# Employees’ Preferences for more or fewer Working Hours 

The Effects of Usual, Contractual and Standard Working Time, Family Phase and Household Characteristics, and Job Satisfaction

AIAS Research Report 02/15
December 2002

Kea Tijdens

Amsterdam Institute for Advanced Labour Studies

Universiteit van Amsterdam

This paper is part of the NEWLMSTATS project (Constructing a New Cross-National Architecture for Labor Market Statistics, a US-EU research group, 2001-03).
The project is partly funded by the Ford Foundation.

## © Kea Tijdens

Amsterdam, December 2002
This paper can be downloaded
www.uva-aias.net/files/aias/RR15.pdf

## Table of Contents

ABSTRACT ..... 5
1 INTRODUCTION. ..... 7
2 INTRODUCING THE CONCEPTS OF WORKING TIME. ..... 8
2.1 Definitions of working hours ..... 8
2.2 Working time preferences in the EU and the Netherlands ..... 9
3 EXPLAINING WORKING TIME PREFERENCES ..... 10
3.1 Working time preferences and the standard working week ..... 10
3.2 Working time preferences and the usual working hours ..... 11
3.3 Working time preferences and household time ..... 11
3.4 Working time preferences and job-related factors ..... 12
4 MODEL AND DATASET ..... 14
$4.1 \quad$ Hypotheses and methodology ..... 14
4.2 The data ..... 15
4.3 Operationalization and measurement ..... 16
$4.4 \quad$ Descriptive findings ..... 17
5 PREDICTING WORKING HOURS SATISFACTION ..... 18
6 PREDICTING A PREFERENCE FOR MORE OR FEWER WORKING
HOURS ..... 22
6.1 The analysis ..... 22
6.2 The impact of working time characteristics ..... 22
6.3 The impact of gender, life cycle, household and wages ..... 24
6.4 The impact of job characteristics ..... 25
7 CONCLUSION ..... 26
References ..... 28
APPENDIX ..... 30

# Employees' Preferences for longer or fewer Working Hours 

The Effects of Usual, Contractual and Standard Working Time, Family Phase and Household Characteristics, and Job Satisfaction ${ }^{1}$


#### Abstract

This study seeks explanations for working time preferences, using cross-sectional multinomial logits for the 2001/2002 Wage Indicator dataset ( $\mathrm{N}=21,727$ ). As expected, the preferences are predominately influenced by working hours' characteristics, showing that employees with long hours prefer to work shorter hours and that short-hours workers prefer longer hours. New is the finding that salaried employees indeed want to reduce hours whereas hourly paid employees prefer to work longer hours. In contrast to public opinion, female employees show a better fit between preferred and contractual hours compared to male employees. Particularly male employees whose children have left home prefer working fewer hours. The study further shows that wage rates have a large impact on working time preferences, the lowest earnings category preferring far more often longer hours. Regarding job characteristics, employees in a challenging job less often prefer fewer hours. The employees reporting conflicts at the workplace and insufficient staffing more often prefer fewer hours.


[^0]
## 1 Introduction

Working time preferences have been investigated recently. In the United States, such research was stimulated by Juliet Schor's (1991) study on the 'Overworked American'. In their study of the 1992 CPS data, Jacobs and Gerson (1998) question what the overworked Americans want. According to their data nearly half of the American workers indicated that their usual working week was longer than their ideal hours. Approximately one third was satisfied with their hours and the remaining group preferred longer hours. The 'overworked European' does not seem to exist. Nevertheless, the percentages of workers in the European Union preferring other hours are almost similar to those in the US, according to the 1998 Employment Options of the Future Survey, covering 15 EU member states plus Norway (Bielenski, Bosch and Wagner, 2002, 43). Exactly half of the workforce surveyed preferred fewer hours, slightly over one third was satisfied with their current hours, and the remaining group preferred longer hours.

A number of studies have addressed the macro-economic aspects of working time preferences. If these preferences would be realized, how would they affect employment or unemployment rates and would labor volume have to be reduced, increased or just redistributed? What would be the implications for employment policies? Bielenski et al $(2002,28)$ conclude that, since most employees desire shorter working hours, the preference in Europe is for a combination of high labor market participation and short individual working hours rather than the American combination of high employment rates and long working hours. In a book on labor-market capacity, like this one, working time preferences and the obstacles to realize these preferences therefore need to be addressed. Although a study of employer-side restrictions to fulfil working time preferences would be equally important, this chapter only addresses the employee-side determinants of working time preferences.

Regardless the high percentages of workers in the industrialized countries whose ideal working hours do not match their usual hours, few studies have addressed the factors that may determine individual working time preferences. This study aims to expand this knowledge by modelling individual working time preferences from the current working hours, the household and family characteristics, and the job characteristics, using Dutch employee survey data. Section 2 provides the reader with a brief overview of working hours in the EU, particularly in the Netherlands. This section details the definitions of working time and presents a description of previous research results in relation to the explanatory model used in this chapter. The model is detailed in section 3, describing the hypotheses, the operationalization and measurement of indicators, the methodology, and the data. Section 4 presents the results of the analysis, aiming to identify which workers are satisfied with their working hours. In section 5, the focus moves towards the workers preferring longer or fewer hours, testing hypotheses for three clusters of explanatory variables. Conclusions are drawn in section 6.

[^1]
## 2 InTRODUCING THE CONCEPTS OF WORKING TIME

### 2.1 DEFINITIONS OF WORKING HOURS

In their paper, Evans, Lippoldt \& Marianna (2001) distinguish four definitions of hours of work. The first one refers to the actual hours of work in productive activities, whether paid or unpaid. This definition is particularly important for macro-economic analyses. The second definition refers to the usual hours of work, whereby the reported hours are not influenced by unusual or irregular events, such as a short period of overtime working, or short-hours working, holidays and sicknesses. This definition is mostly used in questionnaires. Third, in countries where the working week is primarily regulated by law, it is common to refer to the concept of legal hours. This applies for example to France, where recently the 35 -hour week has been introduced by law. Fourth, in countries where the working week is regulated in collective bargaining agreements, it is common to refer to the standard hours or the standard working week ${ }^{3}$. This is for example the case in the Netherlands, where the standard working week is agreed upon in collective bargaining and excessive working hours are limited by legislation. In this chapter, a fifth definition is used. The number of hours laid down in the individual labor contract is referred to as the contractual hours of work. As a consequence, overtime is defined as the difference between the usual hours of work minus the contractual hours. Finally, measuring hours of work on an annual basis implies control for holidays and for unemployment or out-of-work periods. This requires questions about the number of holidays and periods out of work in a given reference period, which is mostly last year. For an extended overview how information on working hours is collected, see Stevenson (2002).

Measuring working time preferences may be even more difficult than measuring working time. Employees' working time preferences may address the standard working week, the usual hours of work, or the contractual hours of work. It is important to distinguish these three categories, and be aware that these categories cannot overlap. Preferences with regard to the reduction of the standard working week are realized in collective bargaining or in legal settings, and may lead to an increase in hourly wages. Preferences with regard to the usual hours of work probably primarily refer to overtime work and may or may not affect wages, depending whether the overtime is paid or unpaid. Preferences with regard to the contractual hours of work may be difficult to realize in countries where it is very common to work fulltime and where the full-time working week is equal to the standard working week. In countries with high rates of part-time employment or with variation in the contractual fulltime working week, a preference for individual reduction of the contractual hours may be a realistic option. In those cases, this reduction will affect the weekly or monthly wages but not the hourly wages.

In times with the reduction of the standard working week high on the political agenda, surveys measuring the preferences for a collective working time reduction were very sensitive to the precise wording of the question regarding a reduction of hours with or without full wage compensation (Nätti, 1995). Similarly, survey questions that refer to individual working hours are sensitive. Kahn and Lang (1995) describe how Statistics Canada in a supplement of

[^2]its 1985 Labor Force Survey used a long introduction to the questions on desired hours to ensure that respondents understood that hypothetical hours reductions would imply prorated salary changes. Survey questions that just ask for ideal hours lead to higher percentages of individuals preferring fewer hours than specified questions do. At least, that has to be concluded when comparing percentages in various studies. In the 1998 EU plus Norway Survey, $50 \%$ of the workforce preferred fewer hours. Yet, in the 1994 labor market surveys of the European Commission reports only $29 \%$ of the workforce preferred fewer hours (Contensou and Vranceanu, 2000). The 1994 survey question included explicitly that wage rates would remain unchanged. In conclusion, statistics on working time preferences have to be taken with caution.

### 2.2 WORKING TIME PREFERENCES IN THE EU AND THE NETHERLANDS

The standard working week in the EU varies from 35 to 40 hours, depending on country and industry. Special interest groups may even have a shorter standard working week, such as employees in shift work. With its 35 -hour week France has one of the shortest standard working weeks. In the Netherlands, the standard working week varies from 32 hours in shift work to 40 hours in branches with either low profit margins, such as transport, or labor shortages, such as the IT industry. The vast majority of the Dutch employees, however, are employed in a branch or company with a standard working week of 36 to 38 hours.
According to the 1998 EU plus Norway Survey, four-fifths of the European employees in paid employment work full-time at a 35 -hours threshold. Only 62 percent of women do so, compared with 91 percent of men (Bielenski et al, 2002). The Netherlands is known for its high rates of part-time employment, particularly in the female workforce, but also in the male work force. Indeed, the Wage Indicator Survey - which will be discussed in section 3 - reveal that only 53 percent of the female workforce and 88 percent of the male workforce is in fulltime employment and has a labor contract for 35 hours or more.
In the EU plus Norway, the majority of full-time workers would prefer to reduce their working hours, although only one third felt their employer would view such a request favorably (Bielenski et al, 2002). Only one-third of part-timers would choose to work less. In the Netherlands, these percentages are lower. Here, 42 percent of full-timers and 22 percent of part-timers would prefer to reduce their working hours. 56 percent of the employees that filled in the Wage Indicator survey are satisfied with their working hours, 37 percent prefer to work fewer hours and only 7 percent prefer to work longer hours. These figures are in accordance with findings in another large Dutch survey (Otten and Smulders, 2002). Probably, the Dutch part-time economy facilitates a good fit between employers' demands and employees' preferences with regard to working hours. In the EU plus Norway, fulfilment of the general time preferences would reduce the average working week to 34.5 hours. The Wage Indicator Survey has no data on the preferred number of hours, but when for example an average preference of 2 hours more or less is assumed, the average contractual working week would be reduced to 33.9 hours, and to 37.5 hours when usual working hours are counted. In this respect, the Dutch pattern do not deviate much from that of other EU member states.

## 3 EXPLAINING WORKING TIME PREFERENCES

### 3.1 WORKING TIME PREFERENCES AND THE STANDARD WORKING WEEK

For over two decades, reduction of the standard working week has been a major issue in collective bargaining and employment policies in many European countries, primarily as a means of reducing unemployment. At the end of the 1970s and in the early 1980s, standard working hours per week were reduced in a wide range of industries in countries such as Belgium, the UK, France, Germany and the Netherlands (Bosch and Lehndorff, 2001). During the 1990s, reduction of working time has been on the policy agenda in many EU member states (Tergeist, 1995; Taddei, 1998). In 1998, France took the lead and, for the sake of job creation, the French government agreed upon new legislation for a 35 -hour standard working week, known as the Law Aubry (Cette, 2000; Heyer and Timbeau, 2000). In the Guidelines for Member States Employment Policies 2000, the European Commission urged social partners to agree and implement a process of modernizing the organization of work, including issues such as the annualization of working time, the reduction of working hours, the reduction of overtime, and the development of part-time work.
Many studies have addressed macro-economic consequences of working time preferences, such as the redistribution of the volume of work and the reduction of unemployment (e.g. Bluestone and Rose, 1998). If the redistribution of the volume of work would be large, the consequences for the economy in general and for employment policies in particular would be far-reaching. Other studies have addressed the macro-economic consequences of working time reduction. In an analysis of aggregate data of 11 OECD countries, Kapteijn, Kalwij and Zaidi (2002) find a small positive direct effect of the reduction of working hours on employment, but this is reduced to a small negative long-term effect on employment due to an increase in wages. In a study of the reduction of a weekly working time in West-German industries, Dreger, Fuchs and Kolb (2001) find no impact on the level of employment, rather a rise in the firm's demand for overtime hours.

Since the 1970s, the preferences of employees to work fewer hours rather than earn more have been studied extensively (e.g. OECD 1998: 166-7). In 1985, in European Union member states many more people expressed a preference for higher earnings over fewer hours, except for Denmark and the Netherlands. In 1994, an increased preference for a reduction of hours was apparent in all EU countries, except for Greece, Italy and Spain. Again, the highest percentages in favor of fewer hours were found in Denmark and the Netherlands: 66 and 52 percent respectively. In other EU countries, the percentages of workers preferring higher earnings still outnumbered those preferring fewer hours. In the United Kingdom, for example, nearly twice as many workers preferred higher earnings to fewer hours.

Differences in working hours across countries must be understood in the context of countryspecific institutional arrangements (OECD, 1998; Bielenski et al, 2002). According to the OECD (1998), countries with a more developed collective bargaining system have shown a faster decline in working hours. A correlation exists between the level of average annual working hours per person and the desire for fewer hours: countries with relatively low annual hours tend to be those in which the average preference for reduced hours is relatively strong and that for higher earnings relatively weak. Although the current study focuses on one
country only, the impact of the standard working week has to be taken into account in analyzing predictors of the preferences for individual working hours.

### 3.2 WORKING TIME PREFERENCES AND THE USUAL WORKING HOURS

According to the 1998 EU plus Norway Survey, the general preference of both men and women is discontinue to the extremes of very short part-time and long full-time hours (Bielenski et al, 2002). Others studies also reveal a similar large impact of actual hours on preferred hours (Otten and Smulders, 2002; Euwals and Van Soest, 1999). The longer the working week, the higher is the preference for fewer working hours, and the shorter the working week, the higher the preference for longer hours. According to Bielenski et al (2002), for the male workforce current working time exerts the greatest influence on the preference of other working hours.
Some employees are paid on a salaried basis, thus per month or other period, rather than on an hourly basis. According to Ehrenberg and Smith (1997), "the term is used this way merely for convenience and is of no consequences for most purposes". Yet, the distinction between salaried and hourly paid employees is not meaningless when it comes to analyzing working hours' preferences. Salaried employees may express more often preferences for fewer working hours, whereas the reverse may hold for hourly paid employees. Yet, by working long hours, salaried employees may invest in their career, thus in future higher earnings. Even when they are not paid, long hours may convince a superior of the employee's willingness for a career.
When working time preferences are influenced by current working hours, the factors affecting current working hours need to be taken into account. In this respect education is a major factor. Higher levels of education go along with longer working hours, as Bluestone and Rose (1998) indicate in their study of the upward trend in working hours in the US. According to the authors, higher wages can induce longer hours or better-educated workers may enjoy their job more. The latter group is also probably more likely to fall in the category of salaried workers. The authors argue that individuals may have a long-run income objective, and if they fear a future lay-off, they might attempt to increase their current working hours. Thus, it is likely that current working hours will be influenced by education and by job insecurity, or at least by the expectation of job insecurity.
In conclusion, for the current study, it has to be assumed that the standard working week, the contractual working hours, and the overtime hours will influence the individual working hours' preferences. It is also important to identify the salaried workers and the hourly paid workers, assuming that their preferences differ. For the salaried employees, it may be important to take into account the employee's career orientation. Finally, both the employees' educational levels and job insecurity have to be taken into account.

### 3.3 WORKING TIME PREFERENCES AND HOUSEHOLD TIME

Weekly working hours reveal highly gendered patterns. In nearly all industrialized countries, women work on average fewer hours than men do, and this is mostly contributed to the domestic tasks performed by women. Based on the 1998 EU plus Norway Survey, Bielenski et al (2002, 40-42) show that men would like to reduce their working time by about twice as much as women, but men's preferred times are on average still around 6.5 hours longer than
those of women. By realizing these preferences, the working time differences between the genders would remain, but at a significant lower level. Men's preferences are clustered within the 30-40 hours range, while women's preferences are clustered around the 20-, 25-, 30-, 35and 40 -hours marks.

The presence of children has a significant influence on either or on both women's actual and preferred working time, except for Belgium. For the Netherlands, children of any age have a significant negative influence on the actual working hours, but not on the preferred hours. Presumably, this is caused by the availability of part-time jobs and the possibility to reduce hours in the job, as regulated in many Dutch collective agreements. In contrast, in seven of the sixteen countries children positively influence the actual working hours of men and in two countries children positively influence their preferred hours. Norway is an exception. Here, men with children up to age 5 prefer shorter hours. Bielenski et al (2002) conclude that for women household- related factors have the largest influence on working time preferences. According to analyses of the same dataset by Väisänen and Nätti (2002), children under age 10 positively influence the likelihood that a woman in a dual-earning household prefers fewer working hours for the household in total, whereas a man is more likely to prefer longer hours for the household. The effect of the life cycle may intervene with the effect of age. In their study of the Canadian Survey of Work Reduction, Kahn and Lang (1996) find that the desire for overtime hours declines with seniority.

The Netherlands is known for its high part-time rates. Studying desired and actual hours of work for unmarried individuals based on the Dutch Socio-Economic Panel, Euwals and Van Soest (1998) find larger wage elasticities of desired hours for women than for men. Both involuntary unemployment and lack of part-time jobs appear to be important sources of hours' restrictions. Individuals with (potential) wages below the minimum wage have a significantly larger probability of involuntary unemployment than others. This study reveals that women easily adapt their working time to their preferences. Compared to other EU member states, in the Netherlands the gender roles regime is the best predictor of the likelihood for a woman to hold a part-time job (Tijdens, 2002). Moreover, her wage rate is the best predictor that she considers outsourcing her domestic tasks to increase working hours while holding leisure time constant (Tijdens, Van der Lippe and De Ruijter, 2001). Therefore, this chapter takes into account the impact of the life cycle and the wage rate in determining working time preferences, but this effect is expected to be reverse for women and for men in the child-rearing phase.

### 3.4 WORKING TIME PREFERENCES AND JOB-RELATED FACTORS

Job-related factors may influence employees' preferences. According to Otten and Smulders (2002), job commitment increases significantly the preference for longer hours, while a high workload and an orientation towards leisure time increase the preference for fewer hours. Bielenski et al (2002) also included job-related characteristics in their analyses, but only in a limited number of countries these variables turned out to be significant. (Note that their study aimed at predicting the preferred hours and not the preference for fewer or longer hours). In eight of the sixteen countries, higher job satisfaction increases the number of preferred working hours. In three counties, good job prospects influence the preferred hours: employees perceiving good prospects prefer to work less hours than employees not perceiving these prospects. Finally, surprisingly, the attitude 'working to earn money' influences the preferred
hours only in two countries. In France the employees showing this attitude prefer longer hours, and in Denmark these employees prefer fewer hours compared to their counterparts.
In conclusion, job-related characteristics as perceived by the employee are assumed to have an impact on the preferences for working hours. These characteristics relate to factors such as job satisfaction, commitment to the job, job prospects, and workload.

## 4 Model and dataset

### 4.1 HyPOTHESES AND METHODOLOGY

This study aims to investigate the determinants of employees' working time preferences. Some employees will have unmet preferences for a longer period of time than others, and thus, the group that is unsatisfied will be biased. In the current study, however, the duration of the unmet preferences is not known, and the analyses thus cannot be controlled for this bias. A second bias may be due to recent changes in family life, leading to new preferences, or recent changes in employment status, leading to a better job match. Therefore, the first hypothesis will test for satisfaction with working hours:
(1) Employees with recent changes in family phase are more likely to be unsatisfied with working hours, whereas employees with recent changes in employment status are more likely to be satisfied.

In a next step, employees' preferences for more or for fewer working hours will be modelled. It follows from the overview in the previous section that current working time is assumed to be influential, leading to the second hypothesis:
(2) Preferences for fewer working hours are expected for employees with long working hours, long overtime hours, a long standard working week and for salaried employees, whereas preferences for more working hours are expected for employees with short working hours, no overtime hours, a short standard working week and for hourly paid employees. These analyses need to be controlled for education and job security.
According to the overview in the previous section, a second cluster of explanatory variables relates to household and family characteristics. This leads to the third hypothesis:
(3) Preferences for fewer working hours are expected for female employees with children at home, for employees with a partner with long working hours, and for employees with low wage rates. Preferences for more working hours are expected for male employees with children at home or for employees with no children at home, for employees with a partner with short working hours, and for employees with high wage rates.

A third cluster of explanatory variables relates to job characteristics:
(4) Preferences for fewer working hours are expected for employees that aim at minimizing working hours because they perceive their job as a burden, and preferences for more working hours are expected for employees that aim at maximizing working hours because they perceive their job as a challenge
In a first step, the hours satisfaction hypothesis 1 will be tested using a logit model. Two types of changes in family life and four types of changes in employment status as well as all other indicators mentioned in the hypotheses $2-4$ will be included. A logit analysis tests the likelihood that an employee with a certain characteristic is satisfied with the current working time in comparison to an employee lacking this characteristic, controlled for all other characteristics that are assumed to affect working time satisfaction. Based on this analysis, the
conclusion may be reached to exclude either certain observations or certain variables from the analyses in the second step.
In a second step, employees' preferences for more or for fewer working hours will be modelled, using multinomial logit analyses to test the hypotheses $2-4$. This analysis tests the likelihood of being in either category of working time preferences. Its odds ratios tell us - for a particular characteristic - how many times greater or smaller the chance is that the employee falls into the preference category 'longer hours', in contrast of falling into the preference category 'less hours', holding all other variables constant.

### 4.2 The data

The data used in the analyses stem from the Wage Indicator 2001/02 questionnaire, which is part of the Wage Indicator Website (see for a detailed methodological exploration, Tijdens, 2003) ${ }^{4}$ The Website is a joint effort of the main Dutch Trade Union Confederation FNV, a large publishing and Internet company, and the University of Amsterdam/AIAS. At the Website, visitors receive information on the hourly and monthly wages in their occupation, once they have specified their age, tenure and other relevant factors. For every visitor, these wages are instantly calculated using the coefficients of wage equations for over 100 occupations. The data for these wage equations are derived from a questionnaire on the website, that visitors are asked to complete in order to keep the Salary Check information up-to-date. They can win a price by doing so. Questions address profession, industry, job, employment record, working hours, earnings, and household characteristics. Recently, the website attained two million page views a month. Approximately 1,000 visitors a month complete the questionnaire. The dataset used in this study has been collected from May 2001 to October 2002, and counts 21,727 observations.

To ascertain how representative the Wage Indicator-2001/02 data is, the distributions by age and gender for individuals in waged employment for at least 12 hours per week have been compared with the comparable group in the Labor Force Survey (LFS) conducted by Statistics Netherlands (Tijdens, 2003). The comparison reveals that the age group 25-34 and females are over-represented. The latter is due to the fact that from May 2000 to April 2001 the Wage Indicator Website covered women only. The data set is weighted by age and gender to approach the LFS distributions.
The Wage Indicator survey has seven questions that address the employee's working time. These questions include the standard weekly working hours in the firm, the working weekly hours agreed in the labor contract, the usual working heurs per week, whether overtime hours are paid, a self-classification as full-timer or part-timer, a question whether one would prefer to work lenger hours (yes/no), and a question whether one would prefer to work fewer hours (yes/no). ${ }^{6}$ The last question had no explanation about prorated wage changes, as reduction of the standard working week with full wage compensation has not been discussed in recent years in the Netherlands, and because it is well known from the high part-time rates that

[^3]working fewer hours implies a prorated decrease in income. Overtime hours are defined as the difference between usual and contractual hours, under the condition that the usual hours exceed the contractual hours. The dependent variable in the initial analysis is satisfaction with working hours, defined as the absence of a preference for fewer and for longer hours. The dependent variable in the following analyses is the preference for fewer hours or for longer hours.

### 4.3 OPERATIONALIZATION AND MEASUREMENT

For hypothesis 1 the dataset provides information about the years when four types of changes in employment status took place, notably entering the labor market, employer mobility, changing jobs with the current employer, and re-entering the labor market after a career break. Two types of changes in family life are known, the year of birth of the oldest child and the year of birth of the youngest child, quite likely the second or third child. Recent changes have been defined as changes that took place in the year in which the employee completed the questionnaire, or in the year before he/she did so.
For hypothesis 2, four indicators measure the employee's working time characteristics, notably the usual working hours, a dichotomous variable indicating overtime defined as the usual hours being at least four hours more than the contractual hours, the standard working week in the firm, and a dichotomous variable identifying whether the employee is salaried or hourly paid. ${ }^{\square}$ A salaried employee is defined as an employee whose overtime hours are neither paid nor time-compensated. All other employees are classified as hourly paid. Because education and job insecurity are assumed to influence the employee's current working hours, the analysis of the hours preferences will be controlled for these two variables.

For hypothesis 3 , four indicators are used, notably gender, a variable indicating the four phases of family formation, a variable indicating the partner's working hours including no partner, and a variable indicating the employee's wage rate $<=$ or $>€ 10$. The partner's working hours are used as a proxy for household income and the employee's wage rate as a proxy for substitution of market and household time. The borderline of $<=$ or $>€ 10$ seemed to be appropriate, because after investigating several earnings categories, it captured the differences in working time preferences most optimally. The survey includes questions on gross and net wages and the payment period in order to calculate hourly wages. These wages have been converted into hourly wages, excluding allowances, variable income elements, holiday allowances, expense allowances or paid overtime hours. For this reason, the number of working hours on which the wage is based must be accurate. The data reveal gender-based differences: additional or overtime hours worked by part-timers are paid out more regularly than those worked by full-timers, but an overtime allowance hardly ever applies for the parttimers. Therefore, the calculation of the hourly wages is based on the contractual hours, although for small part-timers it is based on their usual hours. In this way, the hourly wages can be as accurately as possible.

[^4]For hypothesis 4, the current study initially aimed to include job satisfaction as a predictor of working time satisfaction. However, the dataset lacks such a variable. Therefore, it is assumed that a job that is perceived as a burden or a challenge will influence the preference for working hours. Two indicators are used to measure the job being a challenge. Both are dichotomous variables indicating whether the employee's job became more interesting last year, and whether he/she is eager to have a career. A few other indicators have also been tried, such as good career perspectives at the workplace, or a supervisory position, but these do not appear to have any impact. There is also not a single variable to indicate the job being a burden. Three dichotomous indicators have been used, notably 'I can do work largely routinely', 'conflicts occur regularly at work', and 'staffing at the workplace is insufficient'. Here too, a few other indicators - such as future job redundancy - have been tried but these did not reveal any significant findings.

### 4.4 DESCRIPTIVE FINDINGS

Table 4 in the Appendix shows the distribution of the explanatory variables over the preference categories as well as their frequencies. This table shows that $56 \%$ of the respondents is satisfied with their current working hours. The highest satisfaction with working hours is found among employees working 20-29 hours, followed by recent labor market entrants, and females with children out home. Lowest satisfaction is found for employees with conflicts at their department, followed by males with children out home, employees with overtime, and employees whose job will become redundant in the next years.
Before turning to the analysis, a few features of average working hours will be described, as they are not included in the table. On average male employees work 3.9 hours a week more than contractual agreed, and female employees do so for 2.8 hours. For male employees actual working hours rise with contractual hours, but this is not the case for female employees. A male employee reporting 6 or more extra hours report on average 37 contractual hours, whereas male employees with 0 extra hours on average have a labor contract for 36.2 hours a week. It matters whether the extra hours are paid, be it directly paid or by timecompensated overtime. Employees having overtime pay work on average less extra hours (3.1 hours extra hours and 33.9 contractual hours) compared to employees who receive no overtime pay ( 4.9 hours extra hours and 36.1 contractual hours). Obviously, overtime payment reduces working time.

Table 4 shows that 56 percent of the Wage Indicator employees are satisfied with their working hours, 37 percent prefer to work fewer hours and only 7 percent prefer to work longer hours. The average working week according to their labor contract is 34.6 hours, and 38.1 according to actual hours. Employees who prefer fewer hours work on average 36.5 contractual hours ( 40.3 according to usual hours), those who prefer longer hours work 28.0 contractual hours ( 32.7 usual hours) and those who are satisfied work 34.1 contractual hours (37.2 usual hours).

## 5 PREDICTING WORKING HOURS SATISFACTION

In hypothesis 1 it is assumed that satisfaction with working hours will be higher for employees whose employment status has recently changed and lower for employees who have recently experienced changes in their family life. Four types of changes in employment status - labor market entry, start of first job with current employer, start of last job with current employer, and labor market re-entry after a career break - and two types of changes in family life - year of birth of the oldest child and the year of birth of the youngest child - are investigated. T-tests reveal that the two changes in family life and three out of the four changes in employment status do not differ significantly between the satisfied and the unsatisfied employees (Table 1). Only recent labor market entry differs for the two groups, satisfaction being higher among recent entrants.

Table 1 Means and standard deviations for working hours satisfaction for six types of recent changes in year surveyed or year before surveyed ( $T$-tests)

|  | not satisfied |  |  | satisfied |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Recent Changes | Mean | Std. Dev. | Mean | Std. Dev. | Sign |
| first child born | 0.027 | 0.163 | 0.028 | 0.164 |  |
| second or later child born | 0.029 | 0.169 | 0.034 | 0.180 |  |
| labor market entry | 0.035 | 0.184 | 0.050 | 0.219 | $* * *$ |
| first job with current employer | 0.281 | 0.449 | 0.296 | 0.457 |  |
| last job with current employer | 0.405 | 0.491 | 0.417 | 0.493 |  |
| labor market re-entry | 0.026 | 0.158 | 0.028 | 0.166 |  |
| $\%$ | 8,64 | $44.0 \%$ | 10,952 | $56.0 \%$ |  |

Source Data Wage Indicator 2001/2002, weighted data, * $p=10 \%$, $* * p=5 \%$, $* * * p=1 \%$
In order to analyze satisfaction with working hours in greater detail, a logit analysis has been performed. The dependent variable is the dichotomous variable 'satisfaction with working hours' (yes/no). The independent variables are the six types of recent changes and all variables proposed in the hypotheses $2-4$. The analysis is controlled for the employee's education level and job insecurity. According to hypothesis 3, different preferences are expected for male and female employees during the life cycle. Therefore, the analyses are performed for men and women separately too. The results are shown in Table 2.

Table 2 Marginal effects and $t$-values of a logit analysis for predicting satisfaction with current working hours (yes, no).

|  | All | $\mathrm{N}=17,965$ | Females | $\mathrm{N}=10,813$ | Males | $\mathrm{N}=7,167$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exp(B) | T-value | $\operatorname{Exp}(\mathrm{B})$ | T-value | $\operatorname{Exp}(\mathrm{B})$ | T-value |
| Recent Changes |  |  |  |  |  |  |
| first child born | 0.905 | -1.012 | 0.938 | -0.512 | 0.912 | -0.730 |
| second or later child born | 1.016 | 0.167 | 1.171 | 1.195 | 0.911 | -0.762 |
| labor market entry | 1.447 | 4.323 | 1.577 | 4.920 | 1.337 | 2.310 |
| first job with current employer | 1.014 | 0.254 | 0.953 | -0.743 | 0.992 | -0.105 |
| last job with current employer | 0.931 | -1.471 | 1.008 | 0.132 | 0.958 | -0.596 |
| labor market re-entry | 0.978 | -0.216 | 1.010 | 0.091 | 0.717 | -1.769 |
| Working Time Characteristics |  |  |  |  |  |  |
| standard work week in firm (>=40 hrs is ref.) |  |  |  |  |  |  |
| $<=35$ | 1.094 | 0.932 | 0.865 | -1.328 | 1.454 | 2.061 |
| 36-37 | 1.306 | 6.586 | 1.281 | 4.917 | 1.279 | 3.653 |
| 38-39 | 1.131 | 3.024 | 1.178 | 3.033 | 1.091 | 1.419 |
| usual working hours (>=40 hrs pw is ref.) |  |  |  |  |  |  |
| $<=20$ | 1.402 | 4.374 | 1.605 | 5.285 | 1.004 | 0.025 |
| 20-29 | 1.917 | 9.746 | 1.979 | 9.352 | 1.141 | 0.695 |
| 30-39 | 1.226 | 4.908 | 1.339 | 5.713 | 1.210 | 2.755 |
| overtime > 4 hours | 0.850 | -4.331 | 0.917 | -1.721 | 0.818 | -3.574 |
| salaried employee (hourly paid is ref.) | 0.899 | -2.981 | 0.876 | -2.889 | 0.970 | -0.552 |
| Family Phase and Household Characteristics |  |  |  |  |  |  |
| male (female is ref.) | 1.215 | 5.295 | - | - |  | - |
| family phase (children out home is ref.) |  |  |  |  |  |  |
| Aren yet | 1.022 | 0.390 | 0.661 | -4.336 | 1.490 | 3.601 |
| st child < $=12 \mathrm{yr}$ | 1.108 | 1.776 | 0.769 | -2.539 | 1.371 | 2.739 |
| st child at home > 12 yr | 1.135 | 2.096 | 0.848 | -1.495 | 1.368 | 2.390 |
| working hours partner (>25 hrs is ref.) |  |  |  |  |  |  |
| artner | 0.917 | -2.131 | 1.030 | 0.640 | 0.876 | -1.997 |
| : < $=25 \mathrm{hrs}$ | 0.918 | -1.908 | 0.933 | -0.860 | 1.007 | 0.096 |
| hourly gross wage > € 10 (<=€ 10 is ref.) | 1.168 | 3.480 | 1.179 | 3.261 | 1.186 | 2.348 |
| Job Challenge or Burden |  |  |  |  |  |  |
| job became more interesting last year | 1.396 | 9.802 | 1.474 | 8.830 | 1.334 | 5.422 |
| eager to have a career | 1.159 | 4.253 | 1.176 | 3.693 | 1.199 | 3.102 |
| can do work largely routinely | 0.956 | -1.313 | 0.923 | -1.824 | 0.994 | -0.105 |
| conflicts occur regularly at work | 0.693 | -10.337 | 0.734 | -6.852 | 0.684 | -6.709 |
| staffing insufficient | 0.790 | -7.163 | 0.857 | -3.698 | 0.746 | -5.718 |
| Control for Education |  |  |  |  |  |  |
| education level (high is ref.) |  |  |  |  |  |  |
| low | 1.035 | 0.615 | 1.057 | 0.661 | 1.097 | 1.098 |
| e low | 1.135 | 2.359 | 1.009 | 0.133 | 1.105 | 1.122 |
| : high | 0.989 | -0.287 | 0.910 | -1.893 | 1.104 | 1.666 |
| job will become redundant in next years | 0.826 | -3.047 | 0.862 | -1.889 | 0.823 | -1.828 |
| Constant | 0.906 | -1.292 | 1.098 | 0.794 | 0.836 | -1.331 |
| Chi2 (df) sign | 731.63 | (30). 000 | 540.56 | (29). 000 | 270.65 | (29). 000 |

Source Data Wage Indicator 2001/2002

As regards the impact of the six types of recent changes in employment status and family life, the findings of the T-tests hold for recent labor market entrants. They are 1.4 times more likely to be satisfied than non-recent entrants. Obviously, recent entrants have a better match for working hours. As expected, there are hardly any differences by gender in this cluster.
As regards the impact of current working time characteristics, the results show that - as expected - particularly this cluster of indicators has a large impact on working time satisfaction. The shorter the standard working week in the firm, the more likely the employee is satisfied with his/her working time. In comparison with an employee in a 40 -hour firm, an employee in a $36-37$-hour firm is 1.3 times more likely to be satisfied with his/her current working hours. In addition, the shorter the employee's usual working week, the more likely is working hours satisfaction. In 20-29 hour jobs, female employees are 2.0 times more likely to show satisfaction than their counterparts who work 40 hour and over. For male employees the findings are not significant for the 20-29 hour jobs, but in the $30-39$ hours jobs, males are 1.2 times more likely to show hours satisfaction than their counterparts working 40 hour and over. Similar numbers apply to females in the 30-39 hour category. As expected, overtime influences satisfaction with current working hours. Employees with overtime are 0.8 times less likely to be satisfied with current working hours. For male employees, these findings are significant, for female employees they are not. This may be attributed to the group of women in small part-time jobs, who regularly work longer hours than contractually agreed. These jobs hardly exist for male employees. Finally, salaried employees are 0.9 times less likely to be satisfied with current working hours. Remarkably, this finding is significant for the female employees, but not for the males. Several explanations may be hypothesized, but testing is beyond the scope of this article.

As regards the impact of gender, family phase, household characteristics and hourly wages, the results reveal large gender differences, as expected. In comparison to female employees, male employees are 1.2 times more likely to be satisfied with their current working hours. Family phase has a reverse impact for males and females, as expected. In families with no children yet, women are 0.6 times less likely to show satisfaction than their counterparts with children out home, whereas men in the corresponding categories are 1.4 times more likely. In families with young children, women are 0.7 less likely to be satisfied than their counterparts with children out home, whereas again the reverse applies to men, being 1.3 more likely. Thus, in the final life cycle stage, female employees are far more satisfied with their current working hours than their counterparts in earlier stages, whereas the opposite holds for males. Obviously, male employees in this stage prefer to reduce working hours, but quite likely they face obstacles that hinder them in doing so. The partner's working hours hardly influence the employee's working hour preferences. Finally, a high hourly wage ( $€ 10$ and over) increases working hours satisfaction by 1.1. This finding is similar and significant for both female and male employees.
As regards the impact of the job being a challenge or a burden, as expected, employees who indicate that their job became more interesting and employees who are eager to have a career are more often satisfied with their working time (respectively 1.3 and 1.1 times). As expected, conflicts at the workplace and insufficient staffing contribute to higher working time dissatisfaction (respectively 0.6 and 0.7 times). A routine character of the job does not influence the hour's satisfaction. Hardly any gender differences exist in this cluster of explanatory variables.

Finally, the analysis is controlled for education and for job insecurity. The findings, however, indicate that no significant differences exist for educational levels, when it comes to predicting hour's satisfaction. For job insecurity, the finding is significant for the whole sample, but not for the male and female sub-sample. In a separate analysis, it turned out that job insecurity did not contribute to the preference for fewer or longer working hours.
In the next section, the focus of the analysis will be on the preference for fewer or more working hours. From this section, it can be concluded that changes in family life or in labor market status do not contribute to the explanation either, except for a recent entry into the labor market. Therefore, recent labor market entrants will be excluded from further analyses. A second conclusion is that there is no need to control the analyses for education or for job insecurity. Therefore, these two variables will be excluded from further analyses. Third, having a routine job does not influence the working hours satisfaction, and will therefore also be excluded. Finally, as regards family phase, the analysis has shown large gender differences. This leads to the conclusion that one analysis will do, provided that the variable family phase is split into male and female dummies. There is no need to continue with three separate analyses, thus for all, females, and males.

## 6 PREDICTING A PREFERENCE FOR MORE OR FEWER WORKING HOURS

### 6.1 The analysis

To analyze the preference for more or fewer working hours in greater detail, a multinomial logit analysis has been performed to predict the likelihood that an employee has either a preference for longer or for fewer hours, when taking satisfaction with working hours as the reference category. Three clusters of explanatory variables are used, as proposed in the hypotheses $2-4$. The variable 'family phase' has been split into male and female dummies. The results are shown in Table 3.

### 6.2 THE IMPACT OF WORKING TIME CHARACTERISTICS

Working time characteristics affect working time satisfaction, as has been shown in the previous section. In hypothesis 2 it is assumed that the working time characteristics also will influence the likelihood of an employee's preference for fewer or more working hours. The bivariate results in Table 4 in the Appendix reveal that employees with short usual working hours are more frequently found in the category that prefers longer hours, while the reverse holds for employees with long usual hours. A similar pattern occurs for employees in workplaces with a short respectively a long standard working week. Table 4 also shows that employees with long overtime hours more frequently prefer fewer working hours, and so do salaried employees.
Table 3 reveals that the bivariate findings from Table 4 are confirmed in the multinomial logit analysis. The longer the standard working week in the firm, the more likely the employee will prefer fewer hours, and the less likely the employee will prefer longer hours. For example, an employee in a firm with a $36-37$ hour standard week is 0.7 less likely to prefer fewer hours in comparison to an employee in a firm with a 40 hours standard week. A similar pattern can be seen for the usual working hours per week. The longer the usual working week, the more likely the employee will prefer fewer hours, and the less likely the employee will prefer longer hours. For example, an employee with a 20-29 hour usual working week is 4.2 times more likely to prefer longer hours in comparison to an employee who usually works 40 hours per week or more.
On behalf of the analysis overtime and overtime payment have been put together, as the two jointly may affect the preference for fewer or longer hours. Table 3 shows that, in comparison to the salaried employee, the hourly paid employee, whether currently having overtime or not, is 0.8 times less likely to prefer fewer hours. When it comes to the preference for longer hours, the findings are not so clear. In comparison to employees without overtime, employees with overtime are more likely to prefer longer hours. Particularly the hourly paid employee with overtime is more likely to prefer longer hours, but also the salaried employee with overtime is likely to prefer so. At first sight this is a puzzling finding. An explanation may be

Table 3 Marginal effects and $t$-values of a multinomial logit analysis predicting preferences for fewer or longer working hours (satisfied with hours is the reference category) from four clusters of indicators. Recent labor market entrants are excluded ( $N=17,116$ ).

|  | prefers fewer hours |  | prefers longer hours |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\operatorname{Exp}(\mathrm{B})$ | T-values | $\operatorname{Exp}(\mathrm{B})$ | T-values |
| Intercept |  | 0.973 |  | -9.524 |
| Working Time Characteristics |  |  |  |  |
| standard work week in firm (>=40 hrs is ref.) |  |  |  |  |
| < $=35$ | 0.549 | -4.910 | 2.585 | 7.284 |
| 36-37 | 0.667 | -9.211 | 1.460 | 4.749 |
| 38-39 | 0.813 | -4.737 | 1.146 | 1.604 |
| usual working hours (>=40 hrs pw is ref.) |  |  |  |  |
| $<=20$ | 0.286 | -12.501 | 5.358 | 14.946 |
| 20-29 | 0.246 | -17.021 | 4.201 | 13.424 |
| 30-39 | 0.679 | -8.758 | 1.658 | 5.560 |
| overtime and pay (no overtime and salaried empl is ref.) |  |  |  |  |
| rtime and hourly paid employee | 0.858 | -3.328 | 1.027 | 0.278 |
| ne and hourly paid employee | 0.773 | -4.281 | 2.844 | 9.557 |
| ne and salaried employee | 0.961 | -0.652 | 1.844 | 4.651 |
| Family Phase and Household Characteristics |  |  |  |  |
| female (male is ref) | 0.762 | -1.972 | 0.427 | -2.602 |
| family phase (children out home is ref.) |  |  |  |  |
| + no children yet | 1.463 | 3.886 | 1.990 | 2.933 |
| no children yet | 0.670 | -3.625 | 1.065 | 0.254 |
| + youngest child <=12 yr | 1.200 | 1.713 | 2.479 | 3.847 |
| youngest child <=12 yr | 0.721 | -2.896 | 0.898 | -0.415 |
| + youngest child at home $>12 \mathrm{yr}$ | 1.090 | 0.735 | 2.093 | 2.943 |
| youngest child at home $>12 \mathrm{yr}$ | 0.692 | -2.742 | 0.962 | -0.126 |
| working hours partner ( $>25 \mathrm{hrs}$ is ref.) |  |  |  |  |
| artner | 0.942 | -1.448 | 1.712 | 7.072 |
| < $=25 \mathrm{hrs}$ | 0.986 | -0.252 | 1.253 | 1.994 |
| hourly gross wage > € 10 (<=€ 10 is ref.) | 1.503 | 9.152 | 0.563 | -8.265 |
| Job Challenge or Burden |  |  |  |  |
| job became more interesting last year | 0.656 | -11.853 | 0.882 | -1.924 |
| eager to have a career | 0.728 | -8.432 | 1.708 | 7.270 |
| conflicts occur regularly at work | 1.455 | 9.873 | 1.134 | 1.782 |
| staffing insufficient | 1.310 | 7.619 | 0.949 | -0.814 |

Source Data Wage Indicator 2001/2002, Chi2 (df) sign. 2574.49 (46) . 000
that these employees already work overtime as an expression of their preference to work longer hours, for example because they work short hours according to their contract. Indeed, compared to other employees the average contractual working week in this particular group is lowest, notably 27.5 hours compared to 36.0 hours in the group that also has overtime but expressed a preference for fewer working hours.

### 6.3 THE IMPACT OF GENDER, LIFE CYCLE, HOUSEHOLD AND WAGES

As regards household and family characteristics, hypothesis 3 assumes that working hours' preferences will depend on gender, family phase, the partner's working hours, and a wage rate <= or > € 10. Table 4 in the Appendix reveals that female employees with children out house are the most satisfied (67\%), whereas their male counterparts are the least satisfied (only $46 \%$ ). These men overwhelmingly prefer fewer hours. In contrast to the hypothesis, the female employees with children under the age of 12 prefer fewer working hours the least, whereas their male counterparts prefer fewer hours nearly as much as the male employees with children out house. The female employees with children at home quite likely have made their labor market supply decision dependent upon the fulfilment of their working time preferences. In all family phases, the male employees are less satisfied with their working hours than the females, except for the first phase of family formation, when there are no children yet. When it comes to the working hours of the partner, the Table reveals that satisfaction with working hours hardly varies across the three categories. A breakdown by gender (not in the Table) reveals that male employees without a partner often prefer to work longer hours, whereas male employees with a partner who works less than 25 hours often prefer fewer working hours. The female employees reveal the same pattern, though less outspoken. When it comes to hourly wages, the Table reveals that quite likely the hypotheses will be supported. Employees in the low earnings category prefer less often fewer hours and more often longer hours.
Table 3, including results of the multinomial logit analysis, seems to confirm the interpretation of Table 4. Family phase appears to have a significant influence on the likelihood of both fewer hours and longer hours, but the effects are contrary to the expected. In comparison to the category employees with children out home, women having not yet children are far more likely to prefer fewer hours while men who have not yet children are far less likely to prefer fewer hours. Women with children at home are not significantly more likely to prefer fewer hours. This is in contrast to the hypothesis, where it was expected that employees with children at home were those eager to work fewer hours, and that this would be more often the case for women than for men. For female employees, adaptation to their working time preferences probably is a major constraint for their labor supply. Men with children at home are less likely to prefer fewer working hours. In comparison to the employees with children out home, women with no children yet or with children at home are more likely to prefer longer hours. The latter group probably has a part-time job and expresses a desire for longer hours. The reference group 'employees with children out house' is most likely to prefer fewer working hours. In conclusion, the hypothesis is only confirmed for male employees who have not yet children.

As regards the partner's working hours, this condition has no significant influence on the working time preferences, except for employees without partner. They are 1.7 times more likely to prefer longer hours compared to the reference group, which are the employees with a partner working 25 hours or more. Thus, this part of the hypothesis is partly confirmed.

When it comes to the impact of hourly wages on working time preferences, Table 3 reveals that employees with a gross hourly wage of more than $€ 10$ are 1.5 times more likely to prefer fewer working hours than employees earning less than $€ 10$. Employees with a gross hourly wage over $€ 10$ are 0.5 times less likely to prefer longer working hours than employees earning less than $€ 10$. Thus, this part of the hypothesis is fully confirmed.

### 6.4 THE IMPACT OF JOB CHARACTERISTICS

In hypothesis 4 , perceiving the job as a challenge or as a burden was assumed to affect the working time preferences. Table 4 in the Appendix reveals that employees who have an interesting job and who are eager to have a career are more often satisfied with their working hours and less often prefer fewer working hours, as expected for the employees perceiving their job as a challenge. The employees who report regular conflicts at the workplace are far less often satisfied with their working hours, and they prefer both more often fewer hours and more often longer hours compared to the employees who do not report conflicts. Finally, the employees reporting insufficient staffing are far less often satisfied with their working hours, and they overwhelmingly prefer fewer hours.
The results of the multinomial logit analysis in Table 3 fully confirm the descriptive findings. The two indicators for a challenging job indeed show that these employees are less likely to prefer fewer working hours. The employees who indicated that their job became more interesting last year are 0.6 less likely to prefer so and the employees who are eager to have a career are 0.6 less likely. The latter group is also 1.7 times more likely to prefer longer hours. Thus, as regards the job being a challenge, the hypothesis is confirmed. The results are not so decisive regarding the preferences of the employees perceiving their job as a burden. The employees reporting conflicts at the workplace and insufficient staffing are more likely to prefer fewer hours, respectively 1.4 and 1.3 times. The findings for a preference for more working hours are insignificant. Thus, as regards the job being a burden, the hypothesis is mostly confirmed.

## 7 Conclusion

This study seeks explanations for working time preferences, using cross-sectional multinomial logits for the 2001/2002 Wage Indicator dataset ( $\mathrm{N}=21,727$ ). Four hypotheses have been investigated. It is firstly assumed that the match between employers' and employees' preferences is better for employees who have recently experienced changes in employment status and worse for employees with recent changes in family status. The former category is expected to be more satisfied with their working hours in contrast to the latter. This hypothesis is only supported as regards to recent entry in the labor market. Employees with less than a year experience in the labor market are indeed more often satisfied. Other changes do not influence working hours' satisfaction. The analyses of the next three hypotheses therefore have been limited to employees with at least one year in the labor market.

The second hypothesis assumes that working hours characteristics determine the working time preferences. It turns out that the longer the working hours, both the standard working week at the workplace and the employee's usual working hours, the more likely the employee expresses a preference for fewer hours and the less likely a preference for longer hours. The analyses also show that hourly paid employees are less likely to express a preference for fewer hours, when compared to salaried employees. This applies equally to hourly paid employees who currently have overtime and who have not. As regards the preference for longer hours, particularly the hourly paid employee with overtime is likely to express a preference for longer hours. Thus, current overtime hours may very well be regarded as an expression of interest to work even longer hours. This category of employees has indeed a relatively low average working week. Almost all findings are as expected.

The third hypothesis assumes that family and household characteristics influence the working hours' preferences, notably household income, wage rate and family phase, whereby the effects for the latter were assumed to differ by gender. This hypothesis however is not supported, in contrast. As expected, male employees who have no children yet or who have children at home are less likely to prefer fewer hours than employees with children out home. Female employees however, do not show a significant effect as regards a preference for fewer hours. It therefore may be assumed that they easily have adapted their working time to their preferences, or otherwise have withdrawn from the labor market. As regards the preference for longer hours, here the male employees have significant findings for the subsequent life cycles, but women do have. When they not have children yet or when they have children at home, they are more likely to express a preference for longer hours in comparison to the employees with children out home. In contrast to the expectations, no significant impact of the partner's working hours on the employee's preferences was found. Finally, wage rate has a large impact on the working time preferences. Employees with an hourly gross wage of at least $€ 10$ have prefer far more often fewer hours and far less often longer hours than employees whose earnings fall below $€ 10$. In conclusion, the effects of the life cycle are reverse to expected, probably due to the fact that women adapt working hours more easily to their preferences than males do. This confirms previous findings by Euwals and Van Soest (1999). Second, preferences for working hours seem to be an individual and not a joint household preference.

By the fourth hypothesis the impact of job characteristics is studied, assuming that employees who perceive their job as a burden will prefer less hours and employees perceiving their job as a challenge will prefer longer hours. As regards the preference for fewer hours, this is fully confirmed. As regards the preferences for longer hours, this is partly confirmed, because some findings are insignificant. Employees perceiving their job a challenge, here defined as employees who are eager to have a career or who perceive their job has become more interesting in the year before surveyed, indeed prefer less often fewer hours. Employees who perceive their job as a burden, here defined as employees with regular conflicts at work and insufficient staffing, indeed prefer more often fewer hours.

In conclusion, working hours' preferences are predominately influenced by working hours' characteristics. This tendency was also found in previous studies. New is the finding that salaried employees want to reduce hours whereas hourly paid employees prefer to work longer hours, even when controlled for actual overtime. In contrast to public opinion, female employees apparently show a better fit between preferred and usual hours compared to male employees. The study further shows that wage rates have a large impact on working hours' preferences, as the low earnings category prefers far more often longer hours. New is that employees in a challenging job less often prefer fewer hours, and vice versa employees who perceive their job as a burden want to reduce hours.

## REFERENCES

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

Bluestone, B. \& S. Rose. 1998. The Macroeconomics of Work Time. Review of Social Economy, LVI, 4, 425-441
Bosch, G. \& Lehndorff, S. 2001. Working time reduction and employment: experiences in Europe and economic policy recommendations. Cambridge Journal of Economics, 25, 209-243

Cette, G. 2000. Réduction du temps de travail et emploi. Economie-Internationale, 83, 3-13
Contensou, F. \& R. Vranceanu. 2000. Working time: Theory and policy implications. Cheltenham, UK / Northampton (Mass.), USA: Edward Elgar
Dreger, C., O. Fuchs \& J. Kolb. 2001. The Effect of a Reduction in Working Hours on Employment: Empirical Evidence for West-Germany. The Journal of Economics (MVEA), XXVII, (2), 69-81

Ehrenberg, R. \& R. Smith. 1997. Modern Labor Economics (6th edition). Reading (Mass.): Addison-Wesley

Euwals, R. \& A. van Soest. 1999. Desired and actual labour supply of unmarried men and women in the Netherlands. Labour Economics, 6, 95-118

Evans, J. M., D. C. Lippoldt \& P. Marianna. 2001. Trends in working hours in OECD countries. Paris, Organisation for economic co-operation and development (OECD), Labour Market and Social Policy Occasional Papers No 45

Heyer, E. \& X. Timbeau . 2000. 35 heurs: réduction réduite. Revue de l'OFCE, 74, 53-95
Jacobs, Jerry A. 1998. Measuring Time at Work: Are Self-Reports Accurate? Monthly Labor Review, 121, 12, 42-53.

Jacobs, Jerry A. and Kathleen Gerson. 1998. Who are the Overworked Americans? Review of Social Economy, LVI, 4, 442-459
Kahn, S. \& K. Lang. 1996. Hours Constraints and the Wage/Hours Locus. The Canadian Journal of Economics, 29 (S1), S71-S75
Kahn, S. \& K. Lang. 1995. The Hours Constraints: Evidence from Canada. The Canadian Journal of Economics, 28 (4a), 914-928
Kapteijn, A., A. Kalwij \& A. Zaidi. 2002. The Myth of Worksharing. Unpublished paper
Nätti, J. 1995. Working time policy in Finland: flexibilization and work sharing. Paper presented at the 1995 ISWT conference, Blankenberge, Belgium

OECD. 1998. Employment Outlook (Ch. 5). Paris: Organisation for Economic Co-operation and Development

Otten, F.W.J. \& P.G.W. Smulders. 2002. Wie wil langer werken, wie korter? Openbare uitgaven, 34(1), 25-32

Stevenson, M. 2002. Hours of Work as a Measure of Performance: Prospects and Pitfalls. Draft paper for Salamanca Meeting of Performance Team, March 8-9
Taddei, D. 1998. Reduction in Working Time. A literature overview. Luxembourg: Office for Official Publications of the European Communities.
Tijdens, K.G. 2002. Gender Roles and Labor Use Strategies: Women's Part-time Work in the European Union. Feminist Economics, 8(1), 71-99
Tijdens, K.G. 2003. Employers' and employees' preferences for working time reduction and working time differentiation. A study of the 36 hours working week in the Dutch banking industry. Acta Sociologica, 46(1), xx in print
Tijdens, K.G. 2003. The dataset, measurement issues and the methodology of the Dutch Wage Indicator Internet Survey. Amsterdam: AIAS Research Report 03/**, in print
Tijdens, K.G., T. Van der Lippe and E. De Ruijter. 2001. Women's Choices for a Domestic Help. The Effects of Working Time, Household Time, Household Characteristics, Women's Wages and Time Allocation Attitudes. Paper presented at the LoWERconference Combining Work, Home and Education, University of Minho, Braga, Portugal, October 26-27, 2001

Väisänen, M. \& J. Nätti. 2002. Working time preferences in dual-earning households. European Societies, 4(3), 307-329

## ApPENDIX

Table 4 Distribution of the explanatory clusters over the three working time preference categories.


| hourly gross wage <br> $<=€ 10$ | no | 39.1 | 5.7 | 55.3 | 100 | 78.2 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Job Challenge or Burden |  |  | 14.1 | 58.4 | 100 | 20.9 |
| job became interesting | no | 41.7 | 7.6 | 50.7 | 100 | 40.0 |
| last year | yes | 33.2 | 7.4 | 59.4 | 100 | 56.5 |
| eager to have a career | no | 39.7 | 5.4 | 54.9 | 100 | 35.7 |
|  | yes | 34.9 | 8.8 | 56.3 | 100 | 59.5 |
| work can be done largely | no | 37.1 | 6.2 | 56.7 | 100 | 51.0 |
| $\quad$ routinely | yes | 36.3 | 8.9 | 54.8 | 100 | 44.8 |
| conflicts do not occur | no | 33.5 | 7.3 | 59.2 | 100 | 67.1 |
| $\quad$ at the workplace | yes | 45.0 | 7.7 | 47.2 | 100 | 26.3 |
| staffing sufficient | no | 32.5 | 7.7 | 59.8 | 100 | 38.0 |
|  | yes | 39.7 | 7.2 | 53.1 | 100 | 55.6 |
| Control Variables |  |  |  |  |  |  |
| education low |  | 33.6 | 10.8 | 55.6 | 100 | 15.2 |
| e low |  | 32.9 | 8.6 | 58.5 | 100 | 14.3 |
| high | 37.5 | 7.1 | 55.4 | 100 | 41.1 |  |
| high |  | 38.7 | 5.8 | 55.4 | 100 | 29.2 |
| job will become redundant in | no | 36.5 | 7.3 | 56.2 | 100 | 88.6 |
| $\quad$ next years | yes | 40.7 | 9.2 | 50.1 | 100 | 6.6 |
| total |  | 36.6 | 7.5 | 55.9 | 100 |  |

Source $\quad \begin{aligned} & \text { Data Wage Indicator 2001/2002, weighted data, } N=21,265 \\ & \\ & \\ & \end{aligned}$ Percentages may not count to 100 because of missing values.


[^0]:    1 An earlier version of this paper was presented at the New Labor Market Architecture Conference in Bellagio, Italy, September 23-27, 2002, and at the AIAS lunch seminar in Amsterdam, November 7, 2002.

[^1]:    2 This is a representative survey carried out in the 15 European Union member states and Norway on behalf of the European Foundation for the Improvement of Living and Working Conditions in Dublin, Ireland

[^2]:    3 These standard hours are also referred to as the normal hours or the agreed hours.

[^3]:    4 The wage indicator website can be found on www.loonwijzer.nl. Details about the project, the methodology and the data set can be found on www1.fee.uva.nl/aias/wage-indicator/.
    5 The answers to this question are primarily used in the data-cleaning process.
    $6 \quad$ A very low percentage of $0.2 \%$ of the respondents wanted both to work more and to work less. They were dropped from the sample.

[^4]:    7 Note that in countries with a high percentage of employees in full-time employment the standard working week and the own working week probably would show high correlation, particularly with regard to contractual working hours. Yet, in the Netherlands with its high part-time rates this is not particularly the case. In addition, the usual working hours and not the contractual hours have been included in the analysis. The correlation between the usual working hours and the standard working week in the firm is low ( $.24 * * *$ ).

