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Reasons for using part-time work in the Nordic establishments. Does it make difference for workers and companies?*

Anita Haataja** Merja Kauhanen***

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TIIVISTELMÄ

Tutkimuksessa tarkastellaan osa-aikatyötä ja sen teettämisen syitä työnantajanäkökulmasta Ruotsissa, Suomessa ja Tanskassa. Tutkimuksessa selvitetään, kuinka nämä syyt eroavat yritysten ominaisuuksien (kuten esim. koko, toimiala, sektori, työntekijöiden sukupuolijakauma) mukaan. Kiinnostuksen kohteena on myös selvittää, onko työntekijä- ja työnantajalähtöisellä osa-aikatyöllä erilaisia seurauksia työnantajien ja työntekijöiden kannalta. Maavertailussa hyödynnetään laajaa, 21 EU-maata kattavaa eurooppalaista yritystutkimusta vuosilta 2004-2005.

ABSTRACT

This paper investigates the extent and determinants of employer demand for part-time work in the three Nordic countries (Denmark, Finland and Sweden) by making a distinction between establishments' two main reasons for introducing part-time work, i.e. establishment needs and wishes of employees. We study the importance of different characteristics (such as e.g. size, industry, sector, share of female workers) of establishment to the probability of employer-based and of employee-based part-time work. We also put under scrutiny whether different motivations for part-time work also have different outcomes for companies and workers, and how these reasons shape the nature of part-time work. In the analyses we use the Establishment Survey on Working Time and Work-Life Balance (ESWT) in 21 EU Member States including Finland, Sweden and Denmark.

Keywords: labour demand, part-time work, employers' needs, employees' wishes, Denmark, Finland, Sweden

1. INTRODUCTION

The share of part-time employment of the total employment has increased noticeably over the last 15 years in most EU countries, on average from around 16 % in 1995 to around 21 % in 2008 in the EU15 (see Figure 1). Between 2000-2006 the growth of part-time work accounted for a clearly larger contribution (around 60 %) to employment creation than full-time employment (European Commission, 2006), especially in the female employment as part-time

work is a strongly female-dominated phenomenon¹. It is noteworthy that variation across EU Member States as regards both the extent and growth rate of part-time work is considerable even within the welfare state regimes.

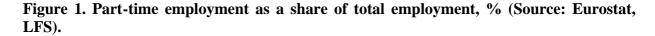
While majority of the part-time work is on voluntary basis and in many countries part-time work contracts are even supported by special schemes in legislation, collective agreements or employment contracts, the share of involuntary part-time workers has also increased (Anxo et al., 2007; Haataja, 2007).

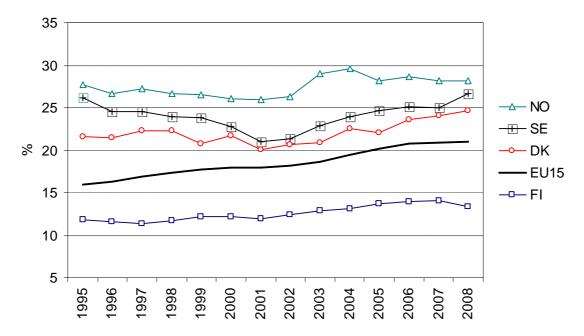
Of the Nordic countries Sweden, Denmark and Norway belong to the countries with the highest incidence of part-time work in Europe, whereas in Finland the share of part-time work is still relatively low and below the EU average (European Commission, 2008). The extent of part-time work differs between the Nordic countries, but we do not know about the possible differences in establishment policies and to which extent these policies reflect employees' wishes versus firms' needs in these countries. An interesting question is to what extent possible differences in establishments' motivations for using part-time work shape the nature of part-time work across the Nordic countries and how these differences might also explain the incidence of part-time work in these countries.

In the empirical literature part-time work has predominantly been studied from the perspective of employees (see e.g. Hakim, 1997). However, we still know rather little about the demand side of part-time work especially from a comparative perspective², i.e. different reasons of establishments to use part-time work and whether different motivations for part-time work also have different outcomes for companies and workers. As for these outcomes we investigate managements' views related to organization of work in the establishment, managements' views of part-time workers' motivation, workers' transitions possibilities between full-time and part-time jobs, part-timers' promotion prospects, and firms' possible difficulties in retaining staff in cases when part-time work is mainly introduced as a response to establishment needs or as a response to employees' wishes. Differing motivations of establishments may shape how part-time jobs are used and the nature of part-time work (Anxo et al., 2008). These differences might also partly explain differences in the incidence of part-time work across countries.

¹ On average 32.4 % of female employees in comparison to 7.9 % of men worked part-time in the EU25 in 2007 (36.6 % vs. 8.5 % in the EU15) and the share of female part-timers accounted around 77 % of all part-timers (Eurostat, LFS). Of the Nordic countries as high shares as 41.4 % and 36.6 % of female employees worked part-time in Sweden and Denmark and 18.2 % in Finland in 2008, whereas the share of male part-timers was clearly lower in all the three countries (13.3 % in Sweden, 14.2 % in Denmark and 8.9 % in Finland).

² Earlier literature is summarised in Section 2.





The purpose of this paper is to investigate the extent and determinants of employer demand for part-time work in the three Nordic countries (Denmark, Finland and Sweden) by making a distinction between establishments' two main reasons for introducing part-time work, i.e. establishment needs and wishes of employees. Another novel feature in our paper and a contribution to the earlier literature is that we also investigate outcomes from different motivations for using part-time work for workers and companies.

The structure of the paper is as follows. Section 2 summarises earlier literature about the firms' motives for using part-time work and earlier results from empirical work. Section 3 introduces the data and provides descriptive evidence of the incidence of part-work in the Nordic establishments also taking into account firms' reasons for introducing part-time work. Section 4 presents results from statistical analyses of the determinants of part-time work based on establishment needs and employees' wishes. Section 5 investigates the outcomes from different reasons for using part-time work. Finally section 6 summarizes and discusses the main findings of the paper.

2. EMPLOYERS' REASONS FOR USING PART-TIME WORK - EARLIER LITERATURE

Explaining differences in the incidence of part-time work across companies is complex as the incidence can result from workers' preferences over their working time, firms' demand for part-time work, and also from national institutions and policies, i.e. how much the laws, collective agreements and the social security system allow, promote or prevent the use of part-time work (Allaart and Bellman, 2007; Anxo et al., 2007).

In the literature several motivations for firms' demand for part-time work have been presented. In Smith et al. (1998) these motives/factors are grouped into five broad categories: factors related to (i) production system, (ii) competition conditions (competitive pressures to adopt flexible practices to compete on price or extended operating hours), (iii) regulation of the labour market (as related to working time, wages and social security) (iv) activity of the government and trade unions, and (v) labour market conditions. These factors interact to produce both national and sectoral variations in the extent and type of part-time employment (Smith et al., 1998).

Production system based motives are related to the need to organize work schedules in order to meet both regular and irregular variations in labour demand and to cover extended operating hours. Flexible hours have also been justified by the pressure to lower capital and labour costs. According to several studies the use of part-time work is most common in such establishments where peaks in production, temporary changes in labour demand, longer operating hours and changing workloads are typical (e.g. Julkunen ja Nätti, 1995; Friesen, 1997; Houseman; 1998; Kauhanen, 2003 & 2008). For example, the greater use of part-time work in the service sector has been explained by the fact that service sector is more labour intensive and the share of labour costs is larger than in the manufacturing industry (Bosch, 1995). Therefore greater productivity advantages can be obtained in the service sector from the closer use of labour to correspond to the fluctuations in the demand for services. Friesen's (1997) study with US company data showed that in the service sector firms part-time labour is adjusted more rapidly than full-time labour to correspond to the fluctuations in demand for services. Houseman's (1998) study with US company data found that employers regard longer opening hours and 'easening' the work load during demand peaks as the most important reasons for the use of part-time work. The study also found that lower labour costs were borne by employers by the use of part-time labour. Kauhanen (2003 & 2008) found in the Finnish private service sector that longer opening hours, variation of work load over the day and profitability/cost reasons were among the most important reasons in the retail trade and in hotels and restaurants, whereas in real estate maintenance and cleaning and in guard service customers' needs and nature of the activity belonged to the most important reasons. Nollen and Axel (1998) point out that in calculating cost-effectiveness of part-time work productivity and fixed employment costs such as training and length of service should also be included in addition to wages and benefits.

Allart and Bellman's (2007) (see also Tijdens, 2003) categorisation of employers' motives includes besides pure demand side motives also the supply side motives, i.e. the preferences of workers. They distinguish three main categories: (i) need for cheap and flexible labour (secondary workers strategy) (ii) optimal staffing (iii) accommodation strategy, i.e. to meet the preferences of workers. In investigating demand side reasons for use of part-time work in Germany and in the Netherlands they find evidence that accommodation motive dominates although this evidence is stronger for the Netherlands than for Germany. According to an employer survey on motives to use part-time work in companies in eight EU countries (Bielenski, 1994) 44 percent of managers stated financial or organizational reasons as the main motivation to use part-time work, 33 percent stated employees' wishes as the main motivation, and 22 percent stated employers' needs and employees' wishes equally important. Anxo et al. (2007) also investigate part-time work patterns in companies across EU countries in a comparative study dealing to some extent also with the reasons for part-time work.

3. DATA USED AND PREVALENCE OF PART-TIME WORK IN THE NORDIC ESTABLISHMENTS

3.1 Data

To investigate the extent and determinants of employer demand for part-time work according to the firms' motives for part-time work and its consequences in the Nordic companies we use a large-scale sample survey in establishments, the Establishment Survey on Working Time and

³ Tijdens (2003) explains the characteristics of women's part-time employment in the EU countries in terms of their gender roles and companies' labour use strategies. She utilises European working conditions survey in her empirical analyses.

Work-Life Balance (ESWT⁴), carried by the European Foundation for the Improvement of Living and Working Conditions in 21 EU Member States including Finland, Sweden and Denmark in 2004-2005⁵. About 1,000 establishments with at least ten employees covering both the private and public sector from each country were included in the survey⁶ and the survey is representative for all establishments with 10 or more employees. As regards these three Nordic countries, the survey was conducted together in over 3,000 establishments (see Table 1). The survey covered 68 % of the comparable establishments and 66 % of the employees in comparable establishments. All NACE-sectors except agriculture, fishing and household sector were included. Our data is based on the interviews of the management's representatives in these establishments.

Table 1. Total number of establishments and the share of establishments with at least one part-timer, weighted and unweighted sample.

Country	Establi	Establishments, weighted			olishments, sample	
	Total	With part-timers	%	Total	With part-timers	%
Denmark	53 100	37 900	71	1 024	741	72
Finland	32 600	17 100	52	1 006	626	62
Sweden	67 700	53 300	79	1 016	829	82
EU 21	2 676 700	1 673 700	63	21 031	13 245	63

The company survey data suit excellently for investigating extent and determinants of employer demand for part-time work and outcomes for workers and companies across three Nordic countries due its rich data content. We can study the extent to which companies use part-time work and also the main motivations of companies for using part-time work. With this data we can also put under closer scrutiny whether differing motivations for using part-time work also have different outcomes for companies and workers as the survey contains expectations and experiences of the managers related part-time work across different establishments.

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⁴ For more information, see the background reports 'Establishment Survey on Working Time and Work-life Balance (ESWT 2004/2005)': Technical Report, Sampling Report, Documentation of Questionnaires and The Tables by Country. UK Archive Study Number 5655.

⁵ Since this survey concerns only EU countries of the Nordic countries Norway and Iceland were not included in the survey, and therefore they could not be included in our study.

⁶ In the interpretation of the outcomes it is also important to remember that the results concern only establishments with at least 10 employees. Bigger establishments might have more resources to organise working time in such a way that the wishes of employees are taken into account.

3.2 Definitions of part-time work in the Nordic countries

It is noteworthy that differences in working time regulations and the lack of simple definitions for full-time and part-time work can complicate country comparisons to some extent (e.g. Bolle, 1997). Therefore before going to the comparisons in use of part-time work in the Nordic establishments it is useful to briefly go through the main differences in working time regulations between these three Nordic countries.

In Finland and Sweden maximum average weekly working hours are set by legislation at 40 hours per week, but at 48 hours in Denmark (TemaNord, 2010). However, our data show that contracted normal working times vary much between these countries but also between sectors. In most Danish and Swedish establishments working time contracts follow the national normal working time, but in Finland in the majority of establishments the contracted hours are shorter. In Finland 60 percent of the establishments have contracts for maximum of 38 hours or less, whereas in Sweden two thirds of the establishments have contracts for 40 hours. In Denmark most of the establishments and their employees have contracts according to the normal Danish full-time work, i.e. for 37 hours per week (Table 2).

Table 2. The share of the establishments (%) according to normal weekly working hours for full-time staff in collective agreements or in individual work contracts.

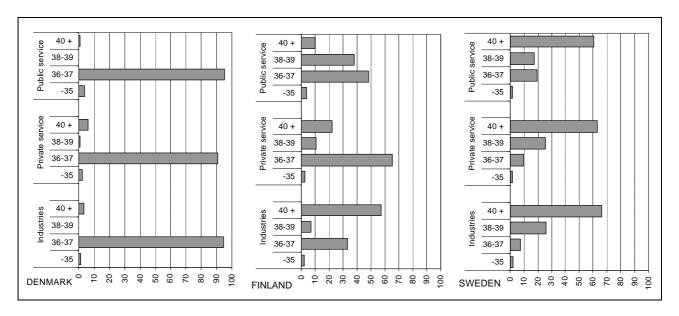
Normal weekly	Denmark	Finland	Sweden	Nordic*	EU-21
working hours					
Establishments, %	100	100	100	100	100
1 - 35	3	4	1	2	14
36 - 37	93	56	13	50	15
38 - 39	0	10	18	10	19
40	2	27	66	35	45
41+	2	3	2	2	6

^{*} The three Nordic countries on average.

The division of the employees by sectors according to the length of contracted working time also shows different patterns for each of the three Nordic countries (Figure 2). In Denmark contracted working time varies hardly at all between the sectors and over 90 % of the employees work in establishments with the Danish normal working hour contracts. Even though 40 hours is in Finland and in Sweden normal regulated full-time working time, it is used as a basis to contracts more often in Sweden than in Finland, and in all the sectors. In Finland only in the private sector without services contracts for 40 hours are most common.

The average contracted normal weekly working time for full-time staff is shortest in Denmark (37.1 hours), then in Finland (38.1 hours) and longest in Sweden (39.3 hours).

Figure 2. The division of contracted full-time working hours by sector in the three Nordic countries, the shares of employees, %.



Great variations in the normal or full-time working hours imply that part-time work in one context in one country may mean full-time work in another industry or country and vice versa. For example, before the statistical definition of part-time work was harmonised in the European Labour Force Survey (LFS) in 1997, Finland applied a statistical definition based on a 30-hours threshold, but Sweden, Norway and Iceland applied a 35-hours threshold (Forssell and Jonsson, 2005). The new definition of part-time work was based on the respondents' assessment of the nature of the job. Sweden adopted this definition of part-time work in 2005. In addition, there also exist differences in collective agreements as regards what is considered as part-time work.

3.3 Prevalence of part-time work in the Nordic establishments

The prevalence of part-time work in establishments is based in our data on the employers' own assessment about the nature of work. On average 28 % of the Nordic establishments with at least 10 employees had no part-time workers, but only 18 percent of the employees worked in these establishments (see Table 3 for these figures). At the EU-21 level the prevalence of establishments without part-time work at all was much higher (36 %), but only five percentage

points higher share of the employees worked in these establishments than in the three Nordic countries. Because the share of employees in the establishments with no part-time employees is smaller than the share of corresponding establishments, the results indicate that part-time work is more common in the larger than smaller establishments. As a rule, however, the sector matters more in working time arrangements than the size of the establishment.

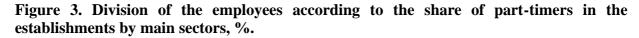
Of the three Nordic countries the share of establishments with at least 10 employees which have no part-time workers is by far highest in Finland (47 %). In Denmark and in Sweden the corresponding shares are around 20 percent. The most common situation is that the share of part-time workers is under 20 percent in those establishments which have part-time workers. The share of establishments in which over half of the employees are part-timers is smaller (10 % in Sweden, 8 % in Denmark, and 5 % in Finland).

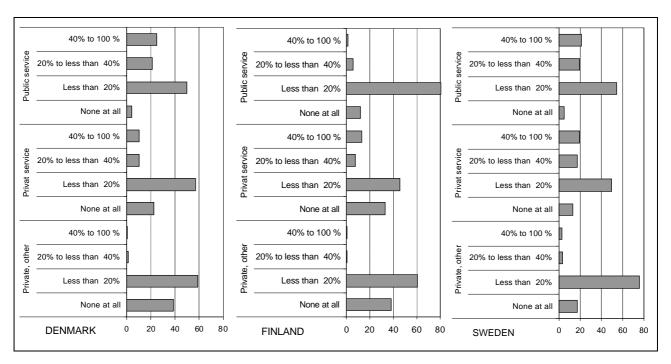
Table 3. The share of employees and establishments (%) according to the incidence of part-time work in the establishment (EWST 2004-2005, management interviews, employee and establishment weights*).

Part-time	De	nmark	Fi	nland	Sweden		Е	U 21
proportion %	Empw	Estw	Empw	Estw	Empw	Estw	Empw	Estw
None at all	20	28	29	47	11	20	23	36
1% - 20%	54	46	60	39	57	45	49	39
20% - 40%	12	11	5	6	14	15	14	11
40% - 60%	7	6	3	3	7	9	7	6
60% - 100%	6	8	3	5	9	10	7	7
Total	100	100	100	100	100	100	100	100

^{*} Empw = proportion of employees in the establishments, Estw = proportion of establishments

By sector the highest incidence of part-time work is in the public sector establishments in Sweden and in Denmark, but the incidence is also high in the private service sector establishments in these countries. In Finland establishments with a high share of part-time work concentrate predominantly in the private service sector. On the other hand, there is also a high incidence of no part-time work in Finland in both private services and other private sectors (see Figure 3).





The most common way to organise part-time work in the establishments on average is part-time work with some fixed hours every day. Two thirds of the establishments had this kind of arrangement in the EU-21 countries on average and in the Nordic countries except Finland (Table 4). Almost 60 percent of the Finnish establishments organised part-time work in other fixed cycles, e.g. some fixed days of the week with full-time hours, the other days off. This form of part-time work was also common in other Nordic countries but much rarely in the EU-21 on average. Every fifth establishment organised part-time work with flexible working hours, which can be fixed a few days or hours in advance to the establishments needs. This was more typical to Finland and Sweden than to Denmark and this form of part-time work probably correlates with temporary work contracts.

Table 4. Ways of organizing part-time work in the establishments, % of all establishments with at least one part-time employee. (One establishment may have several types of part-time work simultaneously).

Type of part-time work	Denmark	Finland	Sweden	Nordic*	EU-21
Some fixed hours every day	72.2	37.4	66.4	63.9	69.2
Other fixed cycles	50.5	59.2	59.9	56.5	38.2
Flexible working hours	15.2	24.0	21.4	19.6	26.5
Other forms	5.8	25.2	10.6	11.2	7.4

^{*} The three Nordic countries on average.

4. REASONS FOR INTRODUCING PART-TIME WORK AND THEIR DETERMINANTS IN THE NORDIC ESTABLISHMENTS

As already brought out in section 2 establishments' demand for part-time work may be related to several different factors. These reasons may shape the way how such jobs are used and the nature of part-time work (Anxo et al., 2007). In the ESWT survey representatives of management were asked about the reasons for introducing part-time work in the establishment by the following question: 'Did you introduce part-time work mainly in order to meet economic or organisational needs of the establishment, or in order to meet employers' wishes for shorter working hours?'

On the basis of management interviews, the most common reason for introducing part-time work in establishment in the three Nordic countries is the wishes of employees: around half of the managers stated this as the main reason, which is twice as often as the needs of establishment (24.6 %). Around fifth of the managers stated that both these reasons were equally important. Compared to the corresponding results in the EU-21 on average, the employees' wishes play more important role in the Nordic countries on average (Table 5).

However, in the responses there are also differences between the three Nordic countries. The Finnish managers pointed out clearly more often establishment needs as the main reason (36.5 %) than the Swedish or Danish managers (24.5 % and 24.6 %). Actually in this respect Finland is closer to the EU-21 average than the other two Nordic countries. The wishes of employees were stated as the main reason for part-time work most often by the Swedish managers.

Table 5. Reasons for introducing part-time work, the representatives of the management in the establishments with at least one part-time employee, %.

%	Reason to intro Mainly establishment needs	oduce part-time wo Mainly wishes of employees		Other reasons
EU-21	34.3	38.3	20.9	4.1
Finland Sweden	36.5 24.5	43.2 52.8	17.6 16.7	2.7 5.0
Denmark	19.4	48.3	30.3	2.0
Nordic*	24.6	49.8	21.6	4.1

^{*} The three Nordic countries on average.

There are also great differences in the firms' motivations to use part-time work which can be detected when looking motivations more specifically by industry, sector or firm size and other factors such as age and gender composition in the establishments (see Table 1 in Appendix 1). By industry part-time work mainly as response to the needs of establishment is more common in establishments in retail trade and in hotels and restaurants in all the three Nordic countries⁷. This is not surprising as retail trade and hotels and restaurants are among the greatest utilisers of part-time work in the Nordic countries and these industries are characterized by longer operating hours and changing work loads. There also exist differences by sector: if the establishment is located in private sector managers are more likely to state needs of establishment as the main reason in Finland, but not in Denmark and Sweden. Part-time work as a response to the needs of establishment is also more common in small establishments compared to larger companies in all the three Nordic countries.

Whether part-time work is mainly due to the establishment needs also shows in the working time arrangements. In those establishments where part-time work is mainly based on firms' needs there is higher incidence of work at night, at weekends and of shift work. Likewise, there is also higher incidence of daily, weekly and seasonal workload variations.

Use of part-time work reflecting the wishes of employees is more common in large companies in all the three countries. This might be partly explained by the fact that larger establishments may have more resources to organise working time in such a way that the wishes of employees are taken into account. It also appears that in public sector establishments wishes of employees as a motive for part-time work play more important role than the needs of establishment. In this respect Nordic countries clearly deviate from the EU average. In addition, in those companies where there is possibility to adapt working time there is also more room for introducing part-time work as response to the needs of employees.

It is also useful to look at the characteristics of people who work in part-time jobs in the establishments by making distinction between main reasons for establishments to use part-time work (see Figure 4). Clear differences between the Nordic countries can be identified by the type. As regards 'employer-based' part-time work (i.e. mainly in response to establishment needs), over 80 % of the establishments with part-timers in Sweden, over 70 % in Denmark and over 60 % in Finland include women without children or with grown-up children. In

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⁷ In Finland the main reason for part-time work was the needs of establishment also in other community, social and personal services.

addition, 70 % of the establishments in Denmark, 57 % in Sweden and 33 % in Finland employ women with child caring responsibilities in part-time work. The other common groups of part-timers establishments employ are the students and other groups of young people, which form especially in Finland common groups in employer-based part-time work. The high shares of women without small children working part-time in all the countries can result from different reasons: they may reflect overlapping of voluntary students working part-time, elderly on part-time pension, or women also in involuntary part-time work.

As for 'employee-based' part-time work (i.e. mainly in response to employees' wishes) the most common group of part-timers establishments employ is mothers with small children although in Finland only over 40 % of establishments with part-timers employ this group compared to over 80 % in Sweden and over 70 % in Denmark. All the Nordic countries have, however, introduced options to combine part-time work with parental or child care leaves and to shorten working time when children are below obligatory school age or starters of education, until about 8 years of age. In Finland it is, indeed, more common to switch between full-time work and full-time care than combine care and employment (Haataja, 2005).

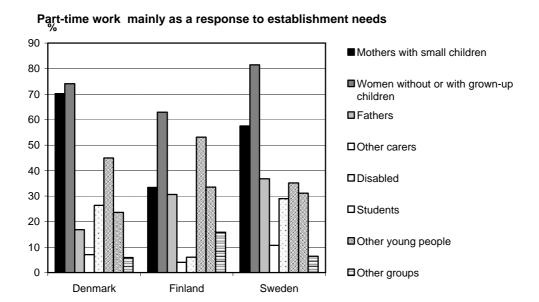
There are also differences between the three Nordic countries in the policies of active labour market measures (ALMP) and in the integration of partly disabled or elderly people in the labour market. For example, in Sweden almost 30 percent of the recipients of sickness or disability benefits use partial benefits which enable them to work part-time. In Finland and in Denmark the corresponding shares were below five percent in 2005 (Hytti, 2008). This difference also shows in the results of the management interviews so that in Sweden a greater share of establishments with part-timers employ disabled persons than in Denmark and Finland.

Furthermore, the share of partly disabled in subsidized employment is less than 10 percent in Finland but more than 50 percent in Sweden and Denmark. Altogether, especially Denmark but also Sweden spend more on ALMP than Finland (TemaNord, 2010).

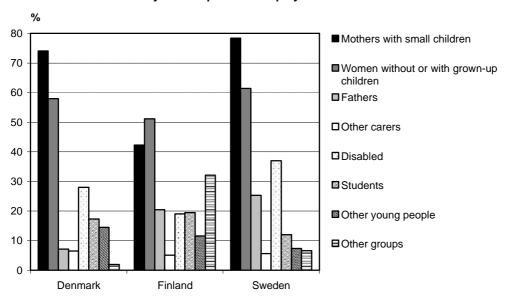
Part-time employment among elderly is supported in Denmark and in Finland by part-time pension schemes, but in Sweden this scheme was abolished in 2000 (Nososco, 2009;

Wadensjö, 2006). In the Swedish establishments it is also less common that there are employees on phased retirement schemes (36 %) than in Denmark and in Finland (45 %)⁸.

Figure 4. Establishments using different types of part-timers in the three Nordic countries, %.



Part-time work mainly as a response to employees' wishes



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⁸ The establishments were asked about the proportion of personnel on phased retirement schemes. The percentages above indicate that there are at least some persons on phased retirement programmes.

4. DETERMINANTS OF EMPLOYER- AND EMPLOYEE-BASED PART-TIME WORK

In order to study the relative importance of different characteristics of establishment to the probability of 'employer-based' (i.e. mainly in response to establishment needs) and of 'employee-based' part-time work (i.e. mainly in response to employees' wishes) in establishment we employ logit models (see, for example, Greene 1997).

The dependent variable in the first logit model is the incidence of 'employer-based' part-time work which is an indicator variable which gets value 1 if there is at least one part-time worker in the establishment and the main reason for part-time work is the needs of establishment. The dependent variable in the second logit model is the incidence of 'employee-based' part-time work which is an indicator variable which gets value 1 if there is at least one part-time worker in the establishment and the main reason for part-time work is the needs of employees. Explanatory variables include, among other things, variables related to the industry of the establishment, sector, company size, working time arrangements, the age and sex composition of work force in the company (see the full list in Table 1 in Appendix 1). We exploit ESWT management interviews data in the estimations.

Tables 1A and 1B (see Appendix 2) report the odds-ratios calculated from the estimated logit models for employed-based and employee-based part-time work for the three Nordic countries and the total EU. The odds-ratios show the odds of a certain outcome faced by one group relative to another. In the model there is a reference group for each background variable against which the odds-ratio is measured. When any two groups are compared, other characteristics are held constant.

Let us take an example of the interpretation of the odds-ratio by looking at the impact of the company size on the probability of 'employer-based' part-time work (i.e. mainly in response to establishment needs). The odds-ratio of 4.43 for small company size for Finland in Table 1A in the appendix shows that small establishments have over four times as high probability of employer-based part-time work compared with large establishments in Finland. In Denmark the impact of the company size is even larger: small establishments have over seven times as high probability to demand part-time work as response to establishment needs compared with large Danish companies.

As regards the industry impact the results imply that probability of part-time work mainly as response to the needs of establishment is significantly more common in establishments in retail trade, in hotels and restaurants, in transport, storage and communication, in education, and in other community, social and personal services compared with establishments in mining and manufacturing industries in all the three Nordic countries. The probability of employer-based part-time work is about 1.5 times greater in the private sector establishments in Finland, whereas in Denmark the corresponding probability is 1.2 higher in the public sector. For Sweden there were no significant differences between the private and public sector.

Not surprisingly, in establishments where work is done at night and at weekends, the probability of employer-based part-time work is significantly larger compared to those establishments where night work or weekend work is not done. Again this result applies to all three Nordic countries. In Finland and Sweden also shift work increases likelihood of employer-based part-time work, but not in Denmark. In Finland and in Denmark establishments that use short-term contracts have also higher probability of employer-based part-time work, whereas this does not apply to Swedish establishments.

According to the results, the high incidence of female employees (60% or more) lowers the probability of employer-based part-time work in Finland and Sweden: in establishments with lower incidence of female employees the probability of employer-based part-time work is around 1.2 times higher in Finland and 1.3 times higher in Sweden compared to establishments with high incidence of female employees.

As far as the determinants of employee-based part-time work are concerned the probability of part-time work mainly as response to the wishes of employees is significantly less common in establishments in retail trade, in hotels and restaurants, in transport, storage and communication, in education, and in other community, social and personal services compared with establishments in manufacturing industries in all the three Nordic countries. Workers preferences do not seem to play as important role in the demand for part-time work in small companies: the probability of employee-based part-time work is from around 1.5 (Denmark) to around 5.2 times (Finland) higher in large establishments. Sector also matters: in Finland the probability of employee-based part-time work in the public sector establishments is nearly three times higher compared to the private sector establishments, whereas in Denmark and Sweden the probability of employee-based part-time work is around 1.6 times higher in the private sector establishments compared to the public sector.

In Sweden the high incidence of female employees in the establishment increases the probability of employee-based part-time work, i.e. part-time work based on workers' preferences but not in Finland or Denmark. As regards Finland, this difference might partly be explained by the fact that part-time work is so much concentrated in Finland in the private service sector, where firms' needs play very important role in the demand for part-time work.

There also exist interesting differences between the three countries in the impact of the age composition of the workforce. In Finland and Sweden employees' over 50 appear to increase the probability of employee-based part-time work in establishments, but not in Denmark. In Finland the partial retirement schemes may play a role in this, and in Sweden commonly used part-time benefits for the disabled and for sickness, too, may explain this (Hytti, 2008).

5. OUTCOMES FROM EMPLOYER-BASED AND EMPLOYEE-BASED PART-TIME WORK

It is interesting to see whether the consequences/outcomes for establishments and workers from 'employer-based' and 'employee-based' part-time work differ from each other, and whether there exists differences between the establishments in the three Nordic countries. As follows we investigate *managements' views* related to organization of work in the establishment, part-time workers' motivation, workers' transitions possibilities between full-time and part-time jobs, part-timers' promotion prospects, and firms' difficulties in retaining staff in establishments with a high share of part-time work. When part-time jobs are introduced in response to the wishes of employees one might expect that they would more easily fit with the needs of working families with caring responsibilities or other needs for less workload of the employees.

The implications of part-time work for the *organization of work* are viewed by managers in a different way depending on whether the demand for part-time work is mainly based on the establishment needs or the wishes of employees. Part-time work, when it is mainly based on the needs of the companies, is regarded more often to make work organization easier than more complicated. This result concerns especially the judgements of management in Finland (see Table 6), but the shares of establishments that are of this opinion are also higher in Denmark and Sweden compared to the EU-21 average. This difference between Finland and the other two countries persists while controlling the impact of other relevant background variables such

as e.g. firm size, industry, sector and the share of female employees (see Appendix 3). However, the managers in the Danish and Swedish establishments are most often of opinion that employer-based part-time work makes no difference for organization of work.

When part-time work is based mainly on the wishes of employees, it is perceived to make work organization more complicated by around 40 % of the Nordic establishments on average (compared with only 10 % of establishments that view it to ease work organization). This result is strongest in the Finnish establishments (58 % vs. 31 % and 41 %). When we control the impact of background variables, this difference remains across these three countries (see Appendix 3).

Again, the Danish and Swedish managers most often were of the opinion that part-time work has no difference for organization of work, whereas the Finnish managers were more seldom of this opinion.

Table 6. The impact of part-time work on work organisation, part-time work makes work organization..., % of establishments.

	Denmark	Finland	Sweden	Nordic*	EU-21
Part-time work mainly response to:					
Firms' needs, total	100	100	100	100	100
Easier	34.1	55.2	36.5	40.2	30.2
More complicated	18.5	11.2	22.3	18.7	18.3
No difference	45.9	30.0	41.0	39.8	49.6
Don't know, no answer	2.2	3.5	0.1	1.3	1.8
Wishes of employees, total	100	100	100	100	100
Easier	10.2	10.7	9.1	9.7	8.4
More complicated	31.0	58.2	40.6	39.8	41.3
No difference	56.4	28.7	49.2	48.9	48.7
Don't know, no answer	2.3	1.8	1.0	1.6	1.5

^{*} The three Nordic countries on average.

As regards the views of managers about the *motivation of part-timers*, in all the three Nordic countries a great majority of managers find no difference in the part-time and full-time workers' motivation (and also in the EU-21 on average) irrespective of the reason for part-time work. However, there also exists an interesting difference between the three Nordic countries: in Finland the representatives of the management think more often than in Sweden or Denmark that part-time workers are less motivated than full-time employees, and this applies to both establishments that demand part-time work mainly in response to firms' needs and mainly in response to employees' wishes. This difference in the views between Finland and the other two

countries remains while controlling for the impact of background variables. The same pattern is found when looking at the shares of establishments judging part-timers as "more motivated".

Table 7. Motivation of part-timers in the establishments with part-time employees, % of establishments.

Part-time work mainly response to:	Denmark	Finland	Sweden	Nordic*	EU-21
Firms' needs, total	100	100	100	100	100
More motivated	2.6	12.4	8.0	7.5	10.1
Less motivated	8.7	14.3	12.6	11.9	9.5
No difference	82.3	71.3	76.5	76.9	77.7
Don't know, no answer	5.4	2.1	2.8	3.68	1.7
Wishes of employees, total	100	100	100	100	100
More motivated	7.6	10.1	8.0	8.1	9.6
Less motivated	5.3	15.4	4.8	6.4	8.4
No difference	83.9	69.5	84.7	82.4	80.3
Don't know, no answer	1.3	5.1	2.5	3.1	1.8

^{*} The three Nordic countries on average.

One would expect that in establishments where part-time work is mainly based on workers' preferences it would be easier to switch *from part-time to full-time work* and vice versa than in firms where part-time work is mainly based on firms' needs. This expectation is also supported by the fact that the legislated or contracted forms of employee based part-time work of full-time employees are normally temporary by nature and contain rights to return full-time work after regulated periods. Results reported in Table 8 confirm these expectations.

Table 8. The possibilities of part-timers to change from part-time to full-time work in the establishments with part-timers, % of establishments.

Part-time work mainly as response	Denmark	Finland	Sweden	Nordic*	EU-21
to:					
Firms' needs	100	100	100	100	100
Usually gets full-time job quickly	6.4	9.1	8.1	7.9	14.7
Has to wait for some time	35.6	35.3	36.8	36.1	24.1
Possible only exceptionally	21.2	22.7	23.1	22.5	22.7
Practically no chance	29.0	27.3	25.9	27.1	29.2
Not applicable, no answer	7.7	5.7	5.9	6.4	9.2
Wishes of employees, total	100	100	100	100	100
Usually gets full-time job quickly	38.4	45.3	50.4	45.6	42.3
Has to wait for some time	24.8	25.3	28.6	26.8	24.8
Possible only exceptionally	17.4	11.3	7.5	11.3	11.7
Practically no chance	4.6	11.1	6.4	5.8	10.1
Not applicable, no answer	14.9	11.4	7.1	14.3	11.0

^{*} The three Nordic countries on average.

If part-time employees want to change from part-time work to full-time work, they have different possibilities depending on whether part-time work in establishment is organised to respond to the employers' or to employees' needs. If employers' needs are the main reason, chances to quick changes exist less often, only in 7.9 percent of establishments on average in the three Nordic countries. When part-time work is based on employees' wishes the corresponding share of establishments is considerably higher, varying from 38.4 % to 50.4 % in the Nordic countries. Statistically significant differences remain between countries when the impact of background variables is controlled for. In contrast, assessments of 'practically no chance' are clearly higher (varying from 26 % to 29 %) when part-time work is mainly introduced to the needs of establishments.

There also appears to be differences in the judgements of management about promotion prospects of part-timers according to the main motivation of part-time work in the Part-timers' promotion prospects are evaluated to be worse ("slightly or establishment. significantly") considerably more often by Finnish managers (42.2 %) when part-time work is employee-based compared to employer-based part-time work (26 % of the establishments). Corresponding differences are much smaller for Sweden and Denmark. It is also interesting that in Sweden and Denmark managers assess the promotion prospects to be worse slightly more often when part-time work is employer-based compared to employee-based part-time work. In this respect Finland resembles more the EU-21 average and the deviation from other Nordic countries is considerable: promotion prospects of part-timers are assessed by Finnish managers as significantly worse than those of a full-timer 2-3 times more often than by Swedish or Danish managers when part-time work is based on wishes of employees. This difference endures when the impact of background variables is taken into account. This might also partly explain that voluntary part-time schemes in Finland are used to a lesser extent compared to other Nordic countries.

Part-time work is quite commonly regarded by part-timers as a transitory phase in their working careers and it is known from earlier studies (Kauhanen, 2003) that part-time workers change jobs more often than full-time workers. Among other things, promotion prospects, earnings, possibilities to change from part-time work to full-time work, and possibilities to reconcile work with family-life in the present job are all likely to affect this decision.

Table 9. Promotion prospects of part-timers compared with those of a full-timer with comparable qualifications, opinions of the management, % of establishments (ESWT 2004-2005, management interviews).

	Denmark	Finland	Sweden	Nordic*	EU
Part-time work mainly as response to:					
Firm' needs, total	100	100	100	100	100
Better than those of a full-timer	0.2	1.5	1.5	1.1	1.7
About the same	54.9	62.6	60.2	59.3	61.2
Slightly worse	13.9	13.4	15.8	14.7	13.1
Significantly worse	16.1	12.6	11.4	13.0	11.6
Don't know, no answer	14.9	9.9	12.4	11.9	12.3
Wishes of employees, total	100	100	100	100	100
Better than those of a full-timer	0.1	0.2	0.1	0.1	1.0
About the same	55.2	47.5	66.1	59.9	60.8
Slightly worse	20.8	27.6	16.9	19.7	20.2
Significantly worse	7.1	14.6	4.4	6.7	9.2
Don't know, no answer	16.7	10.1	12.5	13.6	8.8

^{*} The three Nordic countries on average.

In the company survey data there is also a question about the problems faced by establishment related to *difficulties in retaining staff*. We combined this information with the information about the main motive for introducing part-time work in establishments where the incidence of part-time work is high. It is noteworthy that the share of establishments facing difficulties in retaining their staff is quite low in all the countries. However, there are interesting differences between the three Nordic countries in this by the main motivation for demand for part-time work. In contrast to Sweden and Denmark (also the EU-21), managers in Finland assess that those establishments where part-time work is mainly introduced to the wishes of employees, establishments are encountering more often difficulties in retaining their staff. This difference pertains when controlling for the impact of background variables. This difference might be explained by the fact that in Finland part-time work based on employees' wishes seems be to some extent more harmful for workers' future working careers (e.g. promotion prospects).

Table 10. Difficulties encountered by establishment in retaining staff by the incidence of part-time work, % of establishments where incidence of part-time work is higher than 20 % (ESWT 2004-2005, management interviews).

	Denmark	Finland	Sweden	Nordic*	EU-21
Part-time work mainly as response to:					
Needs of firms	12.3	6.0	13.2	11.7	9.7
Wishes of employees	1.4	12.8	4.5	4.0	7.2

^{*} The three Nordic countries on average.

6. CONCLUSIONS

On the basis of our results we cannot conclude that there exists a clear Nordic model in the firms' demand for part-time work. There are clear differences not only in the incidence of part-time work, but also in the firms' reasons for introducing part-time work between the three Nordic countries. The share of part-time work in Finnish establishments is on average remarkably lower than in Swedish or Danish firms. In addition, in Finland establishments that have high incidence of part-time work are predominantly concentrated in the private service sector, whereas in Sweden and Denmark they are also concentrated in the public sector establishments. The Finnish managers also assess more often the needs of establishments as the main reason for part-time work than Swedish or Danish firms, although in all these countries preferences of workers are stated as the most common reason for part-time work.

As regards the determinants of both employer-based and employee-based part-time work in all the three Nordic countries industry, sector and company size, working time arrangements as well the composition of the work force play role. It appears that smaller firms cannot respond to the wishes of employees' to the same extent than in large firms, and in these establishments' needs play more important role in introducing part-time work. Moreover, establishments where working time arrangements include work at uncomfortable hours such as at night and weekends that are often less compatible with work-life balance also have a higher probability of part-time work mainly as response to the firms' needs.

Our results also indicate interesting differences in the outcomes of employer-based and employee-based part-time work for establishments and workers (as evaluated by the management side). In establishments where part-time work is mainly introduced as response to workers' preferences, possibilities of changing from part-time to full-time work are assessed to be better. In the assessments about the promotion prospects of part-time workers compared to full-time workers Finnish managers had more often negative assessments than the Swedish and Danish managers.

The assessments of managers in Finland as regards the motivation of part-time workers and the organization of work were to some extent more negative when part-time work was introduced in response to wishes of employees compared to the Swedish or Danish managers' judgements. Most commonly managers in all countries, however, saw no difference in part-timers' motivation compared with full-time employees.

Differences in the Nordic managers' assessments about the impact of part-time work on the establishments and on their employees can partly result from different working time regimes in the Nordic countries. The shortest contracted working times exist in Denmark, long working times are most common in Sweden, and the greatest variations in working time by sectors seem to occur in Finland, where part-time work is most rare. The concept of part-time work also varies also across Nordic countries: part-time work in one context and in one country can be full-time work in another context and in other country.

Part-time has typically been the most common way for women to enter labour market in the Nordic countries except for Finland. All the Nordic countries have introduced policies which encourage employees to work part-time time when working full-time work is difficult due to e.g. disablement or care responsibilities. These options, however, have a longer history in Denmark and in Sweden than in Finland, where employees typically change between full-time absence and full-time work when possible. That is why establishments in Sweden and in Denmark may have more routines and experience of organising working time schedules according to the wishes of their employees than establishments in Finland, which in part may also explain Finnish employers' more often negative attitudes towards employee-based part-time work. On the other hand, unpopularity of statutory part-time schemes among employees in Finland may be affected by employers' often negative attitudes towards employee-based part-time work. Different prevalence and working-time cultures alongside with differences in the national economies and institutions can thus have impact on the experiences of the management about part-time work and part-timers.

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Appendix 1.

Table 1. Establishment needs (EN) and wishes of employees (WE) as the main motivation for use of part-time work (%) in Finland, Sweden and Denmark and the EU-21 (%).

	Fin	land	Sw	eden	Deni	mark	EU	J- 21
	EN	WE	EN	WE	EN	WE	EN	WE
Industry:								
Mining and								
quarrying	100.00	0.00	_	_	_	_	34.8	36.6
Manufacturing								
industries	26.5	49.1	14.6	70.4	11.0	69.6	29.3	45.9
Electricity, gas and	20.1	70.1	17.7	82.3	0	63.1	34.5	46.9
water supply		, 0.1	1,,,	02.0		32.12		,
Construction	13.3	65.7	16.9	63.5	36.0	44.2	32.6	38.5
Retail, repair	45.6	29.0	33.4	40.9	11.9	54.5	35.0	36.2
Hotels and	15.10	27.0	33	10.5	11.,	2 1.2	33.0	30.2
restaurants	59.8	21.6	61.5	26.2	32.0	38.3	50.5	17.1
Transport, storage	33.6	55.1	46.4	22.0	25.0	60.9	41.6	40.1
and communication	33.0	33.1	70.7	22.0	23.0	00.7	71.0	40.1
Financial								
intermediation	34.6	24.7	0	93.6	1.9	83.2	13.8	61.4
Real estate, renting	34.0	∠ ¬,,,	Ŭ	75.0	1.7	03.2	13.0	01.4
and business	41.3	40.9	18.1	57.8	10.2	70.8	25.6	49.3
activities	71.5	40.7	10.1	37.0	10.2	70.0	23.0	77.3
Public								
administration	9.2	76.5	9.5	70.3	9.7	62.6	29.4	41.1
Education	42.5	49.1	15.3	64.3	24.1	35.1	42.1	35.4
Health and social	42.3	77.1	13.3	04.5	24.1	33.1	72.1	33.4
work	36.5	37.0	29.2	43.4	29.8	24.3	35.9	32.4
Other community,	30.3	37.0	27.2	43.4	27.0	24.3	33.7	32.4
social and personal	57.4	31.2	37.0	39.3	23.0	43.1	45.4	27.3
services	37.4	31.2	37.0	37.3	25.0	75.1	43.4	21.3
Sector:								
private sector	40.6	35.3	25.2	54.6	14.6	60.4	33.5	39.7
public sector	26.6	62.4	22.6	50.97	24.7	33.8	36.4	36.8
	20.0	02.4	22.0	30.97	24.7	33.0	30.4	30.8
Company size:	11.6	38.1	26.6	51.7	21.0	46.2	37.0	36.4
small	41.6							
medium	23.1	57.9	17.7	55.8	13.9	56.3	25.5	47.2
intermediary	21.6	49.9	8.1	68.3	8.1	59.7	19.3	50.7
large	14.4	69.3	16.1	56.7	7.7	55.2	15.8	50.3
Working time								
arrangements:	20.0	50 6	110		1.5.2	50.0	20.2	44.7
Day work	28.0	53.6	14.8	63.5	16.3	52.2	30.3	44.7
Night work	42.2	35.3	40.7	33.9	30.0	35.1	39.5	31.6
Weekend work	47.8	29.7	37.4	38.0	25.2	39.6	39.5	31.3
Shift work	45.5	31.1	39.7	38.0	25.1	41.7	40.0	30.7
Daily workload								
variations	44.6	34.7	31.5	49.0	26.1	39.2	38.2	33.0
Weekly workload								
variations	44.2	29.7	28.5	48.3	21.1	44.1	34.4	36.0
Seasonal workload	37.7	40.8	30.6	47.6	21.0	47.4	34.8	37.4
variations								

Short-term contracts	37.4	41.6	24.6	50.8	22.5	43.9	33.0	39.4
High incidence of								
overtime	41.9	40.6	27.0	47.8	19.5	48.5	35.2	37.4
Possibility to adapt the working time	32.2	47.4	20.5	56.2	15.9	55.3	31.8	41.1
Increased number of employees	33.5	46.2	21.9	56.3	17.5	50.4	34.8	39.5
Characteristics of								
employees:								
High incidence of female employees	36.7	40.0	23.8	52.9	21.7	35.8	36.4	34.4
High incidence of male employees	36.2	46.3	25.2	52.6	17.3	58.2	25.2	52.6
Employees younger								
than 30	36.6	42.2	24.9	51.0	19.6	49.4	34.2	38.7
Employees older								
than 50	35.8	44.7	23.7	53.5	19.69	46.9	33.5	39.4

Source: ESWT 2004-2005, management interviews.

Appendix 2. Determinants of employer-based and employee-based part-time work in establishments, results of logit models.

Table 1A. Determinants of employer-based part-time work in establishments.

	Denmark	Finland	Sweden	EU21
Independent variable	odds-ratio	odds-ratio	Odds-ratio	odds-ratio
Industry:				
Constructing	6.177 ***	0.528 ***	1.402 ***	1.170 ***
S	(0.550)	(0.078)	(0.096)	(0.010)
Retail, repair	1.396 ***	1.976 ***	2.817 ***	1.126 ***
•	(0.105)	(0.126)	(0.144)	(0.006)
Hotels and restaurants	4.124 ***	2.190 ***	2.983 ***	1.78 ***
	(0.444)	(0.225)	(0.287)	(0.014)
Transport, storage and	2.982 ***	1.189 *	2.487 ***	1.455 ***
communication	(0.343)	(0.115)	(0.150)	(0.013)
Financial intermediation	0.223 ***	1.488 ***	-	0.398 ***
	(0.041)	(0.152)		(0.005)
Real estate, renting and	0.944	2.276 ***	1.175 ***	0.789 ***
business activities	(0.076)	(0.153)	(0.062)	(0.005)
Public administration	0.787 *	0.528 ***	1.192 *	1.020 **
	(0.098)	(0.058)	(0.120)	(0.009)
Education	2.154 ***	3.675 ***	1.544 ***	1.829 ***
	(0.179)	(0.403)	(0.095)	(0.015)
Health and social work	1.872 ***	1.778 ***	0.863 **	1.063 ***
	(0.164)	(0.180)	(0.053)	(0.009)
Other community, social and	1.655 ***	3.276 ***	2.641 ***	1.516 ***
personal services	(0.146)	(0.276)	(0.155)	(0.013)
Sector:				
Public sector	1.241 ***	0.678 ***	0.966	1.024 ***
	(0.068)	(0.040)	(0.034)	(0.006)
Company size:				
small	7.367 ***	4.431 ***	3.674 ***	3.715 ***
	(2.575)	(0.863)	(0.562)	(0.084)
medium	3.595 ***	1.585 **	1.692 ***	2.216 ***
	(1.260)	(0.311)	(0.261)	(0.051)
intermediary	1.823	1.615 **	0.424 ***	1.413 ***
	(0.700)	(0.355)	(0.082)	(0.036)
Working time				
arrangements:				
Night work	1.454 ***	1.074	2.852 ***	1.163 ***
	(0.072)	(0.060)	(0.116)	(0.006)
Weekend work	1.161 ***	1.508 ***	1.664 ***	1.330 ***
	(0.053)	(0.071)	(0.052)	(0.006)
Daily workload variations	1.918 ***	1.193 ***	1.233 ***	1.101 ***
	(0.076)	(0.061)	(0.032)	(0.005)
Weekly workload variations	0.625 ***	1.397 ***	1.121 ***	0.850 ***
	(0.025)	(0.057)	(0.029)	(0.003)
Shift work	0.948	1.712 ***	2.486 ***	1.30 ***
	(0.041)	(0.077)	(0.063)	(0.006)
High incidence of overtime	0.788 ***	1.323 ***	0.941 **	0.989 ***
	(0.026)	(0.062)	(0.026)	(0.004)
Short-term contracts	2.040 ***	1.787 ***	0.880 ***	0.899 ***
	(0.081)	(0.123)	(0.027)	(0.003)
Number of employees has	0.941 *	0.639 ***	0.690 ***	1.029 ***

increased	(0.033)	(0.024)	(0.017)	(0.004)
Characteristics of				
employees:				
High incidence of female	0.985	0.836 ***	0.742 ***	1.045 ***
employees	(0.040)	(0.036)	(0.021)	(0.004)
Employees younger than 30	1.623 ***	1.057	0.804 ***	0.928***
	(0.099)	(0.066)	(0.029)	(0.006)
Employees older than 50	2.049 ***	1.191 **	0.848 ***	0.866 ***
	(0.146)	(0.091)	(0.041)	(0.005)
Number of observations	34361	16539	49616	1581705
Log likelihood	-14901.303	-9481.0555	-24169.827	-980425.3
LR chi2(25) (Sweden	3527.69		7781.48	80846.87
df.=24)		2870.11		
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.1058	0.1315	0.1387	0.0396

Notes: * 10 % significance level, ** 5 % significance level, *** 1 % significance level Employer weight used in the estimations. Reference categories: Industry: Mining and quarrying + manufacturing industries, sector: private, company size: large, day work, seasonal workload variations.

Table 1B. Determinants of employee-based part-time work in establishments.

	Denmark	Finland	Sweden	EU21
Independent variable	odds-ratio	odds-ratio	odds-ratio	odds-ratio
Industry:				
Constructing	0.311 ***	1.219 *	0.501 ***	0.683 ***
	(0.023)	(0.142)	(0.027)	(0.006)
Retail, repair	0.504 ***	0.548 ***	0.254 ***	0.803 ***
_	(0.026)	(0.035)	(0.011)	(0.004)
Hotels and restaurants	0.196 ***	1.237*	0.362 ***	0.360 ***
	(0.018)	(0.144)	(0.035)	(0.003)
Transport, storage and	0.878	1.711 ***	0.198 ***	0.989
communication	(0.082)	(0.160)	(0.012)	(0.009)
Financial intermediation	2.297 ***	0.236 ***	2.825 ***	1.915 ***
	(0.184)	(0.028)	(0.415)	(0.019)
Real estate, renting and	1.262 ***	0.540 ***	0.551 ***	1.214 ***
business activities	(0.068)	(0.036)	(0.023)	(0.008)
Public administration	1.261 ***	1.137	0.982	0.865 ***
	(0.107)	(0.109)	(0.071)	(0.008)
Education	0.306 ***	0.398 ***	0.732 ***	0.678 ***
	(0.019)	(0.045)	(0.036)	(0.006)
Health and social work	0.337 ***	0.551 ***	0.739 ***	0.915 ***
	(0.023)	(0.058)	(0.037)	(0.008)
Other community, social and	0.492 ***	0.489 ***	0.269 ***	0.611 ***
personal services	(0.032)	(0.042)	(0.014)	(0.006)
Sector:				
Public sector	0.624 ***	2.894 ***	0.634 ***	0.945 ***
	(0.027)	(0.174)	(0.019)	(0.005)
Company size:				
small	0.670 ***	0.191 ***	0.390 ***	0.412 ***
	(0.102)	(0.030)	(0.049)	(0.007)
medium	0.950	0.542 ***	0.512 ***	0.699 ***
	(0.145)	(0.086)	(0.065)	(0.012)

intermediary	1.295	0.420 ***	1.431**	0.891 ***
	(0.231)	(0.075)	(0.209)	(0.017)
Working time				
arrangements:				
Night work	0.659 ***	1.133 **	0.410 ***	0.876 ***
	(0.028)	(0.070)	(0.015)	(0.005)
Weekend work	0.830 ***	0.487 ***	0.674 ***	0.722 ***
	(0.029)	(0.025)	(0.018)	(0.003)
Daily workload variations	0.649 ***	1.038	1.219 ***	0.927 ***
	(0.021)	(0.056)	(0.028)	(0.004)
Weekly workload variations	1.235 ***	0.420 ***	0.800 ***	0.991 **
	(0.039)	(0.019)	(0.017)	(0.004)
Shift work	0.908 ***	0.479 ***	0.582 ***	0.686 ***
	(0.032)	(0.024)	(0.013)	(0.003)
Short-term contracts	0.852 ***	0.346 ***	0.756 ***	1.014 ***
	(0.025)	(0.023)	(0.020)	(0.004)
High incidence of overtime	0.882 ***	0.776 ***	0.795 ***	0.976 ***
	(0.023)	(0.037)	(0.019)	(0.004)
Increased number of	0.690 ***	1.835 ***	1.382 ***	1.034 ***
employees	(0.019)	(0.071)	(0.030)	(0.004)
Characterstics of				
employees:				
High incidence of female	0.607 ***	0.802 ***	1.223 ***	0.807 ***
employees	(0.019)	(0.036)	(0.030)	(0.003)
Employees younger than 30	2.377 ***	0.519 ***	0.698 ***	0.846 ***
	(0.113)	(0.033)	(0.022)	(0.005)
Employees older than 50	0.474 ***	2.118 ***	1.413 ***	0.931 ***
	(0.024)	(0.204)	(0.064)	(0.005)
Number of observations	34361	16539	50387	1581705
Log likelihood	-20133.072	-9026.9579	-30340.129	-1008028.9
LR chi2(25) (Sweden df.=24)	7344.40	4438.58	9057.82	99587.89
Prob > chi2	0.0000	0.0000	0.0000	0.0000
Pseudo R2	0.1543	0.1973	0.1299	0.0471

^{* 10 %} significance level, ** 5 % significance level, *** 1 % significance level Employer weight used in the estimations. Reference categories: Industry: Mining and quarrying + manufacturing industries, sector: private, company size: large, day work, seasonal workload variations.

Appendix 3. Outcomes from employer-based and employee-based part-time work when controlling the impact of background variables.

Part-time work makes work organization...

	Denmark	Finland	Sweden
Part-time work mainly response to:			
Firms' needs			
Easier	0.38	0.59	0.37
More complicated	0.15	0.10	0.25
Wishes of employees			
Easier	0.12	0.14	0.10
More complicated	0.32	0.56	0.39

Notes: The reported numbers in the table above are predictive margins for different countries obtained from probit regression where a number of background characteristics such as country, firm size, industry, sector, share of females, high skilled, short-term work, weekend work, daily and weekly variation in workload in the establishment have been controlled for. Wald tests were used to test for the country differences.

Motivation of part-timers in comparison to full-timers in the establishments with part-time employees

	Denmark	Finland	Sweden
Part-time work mainly response to			
Firms' needs			
More motivated	0.02	0.16	0.07
Less motivated	0.12	0.13	0.10
Wishes of employees			
More motivated	0.08	0.10	0.08
Less motivated	0.06	0.19	0.05

Notes: The reported numbers in the table above are predictive margins for different countries obtained from probit regression where a number of background characteristics such as country, firm size, industry, sector, share of females and high skilled, short-term work, weekend work, daily and weekly variation in workload in the establishment have been controlled for. Wald tests were used to test for the country differences.

Possibilities of part-timers to change from part-time to full-time work in the establishments with part-timers

	Denmark	Finland	Sweden
Part-time work mainly as response to:			
Firms' needs			
Usually gets full-time job quickly	0.09	0.08	0.06
Practically no chance	0.29	0.27	0.25
Wishes of employees			
Usually gets full-time job quickly	0.33	0.45	0.51
Practically no chance	0.06	0.08	0.07

Notes: The reported numbers in the table above are predictive margins for different countries obtained from probit regression where a number of background characteristics such as country, firm size, industry, sector, share of females and high skilled, short-term work, weekend work, daily and weekly variation in workload in the establishment have been controlled for. Wald tests were used to test for the country differences.

Promotion prospects

	Denmark	Finland	Sweden
Part-time work mainly as response to:			
Firms' needs			
Better	0.002	0.021	0.012
Significantly worse	0.20	0.11	0.08
Wishes of employees			
Better	0.002	0.0018	0.0018
Significantly worse	0.056	0.137	0.036

Notes: The reported numbers in the table above are predictive margins for different countries obtained from probit regression where a number of background characteristics such as country, firm size, sector, share of females and high skilled, short-term work, weekend work, daily and weekly variation in workload in the establishment have been controlled for. Wald tests were used to test for the country differences.

Difficulties in retaining staff in establishments where incidence of part-time work is higher than 20 %

	Denmark	Finland	Sweden
Part-time work mainly as response to:			
Needs of firms	0.046	0.025	0.039
Wishes of employees	0.003	0.160	0.033

Notes: The reported numbers in the table above are predictive margins for different countries obtained from probit regression where a number of background characteristics such as country, firm size, industry, sector, share of females and high skilled, short-term work, weekend work, daily and weekly variation in workload in the establishment have been controlled for. Wald tests were used to test for the country differences.