Female employees 20–60 years old (excluding self-employed, family helpers and armed forces). Part-time definition based on usual working hours per week.
female-part-time employment is reached in the Netherlands, where only 22.6% of women worked full-time. In contrast, as can be seen in Figure 3, male part-time work is a small category in all four countries.

The need to compare different categories of part-timers imposes, however, significant constraints on the type of data that can be used. Most cross-national data sets with a focus on working conditions have samples that are too small to provide robust conclusions with respect to such sub-groups of part-time workers. We have turned then to national data sets in each country that have much larger sample sizes. The data sets deployed are the 2006 British Skills Survey, the 2004 Dutch OSA Labour Supply Panel, the 2006 German BIBB/BAuA Survey on Qualifications and Working Conditions, and the 2002 Swedish Living Condition Survey. Our sample is restricted to employees aged 20 to 60 excluding self-employed workers, family helpers and members of armed forces. The sample sizes vary between 2624 persons in the Netherlands and 11,419 persons in Germany. One drawback with using these data sets is that not all of the surveys include a measure on (in)voluntary part-time work. Hence, this factor cannot be adjusted for in the current analyses.

We focus on two types of dependent variables – intrinsic job quality and job satisfaction. The first measures the nature of work tasks – in particular factors that affect the opportunities for self-development: the variety or repetitiveness of the work, the degree of initiative or task discretion that the individual can exercise when carrying out the work, the extent to which the work tasks provide opportunities for learning and development, and the experience of time pressure in the job. Hence, our analyses adopt an ‘objective’ rather than a ‘subjective’ approach to the quality of work – that is to say they focus on self-reported characteristics of jobs that have been shown to be important for employees’ psychological well-being (the argument in favor of this approach has been cogently put by Green 2012). The second dependent variable estimates employees’ subjective satisfaction with their job using a single item measuring overall job satisfaction. In our final analyses

Figure 3. Descriptive statistics on working hours. The share of men working part-time and full-time by working hour category and country (%).
Source: European Labour Force Survey (2005); own calculations. Sample: Male employees 20–60 years old (excluding self-employed, family helpers and armed forces). Part-time definition based on usual working hours per week.
we centered the intrinsic job quality variables to be able to compare their effects on job satisfaction.

Although the data sets do not apply the same questionnaire there is a strong overlap in the variables that were used, which was a central argument in favor of comparing these four national data sets. In case of key variables with slightly different wording and coding we lay open the differences and argue that these variables still capture the same substantive issues. The specific question wordings and codes are given in Appendix A. With differences in question format, it is clearly not appropriate to contrast countries in terms of their levels on specific variables. However, our question concerns whether or not there is evidence of significant difference between part-time and full-time work within countries. Moreover, in case of different numbers of response categories we decided to dichotomize variables to reach harmonization and to focus on central contrasts. Keeping in mind that we use different data sets we decided to interpret our results carefully and not to overstate differences in effect sizes across countries. Instead, we focus on the substantial differences.

We have restricted the part-time categories to only include women. Despite the growing number of men in part-time jobs (e.g., in the Netherlands), they are mainly younger workers at the beginning of a work career (combining work and studies), or older workers under early retirement regulations. In addition, the shares of male part-time employees were very small in some of our four countries (see Figure 3).

Our primary focus is on the comparison between female part-time and female full-time workers. A comparison with male full-timers would not have allowed us to distinguish between disadvantage that is due to gender differences and disadvantage that is specifically attached to part-time work. However, we report results on male full-timers representing a benchmark of insider positions in the labor market.

To take account of potential differences in the individual characteristics and work contexts of part-timers, we adjust for the following variables in the analyses: age (coded into five-year intervals); education (three levels: primary, secondary and tertiary); industry (collapsed NACE categories: transformative industries, consumer industries, financial sector, welfare sector, other); public sector; being married or living together with a partner; holding a temporary contract; having children aged six or younger in the household; tenure and tenure squared; occupational status (one digit ISCO classification). These control variables are coded in a consistent way in the different data sets.

Results

In the following section, we seek to provide answers to the questions outlined in the framework above. We present first the results by the different dimensions of quality of work, i.e., work intensity, task discretion, opportunities for learning on the job and repetitive work, and then turn to the results for job satisfaction.

Are there differences in the quality of full-time and part-time work?

The results of the analyses on intrinsic job quality are presented in Table 2. The table reports coefficients of logit analyses with full-time working women as the reference group. A full set of controls was used in all models (not shown). Binary-dependent
variables were applied for two reasons. First some of the job quality measures were already binary by definition in the Netherlands and Sweden. Second, in a number of cases analyses of ordered categorical variables did not meet adequately the assumption of proportional odds when using the Brant test. This implies that the assumption of similarity as regards the relationship between each of the different response alternatives is violated (Long 1997). Furthermore, estimation of multinomial models would have resulted in very extensive tables including many parameters that would be difficult for the reader to interpret.

The dichotomization of ordered response categories followed theoretical reasoning, contrasting clearly positive responses with others (for details, see the full definition of the variables in Appendix A).

Except for Sweden, there is no clear effect of female part-time on repetitive work. Women working in regular and marginal part-time jobs in Sweden do more repetitive work compared to full-time working women. The main difference in repetitive work overall is however not between full-time and part-time jobs, but between men and women. In Germany and Britain, and (at a lower level of significance) in the Netherlands, men have a lower degree of repetitiveness in their jobs compared to women.

Table 2 also shows no clear pattern across countries of an impact of female part-time work on the discretion that employees can exercise over their work. There are significant and negative effects for regular part-time workers in comparison to full-time working
women in the Netherlands, as well as for long-hour part-timers in Sweden (the latter is only significant on the 10% level). In Britain, both regular and marginal part-time workers have lower levels of task discretion compared to female full-timers.

In all countries, women working part-time are disadvantaged with respect to opportunities to learn on the job relative to women working full-time. These are significant in all countries for marginal part-time workers and for all countries other than Sweden for regular part-timers. However, it is only in Britain that there is a significant negative effect for part-timers working long hours (10% significance level). Hence, part-time jobs offer less learning opportunities compared to full-time jobs across the countries in our study.

Finally, the results indicate that work intensity is lower for female part-timers in Britain, Germany and the Netherlands working regular or marginal part-time hours in comparison to women in full-time jobs, while full-time working women tend to have jobs of equal or, in the case of Germany, even higher work intensity compared to full-time working men. There is, however, a notable exception: Swedish women working part-time seem to have no advantage with respect to lower work intensity when compared to full-time working women. For Britain, and for Germany but at a weaker level of significance, also women in long part-time jobs experience lower work intensity compared to female full-timers.

To summarize: The implications of part-time work vary for the different dimensions of job quality and across countries such that there is no clear evidence in favor of hypothesis 1 (i.e., that female part-timers experience relative disadvantages with respect to job quality compared to female full-timers in all of the countries in our study). The effects are clearest for learning opportunities and work intensity. The shorter the working hours of the job, the lower is the degree of learning opportunities in all countries and of work intensity in three of the four countries. The effect of part-time work on repetitive work and task discretion is less consistent. There is only evidence of part-time disadvantage in the repetitiveness of work in Sweden and in task discretion in Britain, the Netherlands and Sweden.

An indicator of the extent of part-timer disadvantage in job quality can be created by taking the extent to which significant disadvantage exceeds significant advantage (compared to female full-timers) across the four dimensions of job quality. This shows a rather varied pattern for the different categories of part-time. There is no strong evidence for any of the countries that long-hour part-timers have lower job quality. German long-hour part-timers even benefit from lower levels of work intensity. The only exception is Sweden, where women working long part-time hours have slightly lower task discretion compared to female full-time workers (only significant on the 10% level). Regular part-timers have lower job quality in Britain and the Netherlands (since they are disadvantaged with respect to two dimensions of the job and advantaged with respect to only one) and in Sweden (being disadvantaged on one job quality dimension, with no compensating advantage). Marginal part-timers have poorer jobs in Britain and Sweden.

The Swedish pattern is not consistent with the view that higher welfare provision and more inclusive employment regulation protect part-timers from being disadvantaged relative to female full-timers (hypothesis 5). Instead, in line with hypothesis 4, we find that female part-timers are least disadvantaged in Germany, which represents the country with the lowest occupational segregation by working time status and the latest growth in part-time work in our sample of countries.
Quality of work and job satisfaction

Having established the differences between full-time and part-time work with respect to intrinsic quality of work, we turn next to the issue of job satisfaction. Are there differences in job satisfaction between full-time and part-time employees? Do job quality and working

Table 3. Effects of working time and quality of work on job satisfaction. OLS analyses with a full set of controls.

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3 Interaction terms added</th>
<th>Model 4</th>
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<tr>
<td></td>
<td>Coeff.</td>
<td>(t-stat)</td>
<td>Coeff.</td>
<td>(t-stat)</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Men, full-time</td>
<td>−0.03</td>
<td>(−1.12)</td>
<td>−0.05*</td>
<td>(−1.93)</td>
</tr>
<tr>
<td>Women, 30–35 h</td>
<td>0.00</td>
<td>(0.00)</td>
<td>−0.00</td>
<td>(0.01)</td>
</tr>
<tr>
<td>Women, 15–29 h</td>
<td>0.04</td>
<td>(1.47)</td>
<td>0.04</td>
<td>(1.35)</td>
</tr>
<tr>
<td>Women, 1–14 h</td>
<td>0.13**</td>
<td>(2.72)</td>
<td>0.11*</td>
<td>(2.35)</td>
</tr>
<tr>
<td>Repetitive work</td>
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<td>(−0.74)</td>
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<td>(1.32)</td>
</tr>
<tr>
<td>Task discretion</td>
<td>0.11***</td>
<td>(11.04)</td>
<td>0.12***</td>
<td>(6.44)</td>
</tr>
<tr>
<td>Work intensity</td>
<td>−0.06***</td>
<td>(−5.92)</td>
<td>−0.05*</td>
<td>(−2.27)</td>
</tr>
<tr>
<td>Learning</td>
<td>0.10***</td>
<td>(8.26)</td>
<td>0.11***</td>
<td>(4.86)</td>
</tr>
<tr>
<td>Work hours satisf.</td>
<td>0.59***</td>
<td>(25.87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the Netherlands</td>
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<td></td>
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<tr>
<td>Men, full-time</td>
<td>−0.02</td>
<td>(−0.45)</td>
<td>−0.03</td>
<td>(−0.94)</td>
</tr>
<tr>
<td>Women, 30–35 h</td>
<td>0.01</td>
<td>(0.51)</td>
<td>0.01</td>
<td>(0.48)</td>
</tr>
<tr>
<td>Women, 1–14 h</td>
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<td>(1.17)</td>
<td>0.06*</td>
<td>(2.22)</td>
</tr>
<tr>
<td>Repetitive work</td>
<td>−0.03*</td>
<td>(−1.81)</td>
<td>−0.02</td>
<td>(−0.37)</td>
</tr>
<tr>
<td>Task discretion</td>
<td>−0.03</td>
<td>(−1.37)</td>
<td>−0.04</td>
<td>(−0.73)</td>
</tr>
<tr>
<td>Work intensity</td>
<td>−0.11***</td>
<td>(−6.34)</td>
<td>−0.10*</td>
<td>(−1.93)</td>
</tr>
<tr>
<td>Learning</td>
<td>0.52***</td>
<td>(27.31)</td>
<td>0.62***</td>
<td>(11.22)</td>
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<tr>
<td>Work hours satisf.</td>
<td>0.09***</td>
<td>(5.47)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Men, full-time</td>
<td>−0.01</td>
<td>(−0.27)</td>
<td>−0.03</td>
<td>(−0.65)</td>
</tr>
<tr>
<td>Women, 30–35 h</td>
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<td>(−0.05)</td>
<td>0.03</td>
<td>(0.55)</td>
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<tr>
<td>Women, 1–14 h</td>
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<td>(−0.13)</td>
<td>0.04</td>
<td>(0.58)</td>
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<tr>
<td>Repetitive work</td>
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<td>(−11.41)</td>
<td>−0.63***</td>
<td>(−6.80)</td>
</tr>
<tr>
<td>Task discretion</td>
<td>0.16***</td>
<td>(5.39)</td>
<td>0.19***</td>
<td>(3.69)</td>
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<tr>
<td>Work intensity</td>
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<td>(−8.25)</td>
<td>−0.18***</td>
<td>(−7.06)</td>
</tr>
<tr>
<td>Learning</td>
<td>0.28***</td>
<td>(6.92)</td>
<td>0.30***</td>
<td>(4.32)</td>
</tr>
<tr>
<td>Work hours satisf.</td>
<td>0.11*</td>
<td>(2.58)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Britain</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men, full-time</td>
<td>−0.14***</td>
<td>(−3.29)</td>
<td>−0.15***</td>
<td>(−3.58)</td>
</tr>
<tr>
<td>Women, 30–35 h</td>
<td>−0.10</td>
<td>(−1.62)</td>
<td>−0.08</td>
<td>(−1.31)</td>
</tr>
<tr>
<td>Women, 1–14 h</td>
<td>0.03</td>
<td>(0.60)</td>
<td>0.09*</td>
<td>(1.80)</td>
</tr>
<tr>
<td>Repetitive work</td>
<td>0.31***</td>
<td>(3.57)</td>
<td>0.32**</td>
<td>(2.96)</td>
</tr>
<tr>
<td>Task discretion</td>
<td>−0.07***</td>
<td>(−4.69)</td>
<td>−0.05*</td>
<td>(−1.91)</td>
</tr>
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<td>Work intensity</td>
<td>−0.02*</td>
<td>(−1.65)</td>
<td>−0.05*</td>
<td>(−1.88)</td>
</tr>
<tr>
<td>Learning</td>
<td>0.23***</td>
<td>(10.39)</td>
<td>0.21***</td>
<td>(4.92)</td>
</tr>
<tr>
<td>Work hours satisf.</td>
<td>0.64***</td>
<td>(20.80)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Female full-time workers are the reference category. Number of case: 3782 (Britain), 11,419 (Germany), 2685 (Sweden), 2624 (the Netherlands).

*pAll models control for age, education, industry, public sector, being married or living with a partner, holding a temporary contract, having small children in the household, tenure and tenure squared, and occupational status. Model 3 additionally controls for interaction terms between intrinsic job quality and working hours (see Appendix B for the results). In Model 4 satisfaction with working hours is added, but the interaction terms are excluded.

***Significance level: p < .001.
**Significance level: p < .01.
*Significance level: p < .05.
Significance level: p < .10.
hour satisfaction mediate such potential differences in job satisfaction? We answer these questions using stepwise linear regression techniques (Table 3). Linear regression represents the common standard in analyses of satisfaction, but sensitivity analyses show that there are no substantial differences from the results obtained with ordered logit analyses.

Again it must be remembered that the job satisfaction indicators from these national data sets are not identical. Those of Germany, the Netherlands and the UK, nevertheless, are clearly highly comparably in terms of the issue they are capturing. The indicator of job satisfaction for Sweden, however, is less directly equivalent and the results must be regarded as more tentative. The exact question wordings and codes for each country for the measures of job satisfaction as well as for working hour satisfaction are described in Appendix A. To increase cross-country comparability and to simplify the analyses, the job quality variables were treated in the following analyses as interval-scaled measures. Moreover, the job quality variables were centered in order to ease the interpretation of the main effects when interaction terms of part-time and job quality are introduced in Model 3 of Table 3.

In Model 1 we set out to answer the question of to what extent the level of job satisfaction of part-time workers differs from that of full-time workers. At this stage we already control for socio-demographic, occupational and firm characteristics which might confound the relationship between part-time working status and job satisfaction. While we do not find any significant differences in job satisfaction between female part-timers and full-timers in the Netherlands and Sweden, marginal female part-timers in Britain and Germany have significantly higher job satisfaction compared to female full-timers. Hence, the job satisfaction of part-time working women is definitely not lower than that of full-time employees across all four countries and it is even higher than that of full-time working women for British and German marginal part-timers.

Many previous studies have omitted to take account of intrinsic job quality when studying job satisfaction of part-time workers. Model 2 sheds some light on this issue by additionally including intrinsic job quality measures. The independent effects of the different dimensions of job quality are in general highly significant for job satisfaction. With the exception of Germany, repetitive work has a negative effect on job satisfaction (albeit only significant at the 10% level for the Netherlands), while task discretion increases job satisfaction in all countries except the Netherlands. Likewise, high work intensity has a significant negative influence on job satisfaction (but only significant at the 10% level for Britain), whereas learning opportunities in work increase job satisfaction in all four countries. The lower work intensity of part-timers in all countries but Sweden (see Table 2) is the only job characteristic that affects their job satisfaction in a positive way compared to female full-timers. In sum, it is evident that intrinsic quality of work is important for the job satisfaction.

Once differences in intrinsic job quality are taken into account, we find that regular part-time workers in the Netherlands and Britain (the latter at a borderline level of significance) become more satisfied with their jobs compared to female full-timers. Similarly, there is a marked increase in the size and significance of the coefficient for the British marginal part-timers, while the coefficient for German women working marginal part-time hours decreases slightly. Obviously, the omitted intrinsic job quality factors acted as a suppressor in the association between part-time work and job satisfaction in the British and
the Dutch case, while it explained some part of the difference in job satisfaction between the two working hour categories in Germany.

In Model 3, we test whether part-time employees value job quality characteristics differently compared to full-time workers, by extending our empirical analyses to include interaction effects between quality of work characteristics (i.e., repetitiveness, task discretion, learning and work intensity) and working hour categories (these interaction terms are presented in Appendix B). Since all intrinsic job quality measures are centered the main effects of working time can be interpreted as the effect of working time for a job with the average intrinsic job quality features. Contrary to hypothesis 2, however, there are few significant differences in the assessment of intrinsic job quality characteristics between female part-timers and full-timers. In the significant cases, some effects appear stronger for part-timers, while some appear weaker. For example, as regards learning on the job, there is a positive effect for British long hour part-timers (but not for other part-timers), whereas this effect is negative for long hour German part-timers, as well as for Dutch part-time employees working regular and marginal hours. Overall, however, the improvement in model fit is very marginal (not shown). Furthermore, the main effects of female part-time work on job satisfaction hardly change when the centered interaction terms were introduced. We therefore reject hypothesis 2 and conclude that differences in job satisfaction between female part-timers and full-timers cannot be adequately accounted for by a less negative evaluation of job quality characteristics by female part-timers.

Finally, in Model 4 we investigate whether women are simply happier with the working hours in part-time jobs and whether this explains any remaining differences in job satisfaction between part-time female workers and full-time working women. Adding satisfaction with working time clearly has strong effects: The higher the satisfaction with working hours, the higher is the job satisfaction. Interestingly, the positive effect of marginal part-time work in Germany is not significant after accounting for working hour satisfaction. In Britain there is a notable decline in the size and significance of the positive coefficient of marginal part-timers and regular part-timers are no longer significantly different from female full-timers. Furthermore, once satisfaction with work hours is controlled, long-hour part-timers in Britain come to show highly significant lower job satisfaction compared to female full-timers. Also, the higher job satisfaction of Dutch regular part-timers, that emerged once intrinsic job quality was adjusted, remains only of borderline significance (10% level) after controlling for satisfaction with working hours.

To summarize: Despite the lower quality of work, the level of job satisfaction of part-time working women is not lower than the job satisfaction of full-time workers. On the contrary, the analyses indicate that job satisfaction of marginal part-time workers in Britain and Germany is somewhat higher than the job satisfaction of full-time employees even after accounting for a number of individual, job and firm characteristics. Also, our results indicate that intrinsic job quality matters for job satisfaction; in the Dutch case (and for Britain, but only with a 10% significance level), the omitted intrinsic job quality factors acted as suppressors for regular part-timers in the association between part-time work and job satisfaction. In addition, the results suggest that the job satisfaction of part-time workers is not less affected by intrinsic job quality characteristics than is the case for full-time employees. Finally, we have shown that, once satisfaction with working hours per se is taken into account, the higher job satisfaction of German marginal part-timers and British regular part-timers disappears and that of British marginal
part-timers and Dutch regular part-timers is sharply reduced, while British long hour part-timers have lower levels of job satisfaction compared to full-time female workers.

**Conclusion**

This article has addressed the paradox that part-timers’ work conditions are worse and that job satisfaction is at least as high among part-time workers as among full-timers: The literature offers ample indications that the quality of part-time jobs is worse than that of full-time jobs (e.g., Bardasi and Gornick 2008), but there are also indications that part-time jobs not only have ‘penalties’, but also ‘premiums’ (OECD 2010). In addition, countries show substantial differences in the extent to which part-time is integrated in the work system. In some countries, part-time jobs are perceived as ‘bad jobs’ (e.g., Kalleberg 2000), whereas in other countries many part-time jobs are almost equivalent to full-time jobs (e.g., Laureijssen and Glorieux 2013). We have tested for Britain, Sweden, Germany and the Netherlands how the quality of part-time work compares to that of full-time work and how this affects part-timers’ satisfaction with their work.

We first studied the question of how the quality of female part-time jobs compares to that of female full-time jobs. Our focus was on dimensions important for the intrinsic quality of work – in particular the extent to which opportunities for development through work are offered. Results show that in all countries, part-time work is associated with the penalty of reduced opportunities to learn on the job. The implications of part-time work for task discretion and repetitiveness vary across countries. Only Swedish part-timers experience a higher incidence of repetitive work. Dutch, Swedish and, particularly, British part-time working women experience less task discretion than their full-time counterparts. In addition, we established the premium of part-time work: in all countries but Sweden female part-time employees are less subject to work pressure.

With respect to cross-country variations in the quality of work, we had contrasting hypotheses. The first was that, given its low level of occupational segregation of part-timers and the relatively late development of part-time work, differentials in employment conditions between full-timers and part-timers would be lowest in Germany (hypothesis 4). The second was that quality of part-time jobs would be closer to that of full-timers in Sweden, because of the more protective employment policies (hypothesis 5).

Our evidence gave little support for the view of hypothesis 5 that differentials in employment conditions between female full-timers and part-timers would be particularly low in Sweden. Sweden, with Britain and the Netherlands, is among the countries with more negative than positive dimensions in the quality of female part-time work. In contrast and in line with hypothesis 4, Germany stands out as a country where the positive and negative dimensions of part-time work net out compared to full-time working women. Despite institutional differences, however, our results show important similarities in the measured quality of part-time work among the countries, such as the penalty of lower learning opportunities and the premium of lower work intensity in all countries but Sweden.

We then focused on the question of how the lower intrinsic quality of work translates into greater job dissatisfaction among female part-timers, and whether potential increased work-family reconciliation balances or even trumps the effects. The results show that, despite the overall job quality disadvantages of female part-time work, part-timers are either as satisfied with their jobs as women working full-time or, in the case of marginal
part-timers in Britain and Germany, even more satisfied. These analyses also show, however, that poor intrinsic quality of work has its negative effect on part-timers’ job satisfaction, as a suppressing effect on the association between part-time work and job satisfaction. After adjustment for intrinsic job quality, regular part-timers in Britain and the Netherlands have higher levels of satisfaction than women working full-time, and British marginal part-timers are significantly more satisfied with their jobs. The lack of significant results for Sweden might imply that a higher commitment to a norm of full-time employment, and hence higher levels of involuntary part-time work, act as a suppressor. This would be consistent with hypothesis 6 that welfare regimes that provide particularly generous support for women’s labor market participation also encourage a stronger orientation to full-time employment and hence higher dissatisfaction with part-time work, although we are unfortunately not able explore this in more detail due to data limitations.

We did not find support for the claim that female part-timers are less concerned by poor intrinsic job quality (hypothesis 2). Intrinsic job quality seems to affect the job satisfaction of part-timers in the same way as that of full-timers. However, satisfaction with the actual hours of the job has implications for the differences in job satisfaction between female full-time and part-time employees (hypothesis 3). When satisfaction with the work hours of work *per se* is adjusted, marginal part-timers in Germany and regular part-timers in Britain, that had higher levels of job satisfaction compared to full-timers, were no longer significantly different from female full-timers. Moreover, the higher satisfaction of marginal part-timers in Britain diminishes sharply both in terms of the size of the coefficient and its significance, whereas long-term part-timers now have highly significant lower levels of job satisfaction. The greater satisfaction with work hours thus tends to compensate for the worse intrinsic job quality.

These results add to the literature in three ways. The first addition is that part-time work not only has penalties, such as worse learning and development opportunities, but also premiums, such as lower work intensity. All in all, however, the effect of intrinsic job quality on job satisfaction for part-time workers is negative in comparison to that for full-time workers. The second addition is that, despite significant institutional differences between the countries in our analysis, differences in the intrinsic job quality of part-time and full-time work and their effects upon job satisfactions do not show large differences between the countries. The last addition is our result that the greater satisfaction of part-timers with their work hours furthers the understanding of their job satisfaction. We show that intrinsic job quality has the same effect for female part-time workers as for full-time workers, but that the greater work hour satisfaction of part-timers adds to their job satisfaction. These results suggest that a better work-life balance explains the relatively high job satisfaction of part-time workers.

**Notes**

1. It should though be noted that the working hour categories used in this study consisted of both male and female workers (i.e., part-time was not interacted with gender).
2. Occupational segregation measures are sensitive to the degree of detail of the occupational classification system used. Given data constraints, Bardasi and Gornick (2008) collapsed occupations into only three broad categories, leading to an estimation of occupational segregation in which, in contrast to our own analyses based on a more detailed two digit ISCO classification of occupations containing 26 occupational categories, Sweden stood out as
having a particularly low level of segregation. To test the robustness of our findings we also used another segregation index, i.e., the A Index (Charles and Grusky 1995). These results too placed Sweden in the top as the country with the highest degree of occupational segregation by female working time status. Nevertheless, the Netherlands was ranked as the country with the lowest degree of segregation, with Germany and UK falling in-between.

3. For Sweden we also run robustness analyses merging regular and marginal part-timers since the marginal part-time category is very small. The findings of these analyses are similar to the once reported.

4. We exclude the former East Germany from our analyses due to persisting differences between the former East and West Germany.

5. The ‘transformative industries’ consist of the NACE categories A (agriculture, forestry, fishing), B (mining and quarrying), C (manufacturing), D (electricity etc.), E (water supply etc.), and F (construction). The ‘consumer industries’ include the NACE categories G (wholesale and retail trade etc.), H (transport and storage), I (accommodation and food service activities), and J (information and communication). The ‘financial sector’ comprises the NACE categories K (financial and insurance activities), L (real estate activities), M (professional, scientific and technical activities), and N (administrative and supportive service activities). The ‘welfare sector’ includes the NACE categories O (public administration and defence, compulsory social security), P (education), and Q (human health and social work activities). The ‘other’ comprises of the NACE categories R (arts, entertainment and recreation), S (other service activities), T (activities of households as employers etc.), and U (activities of extraterritorial organisations etc.).

6. There was also a significant negative coefficient for all categories of British female part-timers taking the contrast between those who had a great deal of influence over how they did the task and others.

7. For the sake of parsimonious models, we estimated Model 4 without interaction terms between intrinsic job quality and working hours. As expected, sensitivity analyses confirm that the results do not change significantly if the interaction terms from model 3 are included (not shown).
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**References**


Appendix A. Samples and indicators from the national surveys

Data

We use national representative surveys from the four different countries. For Britain we used the British Skills Survey 2006 conducted by BMRB with a response rate of 49% (Felstead et al. 2007). The sample contains 7787 cases of which 3782 are included in the analyses. For Germany we used BIBB/BAuA Survey on Qualifications and Working Conditions 2006 conducted by the Bundesinstitut für Berufsbildung (BIBB) and the Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (BAuA) (Hall and Tiemann 2009). The response rate was 44% and the sample contains 20,000 cases of which 11,419 are included in the analyses. For the Netherlands we used the OSA Labour Supply Panel 2004 conducted by the Institute for Labor Studies with a response rate of 60% (Fouarge et al. 2006). The sample contains 4797 cases of which 2624 are included in the analyses. For Sweden we used the Swedish Living Condition Survey with a random sample of the Swedish population conducted by Statistics Sweden in 2002 (Statistics Sweden 2002). The response rate was 74.6% and the sample contains 6322 cases of which 2685 are included in the analyses.
**Question formats in the different national surveys**

**Repetitive work**
Britain 'How often does your work involve carrying out short, repetitive task' (1) 'Never', (2) 'Rarely', (3) 'Sometimes', (4) 'Often', (5) 'Always'. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) + (3) versus (4) + (5).
Germany 'How often does it happen at work that you repeat the same work process in detail?' (1) 'Never', (2) 'Rarely', (3) 'Sometimes', (4) 'Often'. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) versus (3) + (4).
The Netherlands 'Do you repeat the same simple tasks?' (0) 'No', (1) 'Yes'. The original categories are of reversed order.

**Task discretion**
Britain 'How much influence do you personally have on how you are to do the task' (1) 'None at all', (2) 'Not much', (3) 'A fair amount', (4) 'A great deal'. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) + (3) versus (4).
Germany 'How often does it happen at work that your work procedures are prescribed in all details?' (1) 'Often', (2) 'Sometimes', (3) 'Rarely', (4) 'Never'. Dichotomization in Table 2: (1) + (2) versus (3) + (4).
The Netherlands 'I can to a large extent decide how to do my job' (1) 'Completely disagree', (2) 'Disagree', (3) 'Neutral', (4) 'Agree', (5) 'Completely agree'. Dichotomization in Table 2: (1) + (2) + (3) versus (4) + (5).
Sweden 'Do you think you can influence the planning of your work' (1) 'No influence at all', (2) 'Some influence', (3) 'Large influence'. Dichotomization in Table 2: (1) + (2) versus (3).

**Learning**
Britain 'Job requires learning new things' (1) 'Strongly disagree', (2) 'Disagree', (3) 'Agree', (4) 'Strongly agree'. Dichotomization in Table 2: (1) + (2) versus (3) + (4).
Germany 'How often does it happen at work that you have to improve hitherto existing procedures or to try out something new?' (1) 'Never', (2) 'Rarely', (3) 'Sometimes', (4) 'Often'. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) versus (3) + (4).
The Netherlands 'I can develop myself within my job' (1) 'Completely disagree', (2) 'Disagree', (3) 'Neutral', (4) 'Agree', (5) 'Completely agree'. Dichotomization in Table 2: (1) + (2) + (3) versus (4) + (5).
Sweden 'Is your work of such kind that you have large opportunities of learning new things?' (0) 'No', (1) 'Yes'. The original categories are of reversed order.

**Work intensity**
Britain 'Has to work extra time, over and above the formal hours of my job, to get through the work or to help out' (1) 'Not at all true', (2) 'Somewhat true', (3) 'True', (4) 'Very true'. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) versus (3) + (4).
Germany 'How often does it happen at work that you have to work quickly?' (1) ‘Never’, (2) ‘Rarely’, (3) ‘Sometimes’, (4) ‘Often’. The original categories are of reversed order. Dichotomization in Table 2: (1) + (2) versus (3) + (4).


Sweden 'How often do you have enough time to complete your work tasks?' (1) ‘Basically every day’, (2) ‘At least 1 time a week’, (3) ‘Some times a month’, (4) ‘Some times a year’, (5) ‘Never’. Dichotomization in Table 2: (1) + (2) versus (3) + (4) + (5).

**Job satisfaction**


Sweden 'How do you feel on your way to work?' (1) ‘Feeling strong unease thinking about work’, (2) ‘Feeling some unease thinking about work’, (3) ‘Have neither positive or negative feelings thinking about work’, (4) ‘Have both negative and positive feelings thinking about work’ (5) ‘Have a rather positive feeling thinking about work’, (6) ‘Happy and content thinking about work’. The original categories are of reversed order.

**Working hour satisfaction**

Britain ‘How satisfied or dissatisfied are you with the hours you work?’ (1) ‘Completely dissatisfied’, (2) ‘Very dissatisfied’, (3) ‘Fairly dissatisfied’, (4) ‘Neither satisfied nor dissatisfied’, (5) ‘Fairly satisfied’, (6) ‘Very satisfied’, (7) ‘Completely satisfied’. The original categories are of reversed order. The variable is coded into binary variable, taking the value of 0 for responses alternatives (1) to (5) and 1 for response alternatives (6) and (7).

Germany 'How satisfied are you with your current hours of work’ (1) ‘Not satisfied’, (2) ‘Less satisfied’, (3) ‘Satisfied’, (4) ‘Very satisfied’. The original categories are of reversed order. This variable is coded into a binary variable and it takes value 0 for response alternatives (1) and (2) and value 1 for response alternatives (3) and (4).

The Netherlands ‘Are you satisfied with your current working hours or would you like to work more or fewer hours?’ (0) ‘No’, (1) ‘Yes, I am satisfied’.

Sweden 'Does your ordinary weekly working time suit you best or would you like to work shorter or longer hours? The wage would decrease or increase accordingly’ (1) ‘The current working time suits me best’, (2) ‘Shorter hours would be better’, (3) ‘Longer hours would be better’. This variable is coded into a binary variable and it takes value 0 for response alternatives (2) and (3) and value 1 for response alternative (1).
Appendix B. Full list of interaction terms between intrinsic job quality and working hours (Table 3, Model 3).

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Men, full-time</td>
<td>−0.05**</td>
<td>(−1.92)</td>
<td>−0.03</td>
<td>(−0.82)</td>
<td>−0.03</td>
<td>(−0.71)</td>
<td>−0.16***</td>
<td>(−3.83)</td>
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<tr>
<td>Women, 30–35 h</td>
<td>0.00</td>
<td>(0.08)</td>
<td>0.01</td>
<td>(0.45)</td>
<td>0.04</td>
<td>(0.62)</td>
<td>−0.12*</td>
<td>(−1.94)</td>
</tr>
<tr>
<td>Women, 15–29 h</td>
<td>0.04</td>
<td>(1.45)</td>
<td>0.06*</td>
<td>(2.20)</td>
<td>0.02</td>
<td>(0.26)</td>
<td>0.07</td>
<td>(1.28)</td>
</tr>
<tr>
<td>Women, 1–14 h</td>
<td>0.12*</td>
<td>(2.28)</td>
<td>0.01</td>
<td>(0.53)</td>
<td>0.42*</td>
<td>(2.19)</td>
<td>0.32**</td>
<td>(2.96)</td>
</tr>
<tr>
<td>Repetitive work</td>
<td>0.03</td>
<td>(1.32)</td>
<td>−0.02</td>
<td>(−0.37)</td>
<td>−0.63***</td>
<td>(−6.80)</td>
<td>−0.05*</td>
<td>(−1.91)</td>
</tr>
<tr>
<td>Task discretion</td>
<td>0.12***</td>
<td>(6.44)</td>
<td>−0.04</td>
<td>(−0.73)</td>
<td>0.19***</td>
<td>(3.69)</td>
<td>0.21***</td>
<td>(5.87)</td>
</tr>
<tr>
<td>Work intensity</td>
<td>−0.05*</td>
<td>(−2.27)</td>
<td>−0.10*</td>
<td>(−1.93)</td>
<td>−0.18***</td>
<td>(−7.06)</td>
<td>−0.05*</td>
<td>(−1.88)</td>
</tr>
<tr>
<td>Learning</td>
<td>0.11***</td>
<td>(4.86)</td>
<td>0.62***</td>
<td>(11.22)</td>
<td>0.30***</td>
<td>(4.32)</td>
<td>0.21***</td>
<td>(4.92)</td>
</tr>
<tr>
<td>Men, full-time × Repetitive work</td>
<td>−0.06*</td>
<td>(−2.54)</td>
<td>−0.02</td>
<td>(−0.43)</td>
<td>0.18</td>
<td>(1.52)</td>
<td>−0.03</td>
<td>(−0.76)</td>
</tr>
<tr>
<td>Men, full-time × Task discretion</td>
<td>−0.03</td>
<td>(−1.06)</td>
<td>0.03</td>
<td>(0.73)</td>
<td>−0.05</td>
<td>(−0.74)</td>
<td>−0.01</td>
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<tr>
<td>Men, full-time × Work intensity</td>
<td>−0.02</td>
<td>(−0.91)</td>
<td>−0.01</td>
<td>(−0.15)</td>
<td>0.10**</td>
<td>(2.85)</td>
<td>0.07*</td>
<td>(2.10)</td>
</tr>
<tr>
<td>Men, full-time × Learning</td>
<td>−0.01</td>
<td>(−0.45)</td>
<td>−0.06</td>
<td>(−1.33)</td>
<td>−0.01</td>
<td>(−0.07)</td>
<td>0.04</td>
<td>(0.73)</td>
</tr>
<tr>
<td>Women, 30–35 h × Repetitive work</td>
<td>−0.04</td>
<td>(−0.93)</td>
<td>−0.02</td>
<td>(−1.00)</td>
<td>−0.10</td>
<td>(−0.57)</td>
<td>0.03</td>
<td>(0.61)</td>
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<tr>
<td>Women, 30–35 h × Task discretion</td>
<td>0.00</td>
<td>(0.12)</td>
<td>0.00</td>
<td>(0.17)</td>
<td>0.04</td>
<td>(0.39)</td>
<td>0.00</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Women, 30–35 h × Work intensity</td>
<td>0.00</td>
<td>(0.05)</td>
<td>−0.02</td>
<td>(−0.86)</td>
<td>0.02</td>
<td>(0.40)</td>
<td>−0.02</td>
<td>(−0.41)</td>
</tr>
<tr>
<td>Women, 30–35 h × Learning</td>
<td>−0.11*</td>
<td>(−2.28)</td>
<td>−0.02</td>
<td>(−1.03)</td>
<td>−0.00</td>
<td>(−0.01)</td>
<td>0.21*</td>
<td>(2.53)</td>
</tr>
<tr>
<td>Women, 15–29 h × Repetitive work</td>
<td>−0.02</td>
<td>(−0.55)</td>
<td>0.00</td>
<td>(0.13)</td>
<td>−0.17</td>
<td>(−0.89)</td>
<td>−0.03</td>
<td>(−0.68)</td>
</tr>
<tr>
<td>Women, 15–29 h × Task discretion</td>
<td>−0.02</td>
<td>(−0.61)</td>
<td>−0.01</td>
<td>(−0.26)</td>
<td>−0.20*</td>
<td>(−1.78)</td>
<td>0.05</td>
<td>(0.84)</td>
</tr>
<tr>
<td>Women, 15–29 h × Work intensity</td>
<td>−0.00</td>
<td>(−0.12)</td>
<td>0.00</td>
<td>(−0.08)</td>
<td>0.04</td>
<td>(0.59)</td>
<td>−0.04</td>
<td>(−0.94)</td>
</tr>
<tr>
<td>Women, 15–29 h × Learning</td>
<td>−0.02</td>
<td>(−0.46)</td>
<td>−0.09**</td>
<td>(−2.64)</td>
<td>−0.14</td>
<td>(−0.92)</td>
<td>−0.08</td>
<td>(−1.22)</td>
</tr>
<tr>
<td>Women, 1–14 h × Repetitive work</td>
<td>0.01</td>
<td>(0.19)</td>
<td>0.02</td>
<td>(0.60)</td>
<td>−0.77**</td>
<td>(−2.23)</td>
<td>−0.00</td>
<td>(−0.05)</td>
</tr>
<tr>
<td>Women, 1–14 h × Task discretion</td>
<td>−0.07</td>
<td>(−1.51)</td>
<td>−0.01</td>
<td>(−0.39)</td>
<td>0.21</td>
<td>(1.12)</td>
<td>−0.08</td>
<td>(−0.85)</td>
</tr>
<tr>
<td>Women, 1–14 h × Work intensity</td>
<td>−0.04</td>
<td>(−0.96)</td>
<td>0.00</td>
<td>(0.05)</td>
<td>0.16</td>
<td>(0.80)</td>
<td>0.11</td>
<td>(1.35)</td>
</tr>
<tr>
<td>Women, 1–14 h × Learning</td>
<td>0.03</td>
<td>(0.64)</td>
<td>−0.07**</td>
<td>(−2.85)</td>
<td>−0.24</td>
<td>(−0.70)</td>
<td>−0.04</td>
<td>(−0.38)</td>
</tr>
</tbody>
</table>

Notes: OLS analyses with a full set of controls. All models control for age, education, industry, public sector, being married or living with a partner, holding a temporary contract, having small children in the household, tenure and tenure squared, and occupational status. Female full-time workers are the reference category. Number of case: 3782 (Britain), 11,419 (Germany), 2685 (Sweden), 2624 (Netherlands).

***Significance level: *p < .001.
**Significance level: *p < .01.
*Significance level: *p < .05.
+Significance level: *p < .10.