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Changes of working hours and job mobility:
the effect of Dutch legislation

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Abstract: Existing American and British research point to the existence of hours constraints on the labour market. Not all employees' preferences with respect to the length of the working week seem to be fulfilled and changes in the number of working hours often coincide with job mobility. Using Dutch panel data, we find that this is also the case for the Dutch labour market, despite its large working time flexibility. We test whether or not Dutch legislation providing employees with the right to adjust working hours within their own job has reduced the correlation between hours changes and job mobility. We find no evidence suggesting that this is indeed the case. We conclude that such legislation is ineffective is removing hours constraints.

1. Introduction

In the Netherlands, annual average working hours per job – incorporating full-time, part-time and flexible jobs, but no overtime – have decreased with 39 percent between 1950 and 2001.[1] This decline can primarily be explained by a shortening of the full-time working week and a rapid growth in the number of part-time jobs. The latter has mainly taken place among women; most men are still in full-time employment. Even though the working week has become smaller and more diverse over the last decades, still not all employees' preferences with respect to the length of the working week are fulfilled. Our research shows that in the year 2002 about a quarter of all Dutch employees report a desire to change their number of working hours.

Dissatisfaction with the number of hours worked is not specific for the Netherlands. Comparable computations show that the dissatisfaction is even larger in Britain: 40 percent of employed men and women wish to change their number of hours worked (Stewart & Swaffield 1997). Furthermore, in a recent article by Böheim and Taylor, it is argued that hours constraints are important determinants of job mobility (Böheim & Taylor 2004). As Böheim and Taylor conclude, constrained workers are more likely to change job with their current employer, to change job with another employer or to leave the labour market. Furthermore, the authors show that adjustments of the working hours in accordance with preferences often coincide with job changes. Similar evidence is discussed by Altonji and Paxson (1992) and Martinez-Granado (2003) for the US and Euwals (2001) for the Netherlands. This type of mobility is not efficient because it involves loss of firm-specific human capital.

In this article, we contribute to this literature by investigating whether or not legislation can contribute to the removal of working hours constraints. Our second contribution to the literature is that, contrary to previous research, we take the view that the choice for a job and the choice for a number of hours worked are taking place simultaneously. Workers do not just 'choose' a number of hours and than a job that goes with it as is often assumed, but they consider job–hours packages. Using a random effects multinomial model, we analyse changes in the job–hours packages of Dutch employees. With the data used in this article – panel data of Dutch-men and -women – we are able to control for both observed and unobserved heterogeneities among workers.

The legislation we refer to is the Adjustment of Working Hours Act that has been introduced in 2000 by the Dutch government in order to facilitate employees' adjustment of working hours. The Act states that employers must honour employees' requests for either upward or downward adjustment of working hours, unless precluded by pressing conflicting business interests. We find that only a small portion of Dutch employees who are not satisfied with the length of their working week successfully adjust their hours. We also find that the association between changes in working hours and job changes was not altered after the introduction of the aforementioned Act. We therefore conclude that such legislation is ineffective in removing hours constraints.

2. The Dutch labour market in international perspective

Since the beginning of the 1970s, most European Union (EU) countries have seen a significant growth in the proportion of part-timers in the total labour force. Exceptions

include the southern European countries, where the incidence of part-time employment has remained low. Figure 1 shows the relative growth in part-time employment in both the Netherlands and the EU. Between the mid-eighties and today, rates of part-time employment rose relatively faster among male workers than female workers, both in the Netherlands and the EU. However, since initial levels of male part-time employment were very low, the share of male part-time employment in total part-time employment remains low. Moreover, at least in the Netherlands, male part-time jobs are often held by students. Part-time work remains, therefore, a predominant feature of female employment. This gender imbalance does not only exist in countries where part-time employment is a rare phenomenon, but also in countries where part-time employment is common, as Figure 2 shows. The 'femaleness' of part-time employment is often associated with women's roles as housewives and mothers. However, the impact of motherhood on women's working patterns is found to differ among countries (Fagan & Rubery 1996: 231–235).

FIGURE 1 ABOUT HERE

In no other EU country is part-time employment as widespread as it is in the Netherlands. Its unique position is illustrated in Figure 2, which shows that the incidence of part-time employment is much higher in the Netherlands than in any other EU member state. Overall, 42 percent of the workforce was employed part-time in the Netherlands in 2001. The next-highest rate is found in the UK (25 percent), closely followed by Sweden (24 percent). The large share of part-timers in the Netherlands today is the result of a combination of labour demand and labour supply factors. On the demand side, the advance in part-time employment can be explained

by a changed attitude among employers who started to see its advantages in a context of extending operating hours and a growing service sector (van Lomwel 2000). On the supply side the entry of married women in the labour force has contributed greatly (Baaijens 1999). We conclude that part-time employment can be considered as an important element of the flexibility of the Dutch labour market.

FIGURE 2 ABOUT HERE

Dutch labour market policy has contributed to the normalisation of part-time employment by introducing various measures to improve the legal position of part-timers, in the last decade. In 1993, existing thresholds that related to the number of hours worked were removed from entitlements to the statutory minimum wage and the minimum holiday allowance. Legislation in 1996 elaborated on the subject, by prohibiting discrimination between employees based upon the number of working hours. This piece of legislation awards part-time employees an explicit right to equal treatment – pro rata – in areas negotiated by the social partners, such as wages, holiday pay and entitlements, bonuses and training. As a result, today, part-timers and full-timers enjoy similar conditions of employment in the Netherlands. Moreover, in many branches of industry – such as the public sector, healthcare, education and services – and in many organisations part-time work has become a normal and accepted phenomenon. In this respect the Dutch situation sharply contrasts to the situation in other countries, where part-time employment is often a form of marginal employment (Visser 2002: 25). Nevertheless, even in the Netherlands, part-timers seem to have less career perspectives and less chances to enter management jobs than

full-timers. In addition, part-time employment seems to be more accepted among women than among men.

A right to change the number of working hours

With the legal position of part-timers being secured, the Dutch government turned its attention towards increasing the number of part-time jobs. One of the reasons for this is that part-time employment is seen as a means for both men and women to combine work and caring activities. It is in this context that the Adjustment of Working Hours Act (*Wet Aanpassing Arbeidsduur*) was introduced in July 2000. Within the European Union only Germany has a comparable law.[2] According to the Dutch Act, employees have a right to request an upward or downward adjustment of working hours in their current job. In principle, employers have to honour such requests unless precluded by pressing conflicting business interests. Although this does not imply that all requests have to be honoured, it does imply that employers have to justify refusals. Employees, however, are under no obligation to motivate their request. This different treatment of employers and employees shows that the legislator has taken side with workers in their struggle to realise their desired working hours. Note that the Act excludes organisations of less than ten employees. However, these companies have to develop their own arrangement. The Act is equally applicable to the market sector and the public sector.

3. Labour supply preferences and hours restrictions

Working hours preferences in the Netherlands have been the subject of several studies over the past decades. These studies, mostly descriptive, reveal that although a

majority of Dutch employees are satisfied with their contractual working hours, some groups of employees report a discrepancy between preferred and actual working hours.[3] In general, women more often than men state a desire to either increase or decrease their working hours.

The fact that employees state that they would like to adjust working hours does not mean that they also make attempts to actually achieve this. Various Dutch studies reveal that a minority of the employees who would like to adjust working hours actually make such a request to their employer. In addition, these studies show that not every request put forward is honoured. In a study among male workers more than halve of the employees with a desire to reduce hours did not follow through (Spaans 1997). The majority of employees did not make attempts because they thought that changing their number of hours worked would not be possible in their position. Of those who did request a change in working hours, 59 percent were successful.

Research by Statistics Netherlands shows that only 22 percent of men and 37 percent of women undertake action when they desire to work fewer hours (Boelens 1997). However, these attempts are reasonably successful: of the men and women who did request a reduction of working time to their employer, 60 and 74 percent, respectively, were successful. Employees seem to be less hesitant to submit requests to extend contractual working hours. The same study reveals that 38 percent of men and 51 percent of women with a desire to work more hours undertook steps to increase their working hours, with respectively 61 and 58 percent of the attempts being successful. Since women are less hesitant to undertake steps than men, they more often experience a change in working hours. For example, between 1996 and 1997, 32 percent of women changed working hours as opposed to 10 percent of men (Schobben 1998).

Using the Dutch Socio-Economic Panel, Euwals (2001) finds that flexibility of working hours within jobs is low among female employees. As a result, women who stay with the same employer have a much smaller chance of adjusting their working hours than women who change jobs. In addition, Baaijens and Schippers (2003) and Fouarge and Baaijens (2003) – using the OSA Labour Supply Panel – find that employees who change jobs succeed significantly more often in realising a desired adjustment of the working week.

How do the Dutch findings compare to other countries? According to a study covering 15 EU member states as well as Norway (Bielenski et al. 2002: 43) halve of the workforce surveyed preferred to work fewer hours and 11 percent preferred to work more hours. However, almost two thirds of full-timers assume that their current employer would not agree to let them work part-time (ranging from 71 percent in Austria to 44 percent in Finland), while almost half of them say that working part-time would harm their career prospects (ranging from 55 percent in Germany to 31 percent in Denmark) (Bielenski et al. 2002: 57).

In their seminal contributions, Altonji and Paxson (1986, 1988, 1992), have studied adjustment of working hours of married women in the US. They distinguish between women who stay in their job and women who change employer and conclude – using the US Panel Study of Income Dynamics – that working hours of married women are two to four times more variable when changing employer than when staying in the same job. Based upon the US National Longitudinal Survey of Youth, Martinez-Granado (2003) finds that for prime aged males the variance of the change in hours is more than six times higher across jobs (defined as a change of employer) than within jobs. Both findings suggest that in the US both male and female employees have difficulties adjusting hours without changing employers. In addition,

Böheim and Taylor (2004) find – using the British Household Panel Survey – that job changers in Great Britain are more able to adjust working hours in line with their preferences than those who stay in the same job.

These findings point to the existence of hours constraints – or at least perceived hours constraints – on the labour market, which result in a strong association between hours change and job mobility: when an adjustment of hours takes place, it will generally involve a job change. In the remainder of this article we analyse the relationship between job mobility and changes in working hours in the context of the Dutch 'part-time economy' and we examine whether or not legislation could remove such restrictions.

4. Data and model

To study the process of working hours adjustments and job changes, longitudinal information on actual and preferred working hours, as well as on job mobility of individual employees is required. Such longitudinal information is available in the OSA Labour Supply Panel, a panel of Dutch persons (aged 16 to 64) that started in 1985. As of 1986, data are collected every other year among some 4,500 persons in more than 2,000 households. In this article, we use nine waves of the panel covering the period 1986–2002. The data include information on demographic characteristics on the level of the individual (gender, age, marital status) and the household (household composition), socio-economic characteristics (labour market status, income), job characteristics (sector of activity, contract type) and human capital indicators (educational level, health status).

The data also include information on actual and preferred working hours, which is crucial for this research. Actual working hours are measured by contractual working hours, that is the hours that employer and employee have agreed upon.[4] We exclude overtime hours because we want to test the effects of the Adjustment of Working Hours Act (see Section 2), which only applies to contractual working hours. Between 1986 and 1998 preferences for working hours were assessed by asking employees for their preferred number of working hours. A comparison of contractual and preferred working hours revealed whether employees were satisfied with their working week or not.[5] However, in 2000 and 2002 respondents were asked directly whether they wanted to work more or less hours.[6] Although this change in the questionnaire has had no measurable effect on the number of employees who want to work fewer hours, it did result in a reduction of the number of employees who want to work more hours (see Fouarge and Baaijens 2003: 38, 52–53).

Modelling hours and job changes

Following the standard neo-classical model of labour supply, previous research generally assumes that workers develop preferences for the number of hours they want to work and adapt their labour supply in accordance with those preferences (Altonji & Paxson 1986, 1988, 1992; Euwals 2001; Euwals et al. 1998; Böheim & Taylor 2004). Job offers – more precisely the jobs that come along with the preferred hours – are taken as exogenous. However, job offers tend to come with set numbers of hours and it would be more realistic to assume that workers look for job–hours combinations that best fit their preferences. For example, a dissatisfaction resulting from a higher number of hours worked than the preferred number of hours can be offset by the fact that the job is an interesting or stimulating one. It is also possible

that the amenities of a particular job are compensated by lower levels of working hours.

The fact that we focus on the effects of legislation on working time changes is also a reason why we look at job–hours packages. Indeed, the Dutch Adjustment of Working Hours Act is not only expected to facilitate changes in the working hours, but also to reduce job mobility resulting from dissatisfaction with respect to the number of hours.[7]

The labour market position of an individual at time t (S_{it}) is characterised by a given number of hours worked in a particular job. In this article, we are interested in the change in this labour market position – change of hours and/or change of job – between t and $t + 2$. A change of hours can mean either an increase or a decrease in the number of hours worked (the Dutch Act aims at facilitating both).[8] Following Nguyen et al. (2000: 11–12), we model the relative transition probabilities between $S_{it} = j$ and $S_{it+2} = j'$ using a random effects panel multinomial logit model with time invariant unobserved heterogeneity. The model is written as follows:

$$P_{ijj'}(t) = \frac{\exp(\beta_{jj'} X_{itj} + \sigma_{jj'} v_{ijj'})}{\sum_{k=1}^{J} \exp(\beta_{jk} X_{itj} + \sigma_{jk} v_{ijk})}, \qquad [1]$$

with $i = 1, \ldots, N, t = 1, \ldots, T, j, j' = 1, \ldots, J$ and X a set of covariates including individual and household characteristics (age, education level, household composition, labour supply of partner), job characteristics (own labour supply, hourly wage rate, type of contract, sector of activity and dummy variables for managers and for work involving heavy duty), preference for working hours and time dummies. $\sigma_{jj'} v_{ijj'}$ are individual effects that have to be estimated. $\sigma_{jj'}$ and $v_{ijj'}$ are assumed to be

mutually independent and independent of the covariates X. $\sigma_{jj'}$ has mean 0 and variance $\sigma_{jj'}^2$. $v_{ijj'}$ is a random variable that follows the standard normal distribution.

To put it otherwise, we model the variable indicating whether:

1. the individual has not changed job nor hours between t and $t+2$ (no job mobility/no change of hours);

2. the individual has changed job but not his or her number of hours worked between t and $t+2$ (job mobility/no change of hours);

3. the individual has not changed job but has changed his or her number of hours worked between t and $t+2$ (no job mobility/change of hours);

4. the individual has changed both job and his or her number of hours worked between t and $t+2$ (job mobility/change of hours).

The transition probabilities in [1] depend on unobserved variables. Therefore, it is necessary to integrate these unobservables out of the likelihood function. To this end, we apply the method of simulated maximum likelihood (Stern 1997, Nguyen et al. 2000: 12).

The interesting aspect of the approach is that it allows for individual unobserved effects for each of the states. This correction for unobserved heterogeneities is of importance because it can be argued that the intrinsic characteristics and motivations of workers who display the various types of mobility are different. For example, one can contend that workers who manage to change their hours without displaying job mobility are more assertive or are more skillful in negotiating.

The model is estimated separately for male and female employees. We exclude self-employed and young people who are employed but engaged in full time education. We also impose an age restriction of 16–62 years-old in year t in order to exclude employees who reach official retirement age (65) by $t+2$.

Testing the effect of legislation

The covariates *X* include time dummies reflecting the economic cycle (1986–1992, the period prior to the 1993 economic downturn in the Netherlands, and 1994–2000, the period of economic prosperity and labour participation growth) and indicating the period after the introduction of the Adjustment of Working Hours Act (2000). By comparing the coefficients for the period following the new Act one can see whether or not there was a change in the pattern of combined hours change and job mobility. We take this as an empirical test for the effect of the Act. If legislation is effective in facilitating changes of working hours within the current job, we expect the coefficient for the post-Act period to be positive for the 'no job mobility/change of hours' transition and to be negative for the 'job mobility/change of hours' transition.

The covariates also include a dummy for workers who are unhappy with their actual number of hours worked – they would like to either work more or fewer hours[9] – as well as the interaction with the period effects. These interaction terms indicate whether or not the association between preferences and mobility has changed over the years. In this sense, it is a stronger test for the effect of the Act on employees' labour market behaviour. If the Act was effective, we would expect that dissatisfied employees more easily adapt their hours without having to change job after the introduction of the Act and that they less often change their hours and their job at the same time.

Selectivity

Selective attrition in the panel is likely to bias the coefficients estimated. In addition, the coefficients will also be biased when the probability of remaining in paid

employment is selective. To account for that, we simultaneously estimated the following selection equation (see Heckman 1979):

$$z^s = (\beta^s X^s + u > 0).$$ [2]

In other words, we only observe the transitions in [1] when $z^s > 0$. $z^s > 0$ if the respondent is employed in two consecutive years. It is equal to 0 if the respondent has left either the panel or paid employment between two consecutive years. The explanatory variables in the selection equation (X^s) include age, household status, time dummies and, in order to identify the model, a dummy variable for new respondents. The idea is that being a new entrant to the panel influences the probability of remaining in the panel, but not the probability of changing working hours. The nonselection hazard is included among the covariates X in [1].

5. Working hours preferences

Are Dutch employees satisfied with the number of hours they work? Not all of them. In 2002, as many as 17 percent of Dutch employees would have preferred to work fewer hours (at least half a day) than negotiated and 6 percent would have liked to extend their working hours. These percentages differ greatly between males and females. A fifth of male employees want to work fewer hours and 3 percent want to work more, whereas the respective percentages among females are 14 and 9. Especially higher educated workers wish to reduce their working week. Over the years 1986–2002, an increasing number of male workers want to reduce their working hours, but the reverse holds for female workers. Despite this trend, as we saw in

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Figure 2, the incidence of male part-time employment has remained low. It seems that male workers cannot, do not dare or do not wish to realise their latent preference.

Of course, at the individual level, some employees do succeed in adjusting their working hours in accordance with their preferences. But to what extent is this taking place? And to what extent does it involve job mobility? Table 1 reports the job mobility–hours change pattern (as discussed in Section 4) for the period 1986–2002. Three main conclusions can be drawn from the table. Firstly, most workers who are dissatisfied with their working hours in one year – they would like to adjust hours either upward or downward – have not changed their hours two years later.[10] Secondly, male employees have a more stable employment pattern than female employees. Male employees work full-time and tend to keep on doing so, irrespective of their preference. Female workers, however, tend to be more flexible and adjust their working hours more easily in accordance with their preferences. Presumably, there is a relationship between males' and females' behaviour: because they are flexible in adjusting their working hours, female workers render it possible for males to remain inflexible. Thirdly, dissatisfaction with the number of hours does not seem to affect job mobility as such. But when they do change their working hours, employees – especially female employees – tend to do that more often together with a job change.

TABLE 1 ABOUT HERE

The conclusion is that there seem to exist barriers hindering the realisation of one's working hours preferences. Additional analyses on our data have shown that employees – especially male employees – who desire to change their working hours

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perceive their job or their employer as the main impediment. When asked for the reason why they did not expect to change their working hours within a year employees typically answer that the 'job does not allow a change' or the 'employer does not allow a change'. However, it can be questioned whether this perception is correct. As discussed above (Section 3), previous research has shown that although employees are reluctant to address the issue of adjusting working hours to their employer, those employees who do so are often successful (Boelens 1997).

6. Changes in working hours and job mobility

Working hours and job changes are driven by four sets of factors: individual preferences for working hours, individual (observed and unobserved) and household characteristics, job characteristics, and labour demand and institutional factors.[11] Changes in working hours are not only driven by individual preferences. Labour demand and institutional constraints also play an important role in shaping working hours. Above, we referred to the demand side as a major contributor to the growth of part-time employment in the Netherlands. However, the incidence of part-time employment still varies strongly among firms. Moreover, as previous research has shown, labour demand constraints can be in effect (Altonji & Paxson 1992). As a consequence, it is not always possible for employees to freely change their number of working hours in accordance with their preferences. Therefore, changes in the number of hours worked often coincide with job mobility. Can this correlation between job mobility and hours change be altered by way of legislation? As explained above, the Dutch case provides a natural experiment to test this hypothesis.

In Table 2, we present estimates for the panel multinomial logit model discussed in Section 4 for male employees. The estimation results for female employees are reproduced in Table 3. Because our main concern here is to test the effect of legislation on hours constraints we only discuss the effects of the relevant variables. The full models are reproduced in the Appendix.

Böheim and Taylor (2004) show that workers who are dissatisfied with their number of hours worked are more likely to be job mobile or to leave the labour market. Because we focus on employees who remain in paid employment, it is important to control for the selection process of employees leaving the labour force. In our models, this correction for selection turns out to be significant for both male and female employees. When we do not correct for selection, we overestimate the effect of dissatisfaction with the number of hours on mobility. Furthermore, unobserved heterogeneity affects the mobility patterns of male (job mobility/no change of hours, as well as no job mobility/change of hours) and female employees (no job mobility/change of hours). As expected, unobserved individual characteristics, such as assertivity, motivation and negotiation skills, are important determinants of labour mobility.

It has been shown already that a preference for a different number of working hours is a strong determinant of changes in actual working hours: individuals with a preference for fewer (more) hours are more likely to reduce (extend) their labour supply (Euwals et al. 1998; Böheim & Taylor 2004; Baaijens & Schippers 2003; Fouarge & Baaijens 2003). With our model we also find that the preferences for different working hours is a strong determinant of hours change, either with or without job mobility. Male employees who are dissatisfied with their actual working hours are significantly more likely to change hours within their current job and they

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are also more likely to change both hours and job. The same holds for female workers, but the effects are even stronger.

TABLE 2 ABOUT HERE

As explained above the Dutch Adjustment of Working Hours Act was introduced with the aim to facilitate working hours changes within the current job. This institutional change is captured in the model through the inclusion of one dummy indicating transitions taking place in the period following the introduction of the Act (2000–2002), and an interaction term indicating whether or not dissatisfaction with the actual number of hours worked has lead to other mobility patterns after the introduction of the Act. The estimates for male employees show that after the introduction of the Act changes of working hours that are not associated with job mobility are more frequent than in the period before the Act. However, simultaneous hours and job change are also more frequent in the post-Act period. The results for female employees are similar.

TABLE 3 ABOUT HERE

A tighter test for the effect of the Act is obtained by looking at the period effects for dissatisfied workers. If the Act has been effective we would expect that dissatisfied workers more often adapt their hours without changing jobs. However, the coefficients show no significant period effects for the various mobility patterns for female or male employees. They are equally likely to change hours and job at the same time after the introduction of the Act than prior to the Act. Furthermore, they are

no more likely to change hours without changing job in the post-Act period than they were before. This is taken as evidence suggesting that the Act has had no effect on the hours change pattern of the target group. This confirms earlier findings, where using simpler estimation methods we showed that the introduction of the Act did not change the association between job mobility and hours increases or hours decreases (Fouarge & Baaijens 2003: 67–80).

7. Discussion

A large body of literature (a.o. Böheim & Taylor 2004) shows that changes in working hours often coincide with job mobility. The conclusion is that labour demand constraints affect the probability of adjusting the number of hours worked. Employees who report that their job or their employer does not allow for changes in working hours are indeed less likely to adjust their working hours in accordance to their preferences (Fouarge & Baaijens 2003: 82–84). With the introduction of the Adjustment of Working Hours Act in 2000 Dutch policy makers expected to smooth away such labour demand constraints. We contribute to the literature by investigating whether or not this piece of legislation has indeed facilitated working hours changes. Our second contribution to the literature is a methodological one. Contrary to previous research we model hours changes and job mobility in their interaction while we also control for unobserved heterogeneity; we use panel multinomial logit modelling techniques.

Part-time employment is common in the Netherlands; the Dutch labour market has the highest rate of part-time employment in Europe. One could therefore expect that, given this flexibility, changes in the number of working hours are easily realised.

However, a quarter of Dutch employees are dissatisfied with the number of hours they currently work. They would prefer to work either more or fewer hours. Our analyses on data from the OSA Labour Supply Panel show that even in the Dutch part-time economy, only a small portion of employees who would like to adjust working hours actually achieve this. Between 1986 and 2002, only 15 to 27 percent of employees with a desire to work fewer hours and 22 to 35 percent of employees with a desire to work more hours have adjusted their working hours accordingly two years later. We found large differences between male and female workers. Male employees show more stable working hours patterns, whereas women show a more flexible pattern. We deduced that men and women influence each other: because women are flexible in adjusting their working hours, they allow their male partners to remain inflexible.

With the introduction of the Adjustment of Working Hours Act we expected adjustment of working hours to be less often realized by means of job mobility. However, for workers (whether male or female) who are dissatisfied with their number of hours – the target group of this new Act – we found no significant effect of the legislation. They are equally likely to change hours and job and, more importantly, no more likely to change hours without changing job after the introduction of the Act than prior to the Act.

Policy implications

Although the Dutch labour market, with its large part-time segment, is a particular one, it does not stand alone in Europe. The UK and Sweden, for example, also have a large share part-time employment. Despite this apparent working time flexibility, hours changes within the job still seem to be difficult in the Netherlands. What lessons can be learned from the Dutch experience? First of all we need to give a word of

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caution. In our study, the period following the introduction of the new Adjustment of Working Hours Act is relatively short (two years). It is possible that the positive effects of such policy measures only show in the longer run. For example, it is also possible that the new legislation will induce a further 'normalisation' of part-time employment and more transitions between full time and part-time jobs during the course of employees' life. However, it is difficult to evaluate such a long-term effect because it can also come from other sorts of contextual changes that one cannot control for.

Many employees with a desire to adjust working hours are reluctant to put forward such requests. Our results show that male employees especially think that their employer or their job are important obstacles in realising a preference for working fewer hours. They seem to fear that their employer does not approve or to think that it is not possible in their job, although this may objectively not be the case. For employees in management positions it is often the norm to work full time. Being employed in a full-time job is also often seen as an indication of loyalty to the firm. It is possible that both employees and employers have such perceptions. Nevertheless, we doubt whether it is a task for policy makers to change such perceptions. Moreover, previous research has indeed shown that although employees are reluctant to request adjustment of working hours, their attempts are reasonably successful.

Over the years employers in the Netherlands have realised the advantages of part-time employment as a form of flexible labour and as a way of increasing labour supply in a situation of shortages in the labour market. After all, part-time employment makes it possible to combine paid employment with care. Nevertheless, both employer and employee behaviour are likely to be different in the various phases of the business cycle. When the labour market is tight, an employer will be more

willing to grant an employee's request for a change in working hours rather than see him or her leave the firm for another job with the preferred number of hours. Under these conditions employers and employees will often manage to work out a solution that benefits both and there is no need for legislation. In economic downturn, however, employees can be expected to be reluctant addressing issues of adjustments of working hours: on the one hand, there is little scope for increases in working hours and, on the other hand, requesting a reduction in working hours would be issuing a wrong signal to one's employer. From that perspective also, whether or not employees have legal back up does not make much difference.

Notes

[1] From 2,177 hours to 1,330 hours per job per year (Statistics Netherlands; www.statline.nl).

[2] This law came into force in January 2001 and is called the Act on Part-time Work and Fixed-Term Contracts (*Gesetz über Teilzeitarbeit und befristete Arbeitsverträge*).

[3] For an overview, see Baaijens (2000).

[4] It accounts for arrangements for collective working time reduction, which are common in the Netherlands.

[5] Or, to put it in Böheim and Taylor's (2004) terms, whether employees are over- or underemployed.

[6] It is important to note that, in all years, respondents had to assume that their hourly wage and the labour supply of other household members remained unchanged when reporting their preferred number of working hours. It was made explicit that working fewer (more) hours implied a reduction (increase) in income.

[7] Job mobility means both within-firm mobility and change of job and employer. In Fouarge and Baaijens (2003) we make a distinction between both types of mobility and their association with changes in hours worked. The conclusions are similar to the ones drawn in this article.

[8] In the model, a change in the number of hours worked is defined as a change of at least 4 hours. This is not only done in order to account for small measurement errors, but also because it is assumed that small adjustments in the working hours are easily negotiable with the employer.

[9] The difference between preferred and actual number of hours is at least 4 hours.

[10] Note that additional analysis showed that it seems easier to increase working hours than to decrease them.

[11] Preferences are influenced by individual and household characteristics, on the one hand, and job characteristics, on the other, but such characteristics also have a direct effect on the probability that an individual will change its labour supply.

References

Altonji, J.G. and Paxson, C.H. (1986). Job characteristics and hours of work. In: Ehrenberg R.G. (red.). *Research in labor economics* (1–55). Greenwich: Westview Press.

Altonji, J.G. and Paxson, C.H. (1988). Labor supply preferences, hours constraints and hours-wage trade-offs. *Journal of Labor Economics*, 6 (2): 254–276.

Altonji, J.G. and Paxson, C.H. (1992). Labor supply, hours constraints and job mobility. *The Journal of Human Resources*, 27 (2): 256–278.

Baaijens, C. (1999). Deeltijdarbeid in Nederland. *Tijdschrift voor Arbeidsvraagstukken*, 15 (1): 6–18.

Baaijens, C. (2000). Werkgevers en de wensen rond arbeidstijden bij werknemers in Nederland. *Sociale Wetenschappen*, 43 (1): 73–96.

Baaijens, C. and Schippers, J.J. (2003). The unfulfilled preference for working fewer hours in the Netherlands, paper presented at the ESPE conference, June 13-15, 2003, New York City (USA).

Bielenski, H., Bosch, G. and Wagner, A. (2002). *Working time preferences in sixteen European countries*. Dublin: European Foundation for the improvement of Living and Working Conditions.

Boelens, A. (1997). Meer en minder willen werken. *Sociaal Economisch Maandstatistiek*, 14 (5): 26–28.

Böheim, R. and Taylor, M. (2004). Actual and preferred working hours. *British Journal of Industrial Relations*, 42 (1): 149–166.

European Commission (1996). *Employment in Europe 1996*. Luxemburg: Office for official publications of the European Communities.

European Commission (2000). *Employment in Europe 2000*. Luxemburg: Office for official publications of the European Communities.

European Commission (2002). *Employment in Europe 2002: Recent trends and prospects*. Luxemburg: Office for official publications of the European Communities.

Euwals, R. (2001). Female labour supply, flexibility of working hours, and job mobility. *The Economic Journal*, 111: c120–c134.

Euwals, R., Melenberg, B. and van Soest, A. (1998). Testing the predictive value of subjective labour supply data. *Journal of Applied Econometrics*, 13 (5): 567–585.

Fagan, C. and Rubery, J. (1996). The salience of the part-time divide in the European Union. *European Sociological Review*, 12 (3): 227–250.

Fouarge, D. and Baaijens, C. (2003). *Veranderende arbeidstijden. Slagen werknemers er in hun voorkeuren te realiseren?* Tilburg: OSA-publicatie A199.

Heckman, J. (1979). Sample selection bias as a specification error. *Econometrica,* 47 (1): 153–161.

van Lomwel, G. (2000). *Essays on labour economics*. Amsterdam: Thela Thesis.

Martinez-Granado, M. (2003). *Testing labour supply and hours constraints*. University of Madrid: CEMFI, October 2003.

Nguyen van, P., Kaiser, U., and Lainey, F. (2000). The performance of German firms in the business related services sector: a dynamic analysis. Mannheim: ZEW discussion paper 00-38.

Schobben, C. (1998). Meer of minder uren werken. In: CBS, *Sociaal-Economische Dynamiek 1998* (29–33). Den Haag: Sdu.

Spaans, J. (1997). *Tussen wens en realiteit: onderzoek naar de wijze waarop mannelijke werknemers hun deeltijdwens en/of wens tot calamiteitenverlof realiseren en de belemmeringen daarbij*. Den Haag: VUGA.

Stern, S. (1997). Simulation-based estimation. *Journal of Economic Literature*, 35 (4): 2006–2039.

Stewart, M. and Swaffield, J. (1997). Constraints on the desired hours of work of British men. *Economic Journal*, 107: 520–535.

Visser, J. (2002). The first part-time economy in the world: a model to be followed? *Journal of European Social Policy*, 12 (1): 23–42.

Appendix: Full model and selection equations

TABLE A1 ABOUT HERE

TABLE A2 ABOUT HERE

TABLE A3 ABOUT HERE

Figure 1: Percentage of part-time employment* in the Netherlands and the European Union, 1985–2001
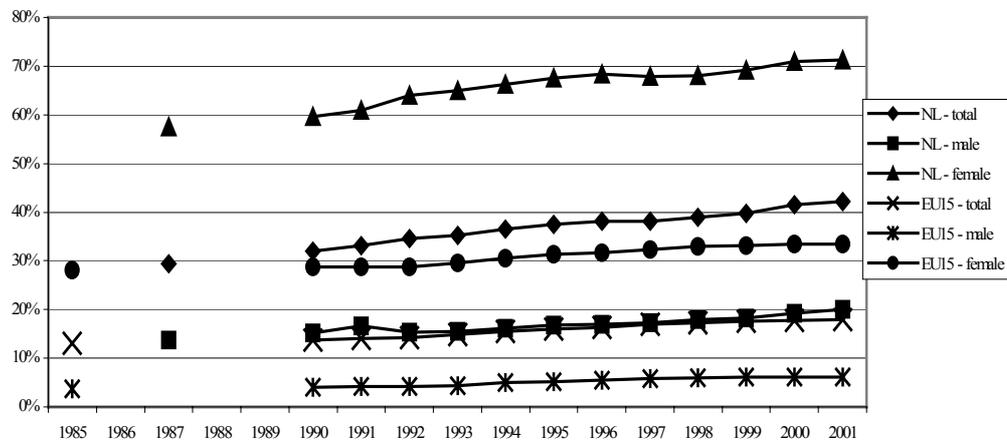
* Self-reported status.

EU15 = 15 member states of the EU (see Figure 2), NL = Netherlands. EU15 data for 1990 and 1991 exclude the former DDR.

Source: European Commission (2002: 173–188; 2000: 85, 95; 1996: 147).

Figure 2: Percentage of part-time employment*, EU countries, 2001
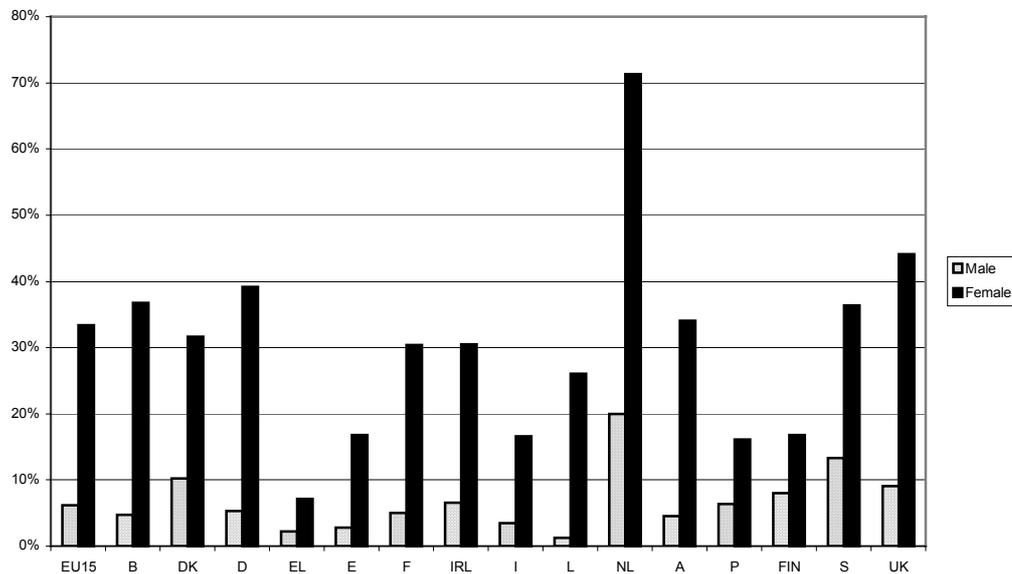
* Self-reported status.

EU15 = 15 member states of the EU, B = Belgium, DK = Denmark, D = Germany, El = Greece, E = Spain, F = France, IRL = Ireland, I = Italy, NL = Netherlands, A = Austria, P = Portugal, FIN = Finland, S = Sweden and UK = United Kingdom.

Source: European Commission (2002: 173–188).

Table 1: Hours and job mobility patterns of Dutch employees, percentages and absolute numbers (in brackets), 1986–2002

	Males		Females	
	Satisfied with number of hours	Dissatisfied with number of hours[2]	Satisfied with number of hours	Dissatisfied with number of hours[2]
No job mobility / no change of hours[1]	70 (n=4,119)	63 (n=1,365)	57 (n=1,851)	42 (n=660)
Job mobility / no change of hours[1]	22 (n=1,296)	22 (n=502)	15 (n=482)	15 (n=232)
No job mobility / change of hours	5 (n=310)	7 (n=148)	14 (n=450)	19 (n=302)
Job mobility / change of hours	3 (n=188)	8 (n=179)	14 (n=435)	24 (n=373)
Total	100 (n=5,913)	100 (n=2,194)	100 (n=3,218)	100 (n=1,567)

1) No change or change is less than 4 hours.

2) Preferred number of hours is at least 4 hours more or less than actual number of hours.

Table 2: Selection of parameters for the probability of job and hours mobility between t and $t + 2$, male employees, 1986–2002[*]

Reference: No job mobility/change of hours	Job mobility/ no change of hours		No job mobility/ change of hours		Job mobility/ change of hours	
	Parameter	t-value	Parameter	t-value	Parameter	t-value
Satisfaction with hours and time						
Dissatisfied with number of hours	0.091	0.75	0.624	3.11	0.631	2.65
Time dummies (ref: 1994–2000)						
1986–1994	0.263	2.69	0.384	1.95	0.461	2.04
2000–2002	0.068	0.49	1.171	5.75	0.772	2.87
Interaction term (ref: dissatisfied with number of hours × 1994–2000)						
Dissatisfied with hours × 1986–1994	0.015	0.10	0.024	0.09	0.026	0.09
Dissatisfied with hours × 2000–2002	0.120	0.44	−0.477	−1.37	0.403	0.97
Selection (see Appendix, Table A3)	0.979	3.43	1.535	3.09	1.832	3.14
Individual unobserved effects	−0.415	−4.19	0.572	3.47	−0.214	−1.03

* For full model see Table A1.

Table 3: Selection of parameters for the probability of job and hours mobility between t and $t + 2$, female employees, 1986–2002[*]

Reference: No job mobility/change of hours	Job mobility/ no change of hours		No job mobility/ change of hours		Job mobility/ change of hours	
	Parameter	t-value	Parameter	t-value	Parameter	t-value
Satisfaction with hours and time						
Dissatisfied with number of hours	0.154	0.92	0.815	5.22	1.084	7.09
Time dummies (ref: 1994–2000)						
1986–1994	0.319	2.06	0.039	0.25	0.506	3.02
2000–2002	0.326	1.73	0.428	2.43	0.962	5.23
Interaction term (ref: dissatisfied with number of hours × 1994–2000)						
Dissatisfied with hours × 1986–1994	−0.094	−0.44	−0.159	−0.76	−0.213	−1.06
Dissatisfied with hours × 2000–2002	0.511	1.58	0.006	0.02	−0.188	−0.63
Selection (see Appendix, Table A3)	1.388	2.87	−0.305	−0.61	2.496	5.38
Individual unobserved effects	−0.046	−0.20	0.464	3.04	0.219	1.22

* For full model see Table A2.

Table A1: Parameters for the probability of job and hours mobility between t and $t + 2$, male employees, 1986–2002

Reference: No job mobility/change of hours	Job mobility/ no change of hours		No job mobility/ change of hours		Job mobility/ change of hours	
	Parameter	t-value	Parameter	t-value	Parameter	t-value
Individual and household characteristics						
Age	0.014	0.41	−0.054	−0.99	−0.052	−0.84
Age squared (/100)	−0.103	−2.29	0.076	1.13	0.036	0.46
Household type (ref: couple, no child)						
Couple with child	−0.048	−0.62	0.108	0.68	−0.043	−0.24
Single	−0.342	−2.83	0.201	1.01	0.035	0.15
Educational level (ref: secondary)						
Lower education	−0.282	−2.09	0.028	0.13	0.015	0.06
High education/university	0.092	0.99	0.030	0.19	0.171	0.97
Number of hours worked by partner	0.003	1.43	0.006	1.39	0.012	2.64
Job characteristics						
Part-time job	−0.590	−3.71	1.717	12.08	1.884	12.54
Ln (hourly wage)	0.244	1.88	0.487	2.44	−0.155	−0.71
Permanent contract	−0.631	−5.44	−0.571	−2.83	−1.015	−5.50
Manager	0.305	4.55	−0.161	−1.28	0.090	0.62
Heavy duty	−0.062	−0.83	0.325	2.41	0.145	0.96
Dissatisfied with work	0.660	6.46	0.509	2.89	0.646	3.45
Sector (ref: industry or agriculture)						
Commerce, catering, transport	0.060	0.72	0.071	0.44	−0.108	−0.57
Financial business services	0.154	1.43	−0.009	−0.04	0.188	0.79
Other services	0.038	0.23	0.305	1.10	0.768	2.91
Public sector	0.167	1.63	−0.081	−0.39	0.066	0.27
Education	−0.490	−2.91	1.060	5.22	1.039	4.44
Healthcare	0.049	0.33	0.132	0.51	0.521	2.00
Satisfaction with hours and time						
Dissatisfied with number of hours	0.091	0.75	0.624	3.11	0.631	2.65
Time dummies (ref: 1994–2000)						
1986–1994	0.263	2.69	0.384	1.95	0.461	2.04
2000–2002	0.068	0.49	1.171	5.75	0.772	2.87
Interaction term (ref: dissatisfied with number of hours × 1994–2000)						
Dissatisfied with hours × 1986–1994	0.015	0.10	0.024	0.09	0.026	0.09
Dissatisfied with hours × 2000–2002	0.120	0.44	−0.477	−1.37	0.403	0.97
Selection (see Table A3)	0.979	3.43	1.535	3.09	1.832	3.14
Intercept	−1.194	−1.56	−4.845	−3.73	−2.667	−1.85
Individual unobserved effects	−0.415	−4.19	0.572	3.47	−0.214	−1.03

N = 11,271

Pseudo-R^2=0.104; Log likelihood = −5818.55

Table A2: Parameters for the probability of job and hours mobility between t and $t + 2$, female employees, 1986–2002

Reference: No job mobility/change of hours	Job mobility/ no change of hours		No job mobility/ change of hours		Job mobility/ change of hours	
	Parameter	t-value	Parameter	t-value	Parameter	t-value
Individual and household characteristics						
Age	0.087	1.98	−0.043	−0.97	0.161	3.60
Age squared (/100)	−0.137	−2.43	0.036	0.64	−0.254	−4.36
Household type (ref: couple, no child)						
Couple with child	−0.294	−1.99	−0.373	−2.68	−0.224	−1.76
Single	0.154	0.88	−0.473	−2.64	−0.453	−2.65
Educational level (ref: secondary)						
Lower education	−0.021	−0.09	0.079	0.39	0.080	0.38
High education/university	0.131	1.03	0.319	2.46	0.374	3.06
Number of hours worked by partner	0.004	0.94	−0.005	−1.28	−0.007	−1.86
Job characteristics						
Part-time job	−0.472	−4.21	0.540	4.42	0.694	5.94
Ln (hourly wage)	−0.204	−1.34	−0.153	−1.05	−0.255	−1.81
Permanent contract	−0.642	−4.61	−0.454	−3.13	−0.991	−7.88
Manager	0.248	2.14	−0.320	−2.39	−0.124	−0.98
Heavy duty	−0.178	−1.55	−0.023	−0.20	−0.126	−1.16
Dissatisfied with work	0.786	5.28	0.322	1.91	0.770	5.32
Sector (ref: industry or agriculture)						
Commerce, catering, transport	0.243	1.31	0.325	1.69	−0.112	−0.62
Financial business services	0.336	1.72	−0.176	−0.77	−0.171	−0.84
Other services	0.207	0.91	0.309	1.38	0.226	1.09
Public sector	0.298	1.39	−0.010	−0.04	−0.037	−0.17
Education	0.211	0.96	0.446	2.04	−0.234	−1.07
Healthcare	0.159	0.89	0.053	0.29	−0.032	−0.19
Satisfaction with hours and time						
Dissatisfied with number of hours	0.154	0.92	0.815	5.22	1.084	7.09
Time dummies (ref: 1994–2000)						
1986–1994	0.319	2.06	0.039	0.25	0.506	3.02
2000–2002	0.326	1.73	0.428	2.43	0.962	5.23
Interaction term (ref: dissatisfied with number of hours × 1994–2000)						
Dissatisfied with hours × 1986–1994	−0.094	−0.44	−0.159	−0.76	−0.213	−1.06
Dissatisfied with hours × 2000–2002	0.511	1.58	0.006	0.02	−0.188	−0.63
Selection (see Table A3)	1.388	2.87	−0.305	−0.61	2.496	5.38
Intercept	−2.721	−2.54	0.207	0.19	−4.616	−4.34
Individual unobserved effects	−0.046	−0.20	0.464	3.04	0.219	1.22

N = 7,215

Pseudo-R2=0.064; Log likelihood = −4922.27

Table A3: Results from the selection equation for males and females

	Males		Females	
	Parameter	t-value	Parameter	t-value
Age	0.105	11.86	0.074	7.02
Age squared	−0.133	−12.35	−0.086	−6.35
Household type				
Couple with child	0.068	2.10	−0.015	−0.34
Divorced/widowed	−0.176	−2.21	−0.106	−1.59
Single	−0.202	−5.02	−0.197	−4.48
New respondent	−0.085	−3.43	−0.050	−1.67
1988 (ref.: 1986)	−0.031	−0.70	−0.265	−4.47
1990	0.050	1.11	−0.028	−0.46
1992	0.058	1.28	−0.087	−1.49
1994	0.029	0.63	−0.162	−2.82
1996	−0.326	−7.32	−0.351	−6.18
1998	−0.730	−16.58	−0.704	−12.48
2000	−0.129	−2.80	−0.173	−3.03
Intercept	−1.465	−8.17	−1.031	−5.15