Nonstandard Work Schedules in Twelve European Countries:

A Gender Perspective

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ABSTRACT

This paper addresses three inter-related questions concerning employment at nonstandard times for twelve European countries, utilizing data from the Labour Force Surveys for the year 2005. We consider separately nonday employment -- namely evening, night, and shift work -- and weekend employment. We ask: (1) how prevalent are each of the two aspects of nonstandard work times in these twelve countries; (2) how -- and to what extent -- is engagement in nonstandard work gendered; and (3) does having children influence whether one works at nonstandard times? We find high levels of nonstandard employment in several countries, that nonstandard work is indeed gendered, and that having children appears to have little influence on nonstandard work times both for mothers and fathers. Policy issues relating to European work time are discussed as well as the need for improved standardized measures of work schedule behavior that allow for trend analyses, facilitate country comparisons, and permit more intensive analyses.

Introduction and Background

American policy researchers and advocates have long touted the superiority of European policies that support workers, in particular citing measures that protect workers from excessive employment hours. In the European Union (EU) countries, the regulation of working time has been prominent on policy agendas for decades, at both the supranational and national levels. The EU itself enacted two Directives in the 1990s: the 1993 Directive on Working Time and the 1997 Directive on Part-Time Work. These Directives, which are binding for all EU member countries, had multiple components. Core provisions mandated maximum weekly work hours, minimum annual paid days off, and requirements for pay and benefit parity for part-time workers relative their full-time counterparts. National-level policy implementation was required by 1996 and 2000 respectively.

In Europe, measures aimed at reducing working time, and making shorter-hour work more feasible, have been advocated for reasons that have varied both across countries and over time. In the 1980s, the emphasis was most often on combating unemployment by spreading available work. The 1993 EU Directive on Working Time referred to health and safety reasons (European Communities 2003). In the 1990s, public discourse in a number of countries shifted more towards work-family -- or so-called work-life -- balance (OECD 1998, OECD 2004). In several countries, the stated rationale for reducing work hours now includes encouraging gender equality. Increasingly, the explicit motivation for working time policies is to encourage a more symmetrical

distribution of paid and unpaid work between men and women (see Fagnani and Letablier 2004).

It is interesting that, in both research and policy contexts, there has been so much attention paid to the number of hours Europeans work and to gender gaps in employment, but remarkably little consideration has been given to *when* employees' hours are worked and even less to gender gaps in the timing of work. While some individual countries have measures in place that affect when hours are worked – including limits on retail or commercial hours, limits on workers' night and weekend hours, and pay premiums or compensatory time for night and often Sunday work – the EU itself has been relatively inactive regarding measures that shape the *timing* of contracted work hours. And, paradoxically, the EU measures enacted in the 1990s to reduce total work hours – and the national laws that they catalyzed -- may actually be *raising* the prevalence of employment during nonstandard hours. That is because, in many cases, agreements were struck in which employees gained shorter total hours while employers gained more flexibility as to when those hours could be scheduled (Gornick and Heron 2006).[1] Across Europe, the question of *when* employees work demands increased attention.

Consequences of Nonstandard-Hour Employment

Why is nonstandard-hour employment important? An over-arching concern is that nonstandard work schedules, when mandated by employers, may not be in the interest of most employees. This is reflected in the view that achieving a standard work week is "one of the major achievements of the working class (Hinrichs, 1991:30)." Employment

[1] We return to European working time policies and institutions in a later section of this paper.

at nonstandard hours raises a number of specific concerns, including workers' health and safety, family and marital stability and quality, and child wellbeing.

Health and safety concerns have long been associated with atypical schedules and many scholars of nonstandard schedules focus their attention on these consequences. Ample research from Europe and the U.S. finds that working nonstandard hours, especially night work and rotating shifts, is associated with greater health risks due to changes to an individual's circadian rhythms. Such changes are linked to such biological functions as body temperature, hormone levels, and sleep. As a consequence, late hour workers are subject to higher risks of gastrointestinal disorders, cardiovascular disease, breast cancer, miscarriage, preterm birth, and low birthweight (U.S. Congress 1991; Boggild and Knutsson 1999; Wedderburn 2000). Chronic sleep deprivation and the resulting fatigue and stress can affect job productivity (Tepas and Price 2001) and workplace accidents (Kauppinen 2001).

The social consequences of nonstandard work schedules are also troublesome for families. Working atypical hours[2] and weekends surely changes the temporal structure of family life, particularly among married couples and those with children, constraining the time that family members spend with one another and threatening the quality and stability of marriages, especially when there are children (Presser 2003). Married fathers in the U.S. who work fixed night shifts are six times more likely than their counterparts who

[2] It is interesting that, in the US, we usually refer to nonstandard or atypical hours, whereas Europeans researchers frequently use the term "unsocial" hours. See, for example, Rubery, Smith, and Fagan (1998).

work days to face marital dissolution, after controlling for other factors; for married mothers, fixed nights increase the odds by a factor of three.[3]

There is also worrisome evidence that children whose parents work night and weekend shifts fare more poorly than other children. Mothers with infants who work nonstandard hours have higher levels of depression, which may diminish the quality of the attention and care they provide to children; preschool children whose parents work nonstandard hours are also less likely to be cared for in formal child care settings that may provide important school readiness experiences (Han 2002). Han also finds that children whose mothers ever worked nonstandard hours -- and particularly those who worked more than 30 hours per week in evening, nights or variable shifts -- perform significantly worse on cognitive outcomes at one, two and three years of age.

The possible effects of parents' schedules are not limited to preschool children. Parents who work nonstandard hours, particularly those working evenings and weekends, have less time to spend with their school-aged children (Heymann 2001; Presser 2003) and this may translate into less supervision, help with homework, and other positive inputs. Examining the effects of nonstandard work hours on older children, Heymann (2001) finds that, after controlling for other family and parental characteristics, each hour that a parent works between 6pm and 9pm corresponds with a 16 percent increase in the likelihood that their children score low in mathematics at school. Children of parents who work nights are also nearly three times as likely to get suspended from school. Han and Waldfogel (2005) examined 10 to 14 year olds and found that parental work schedules

[3] Presser's research suggests that the increased tendency for marital instability does not result from spouses in troubled marriages seeking nonstandard hours; the causality seems to run the other way.

have complex links with adolescents' home life and socio-emotional outcomes. For example, levels of depression reported by adolescents are higher when mothers work evenings and when fathers work irregular hours.

It is also true that there may be positive aspects of atypical work hours. Job opportunities may increase with the expansion of the work day and week, drawing workers into employment who might otherwise refrain from paid work. In some countries, the existence of pay premiums may make late and weekend work especially desirable. Further, among parents, women's employment at nonstandard times may reflect -- or increase -- men's willingness to assume caregiving responsibilities while their female partners are at the workplace. There are undoubtedly some workers, both men and women, who because of competing commitments, such as attending school, or personal preference (e.g., being "night owls") voluntarily choose late-hour or weekend employment over a standard daytime weekday-only schedule.

Research Questions

This study is part of a broader research agenda that aims, first, to assess the prevalence of nonstandard work schedules across countries; second, to analyze the distribution of nonstandard schedules within countries; and, third, to link cross-national variation in work-schedule outcomes to policy variation. Cross-country variation in work-schedule behavior clearly reflects multiple factors that vary cross-nationally -- largely private factors relating to employee preferences, demographic factors such as population composition and workforce composition, and societal consumption patterns. National-level policies and collective agreements surely matter as well. However, they may be

less influential than consumer and employer demand factors (that operate independently of policy variation) in determining prevalence levels.

In this paper, we focus largely on descriptive questions about work schedule patterns across countries. We address three inter-related questions about late-hour work, shift work, and weekend employment in Europe, with a focus on twelve European countries.

Our first question is: how prevalent is nonday and weekend employment in these European countries? And how does it vary across countries?

Our second question is how -- and to what extent -- is engagement in nonstandard-hour work "gendered"? Is nonstandard-hour work, like part-time work, disproportionately women's work, or, instead, are employed women under-represented on nonday and weekend shifts? There is a large literature, both European and American, on gender gaps in employment, mostly focusing on male-female differences in employment rates, wages, occupations, industries, and hours worked (see, for example, Gornick 1999; Gornick and Meyers 2003; Rubery et al 1998, 1999). It is well-established that women's work-hour patterns are distinct from men's in all industrialized countries. Everywhere, employed women are much more likely than men to work part-time (fewer than 30 or 35 weekly hours) and, even among full-time employees, women average shorter hours than do their male counterparts. However, relatively little is known about gender differences in *which hours* people work -- that is, how men and women differ in the extent to which they usually work evenings, nights, rotating shifts, and weekends.

In an earlier paper that focused on trends in weekend employment during the period 1992-2001 (Presser and Gornick 2005), we reported that many European countries

have experienced a rise in weekend work, particularly in Sunday employment. Moreover, women's share of weekend employment differs among countries, and there are differences by sector. In all fifteen countries studied, women are more concentrated in the service sector than in the industrial sector, and the service sector disproportionately draws women into weekend work while the industrial sector disproportionately draws men into weekend work.

In the current paper, we extend this analysis of the gendered nature of work scheduling to consider evening and night work as well as rotating shifts, and revisit weekend employment as well, focusing on the year 2005. We ask: Are employed women as likely as employed men to work these schedules, and thus, presumably, to experience its consequent disadvantages as well as to have access to its benefits?

Third, we ask: Does having children matter? Presser (2003) estimates that, in the U.S., one in five employed persons work mostly at nonstandard times (during the evenings, nights or on rotating shifts) and one in three works Saturdays and/or Sundays. Why is there so much employment during nonstandard hours in the U.S.? For the most part, demand-side factors seem to drive the overall prevalence of "round the clock" employment, and there is little national discourse on this issue[4]. Interestingly, in the U.S., there is very little difference by parental status in working at nonstandard times. But since levels are generally high for both men and women, the prevalence of nonstandard work schedules among dual-earner parents is high: 31 percent of couples with a child under age 5 have at least one spouse who works nonstandard hours; it is 60 percent if one includes weekends (Presser 2003). Thus child care issues are highly relevant to working at

[4] The Fair Loabor Standards Act deals with minimum-wage and overtime compensation when individuals work more than 40 hours a week, but it does not deal explicitly with the work shifts of adults.

nonstandard times. Indeed, when mothers are asked directly, over one-third (35 percent) report that child care is their primary reason for working nonstandard hours; suggesting that they can rely on informal care from family and friends at such times. Another nine percent indicated care for another family member as their primary reason (Presser 2003). This proportion may be even higher if the majority of women who indicate "job-related reasons" as the primary reason for nonstandard hours have elected to work in occupations that allow or require them to work during hours when other family members are available for child care. In other words, despite the very limited availability of child care arrangements at nonstandard times, many American parents work at these times. Although we cannot duplicate this U.S. research using these European data, Presser's U.S. results inspire us to ask a parallel question with regard to Europe. Are employed parents in European countries, who would also have to rely primarily on informal child care arrangements to work nonstandard schedules, more or less likely to do so than non-parents?

The remainder of this paper is organized as follows. In the *second* section, we present our data, methods and measures. In the three subsequent sections, we present our results. In the *third* section, we report our findings on the prevalence of nonday and weekend employment across countries. The *fourth* section addresses the question: does gender matter? The *fifth* section reports our finding on differences between parents and non-parents. In the *sixth* section, we discuss preliminary policy implications of our findings. We present conclusions in the final section.

Data, Methods, and Measures

Data and Methods

This study is based on data from the 2005 Labour Force Surveys (LFS) from twelve European countries. The data were obtained from Eurostat, the statistical office of the European Union (EU). Our study countries include four Nordic countries, Denmark, Finland, Norway, and Sweden; two English-speaking countries, Ireland and the United Kingdom; and six Continental European countries, Austria, Belgium, France, Italy, Luxembourg, and the Netherlands. [5] These are all of the countries for which comparable 2005 LFS data on work schedules could be obtained from Eurostat.

The LFS samples are generally large; in our study countries, the number of sampled units ranges from about 8,500 in Luxembourg to about 75,000 in Italy and France[6]. We drew reduced samples for this study because we restrict our study to those aged 25-64, to wage and salary earners, and to those working in nonagricultural occupations and industries.[7]

Eurostat limits the availability of the individual records for these countries to certain qualifying institutions through a cumbersome process. For this analysis we were provided with detailed "cross-classification tables", which report clusters of individuals

[5] All of the European countries in this article are EU members, with the exception of Norway. We omitted four EU countries – Germany, Greece, Portugal, and Spain -- due to unavailable data or problems in comparability with work schedule questions. Note that Norway voluntarily implements EU Directives.

[6] For reasons of confidentiality, Eurostat would not provide the precise unweighted sample sizes for each of these countries after the subsample for analysis was selected.

[7] The restriction of the sample to wage and salary earners is based on our interest in workers who are subject to employer demands and have less control over working at nonstandard times than the self-employed. Also, shift work questions were asked only of wage and salary earners. Restricting the sample to nonagricultural workers excludes those working in agricultural industries or in agricultural occupations.

with identical sets of characteristics, all expressed as categorical data. Weights corresponding to each cluster are provided. The weights capture both the original survey weights (to correct for sampling, non-response, and other types of bias) and weights that account for how many identical observations appear in the raw data. When the weights are applied, the data provide population estimates.

All descriptive results reported in Figures 1-9 in this paper are weighted to provide national estimates. The multivariate analyses, reported in Tables 1-4, were carried out using logistic regressions. The logistic regression models were estimated using these clustered data, unweighted, to allow for the most accurate standard errors possible.

Work Schedule Measures

Throughout this study, we focus on two types of workers – *nonday* workers, who work evenings, nights and/or rotating shifts, and *weekend* workers, who work Saturdays or Sundays or both. We constructed each group using a set of rules established for this study.

Separate questions were asked in the surveys as to whether respondents worked evenings, nights, shifts, Saturdays, and Sundays. For most countries considered, the response categories for these five variables were “usually,” “sometimes,” “never,” and “no answer.” Some countries combined “sometimes” and “never,” so that the remaining distinction was “usually” or “not usually.” For this study, we focus on this usually/not usually dichotomy for all variables, as we are interested in the usual work schedule

behaviors of those employed. (Those with "no answer" were relatively few and treated as missing cases.)

The definitional distinction between evening and night work varies across countries. The variability is within the range of 6PM to midnight for evening work, and within the range of 10PM to 6AM for night work.[8] Because of definitional differences, and our focus on nonstandard hours regardless of whether evening or night, we combine both types of late schedules.

In addition to evening and/or night workers, we include shift workers in our broad category of nonday workers. Shift workers are defined here as those whose work schedules regularly rotate to include at least two different segments of the 24-hour clock, such as from day to evening, day to night, evening to night, or involves all three segments. For three countries, Denmark, the United Kingdom, and Italy, individuals are asked whether or not they work in organizations that have a shift system, regardless of whether the individual works a rotating shift. In these countries we designated a person as working a rotating shift if they answered yes to the organizational question *and* also indicated that they worked either sometimes or usually in the evenings and/or nights. Moreover, we applied the same rule to the other countries where the person was asked about his or own work schedule rather than that of the organization: if they worked a shift *and* worked either sometimes or usually in the evenings and/or nights, they are coded as shift workers. This rule excludes as shift workers those who work two different daytime

[8] Denmark does not specifically identify evening and night work hours in its survey "but if the work period is mostly placed in the evening it is defined as evening work and if it takes place in the typical sleeping hours it is defined as night work" (Lone Solbjerghoj and Lars Peter Smed Christensen, personal communication,12/14/03 and 2/20/06, respectively.

schedules, but never in the evening or night.[9] Such a schedule would apply particularly to part-timers who may vary their daytime hours.

In sum, our definition of nonday work includes those who usually work evenings and/or nights or work a rotating shift that at least sometimes includes evenings or nights.[10] We focus on a single year in this study (2005), forgoing an analysis of trends, a decision necessitated by changes over the years for some countries in the way that nonday employment is measured.

Weekend employment is more precisely measured. It includes those who usually work Saturdays and/or usually work Sundays. For both weekend and nonday employment, we do not know the number of hours worked at these particular times (although we do know the total number of weekly hours worked). As previously noted, a prior paper examined the trend in weekend employment in many European countries for the years 1992-2001, distinguishing Saturday and Sunday. Since the present analysis focuses on the broader issue of nonstandard work schedules in 2005, including nonday employment, we combine both Saturday and Sunday in the analyses.

Prevalence of Nonday and Weekend Employment

In this results section, and the subsequent two sections, we present our cross-national results using a regional breakdown that is widely accepted in the comparative study of welfare states. We use this country typology as a starting point because a large

[9] If such workers usually work evenings or nights, they are included in the "nonday" category.

[10] This definition differs from that used by Presser (2003) in that it is not specifying how much of the total hours worked is at nonstandard times. Whereas the U.S. survey data asked when *most* hours last week were worked, the European LFS data include persons who usually work some but not necessarily most of their hours at nonstandard times.

body of comparative research has established that these groupings are relatively homogeneous, with regard to both social policy provisions and employment outcomes, especially women's employment rates. The Nordic countries, for example, tend to have high rates of female employment, sizeable service economies, and large redistributive welfare policies. The Continental countries typically have lower rates of female employment, smaller service sectors, and less redistributive social policies. The English-speaking countries generally have moderate rates of female employment, and much more market-oriented regulatory and social welfare systems (see, for example, Esping-Anderson 1990; and Gornick and Meyers 2003). We use this typology as a starting point for our empirical, partly to help organize our findings and partly to make it easier to place them in the larger comparative literature.

We begin by reporting the prevalence of nonday employment. **Figure 1** shows the percent of nonagricultural wage and salary earners aged 25-64 who usually work nondays -- that is, evenings or nights, or rotating shifts -- for the twelve countries in our study. We see considerable variation across countries, with the prevalence ranging from as low as 14.5 percent in Luxembourg to twice that level, or 29.4 percent, in the United Kingdom. The results do indicate some homogeneity across these country clusters. This is especially evident for the four Nordic countries, with about one-fourth of the employed working nondays in each of the countries. And there is some degree of homogeneity among the Continental countries as well; the five countries with the *lowest* rates among these twelve are all Continental countries where about one-fifth or fewer employees work nondays.

The Netherlands is a marked exception, as it reports the second highest level overall (27.4 percent).[11]

What about weekend employment? As **Figure 2** shows, there is far more cross-national variation in the percent of employees working Saturday and/or Sunday than for nonday employment, and the country clusters are less cohesive. The percent working weekends ranges from a low of 10.4 in Sweden to a high of 33.8 for Italy.[12] Here, we see that overall the Continental countries are registering the highest levels of weekend employment; the four countries in which weekend employment is most prevalent (the Netherlands, Austria, Italy, and France) are in this cluster.

Although we are combining both Saturday and Sunday for this analysis, for most of these countries, Saturday employment is about twice as prevalent as Sunday employment. Accordingly, it is the high levels of Saturday employment that are generating the high levels of weekend employment in a number of the Continental countries in contrast to the other two regions (results not shown).[13] Whereas Italy has the highest level of Saturday employment, it is relatively low in Sunday employment, yet has the highest level of weekend employment when combining both days; in contrast, for example, the Netherlands has a relatively high level of Sunday employment, but is low

[11] For ease of comparison, we adopt this country ordering in all of the figures. That is, the countries are ordered first by region and, within region, by declining levels of nonday employment.

[12] The low level for Sweden may be a consequence of a new filtering pattern they employed in their survey since 2003 concerning weekend work (as reported by the Swedish delegate**,** Gunborg Johansson, September 6, 2006). This change led to a substantial drop in the percent usually working weekends compared to prior years.

[13] For a 1997 analysis of Saturday and Sunday employment, separately, with a focus on the female share of such employment in these countries, see Presser and Gornick, 2005.

compared to most other countries in Saturday employment, and shows an overall moderate level of weekend employment when combined.

Furthermore, some employees may usually work late or rotating hours *and* weekends. **Figure 3** shows that a substantial minority of employees in these countries have such schedules. The range is from 6.4 percent in Belgium to as high as 16.9 percent in the Netherlands, with considerable variation within as well as across regions.

Clearly, the prevalence of nonstandard-hour work varies across Europe, and within these established welfare state clusters as well. Thus, at least some of the factors that shape those levels -- both micro-level factors and country-level institutional factors – vary at the level of the individual country. We will return to the question of institutional factors later in the paper.

Nonday and Weekend Employment: Does Gender Matter?

As we noted above, all labor markets – including throughout Europe – are gender differentiated. On average, women's engagement in paid work differs from men's in all aspects, including their likelihood of employment, their wages, their occupations, their industries, and their hours worked. Yet, very little is known about gender differences in *when* workers work their contracted hours.

Some factors lead us to suspect that women workers may be over-represented in nonstandard schedules. First of all, across our study countries, women are more likely to be employed in the service sector rather than in the industrial sector, and for most of the countries considered here, employment in the service sector has higher levels of nonday and weekend work (results not shown). It is also possible that, in some cases, these

nonstandard schedules are considered unattractive and thus they may fall to women, as women often lack men's bargaining power in the workplace. On the other hand, women's total hours, on average, are less than men's, perhaps reducing the overflow of their work time into the evening, night, or weekend. Women are also more likely than men to assume childrearing and other family responsibilities that may constrain nonday employment. In addition, cultural factors may depress women's work, especially at night, and, in fact, some of these countries had bans on women's night work as recently as the 1990s. (In 1976, the EU outlawed bans on women's night work, but some countries, including Luxembourg, continued to ban night work for women into the 1990s.) In addition, in cases where nonstandard work times bring extra pay, women may find it harder than men to have access to such schedules. The interplay between gender and work scheduling is exceedingly complex. In the remainder of this section, we approach this from a descriptive perspective, asking: What in fact are the differences in nonstandard work schedules by gender? Do the within-country gender differentials shape up differently between nonday work and weekend work? Is weekend work considered to be more benign for family life -- as shown for the U.S. (Presser 2003) -- and thus are employed women more likely to be "included" in weekend work, relative to their engagement in evening and night schedules?

Nonday Employment: Bivariate Analyses

We begin this gendered analysis with nonday work. **Figure 4** shows that among most of the countries considered in this study, the overwhelming pattern is that men are more likely to work nonday hours than are women. The exceptions are three of the

Nordic countries, Finland (with a small differential), and Norway and Sweden, where women are more likely than men to work nondays.[14] It is interesting that these are countries with large service sectors; they are also countries where public policies have long emphasized gender equality in the labor market, especially in rates of employment.

Among the countries where male employees are more likely than their female counterparts to work nondays, the largest gender gaps are seen in the United Kingdom -- the country with the highest percentage of nonday work overall -- and in Austria. In both countries, the likelihood that employed men work nonday hours is about ten percentage points higher than among women workers. In other countries, employed men are more likely to work nondays than are employed women, with a very small margin for the Netherlands.

E*conomic sector*. What happens when we control for the sector of employment? [15] Results (not reported here) indicate that in all of these countries employed women are more likely than their male counterparts to be employed in the service sector, and that these countries vary in the proportion of their labor force that is engaged in services. By examining the extent to which gender differences persist *within* economic sectors, service or industrial, we can control for such differences. In particular, if we consider only

[14] In Sweden, Finland and Norway, the higher prevalence among women is driven mainly by their greater likelihood (relative to men) of working rotating shifts, rather than evening and nights per se (results not shown).

[15] For our analyses of economic sectors (reported in Figures 6A, 6B, 7A and 7B), we use the LFS variable "industrial sector -- main job". This variable is coded in our dataset as "agriculture", "industry" and "services". The agriculture sector was excluded from the study and, here, we contrast nonstandard-hour work between the other two sectors. To underscore this point, in this analysis we refer to workers in the service sector (i.e., the service industry). While many of these service-sector workers may work in service occupations, an occupational distinction is not what we have captured here.

service employment, do the relatively high levels of women engaged in nonday work in the Nordic countries disappear?

The gender differences in nonday employment for service sector workers are reported in **Figure 5A**. Remarkably, we see the same pattern of gender differences for all countries within this sector as for all workers (compare Figures 5A and Figure 4). The absolute levels are different, as men and women in most of these countries are more likely to work nondays in the service than in the industrial sector. But the relatively high levels of female nonday employment in the Nordic countries hold, as do the gender differences (more nonday work among men) in the other countries. In sum, within the disproportionately female service sector of most countries considered, nonday work is still more "men's work" than it is "women's work".

The results within the industrial sector are somewhat different. Comparing Figure 5A and **Figure 5B, we see that i**n most countries, women employed in the industrial sector are considerably less likely to work nondays than are women working in the service sector, whereas the differences are less marked for men. Figure 5B also shows that, within the industrial sector, in all of our study countries,including the Nordic countries, male employees are more likely to work nonstandard hours than are female employees, and in some countries (including the United Kingdom and Luxembourg) the gender difference is more than twofold. Among industrial workers, nonday work is substantially more prevalent among men.

Full-time workers. As we noted above, women typically work fewer hours than do men in all of these countries. This prompts us to ask: would gender differences in nonday employment be minimized if we consider only those working 30 hours or more

per week?[16] As reported in **Figure 5C**, we found that the direction of the within-country gender differentials evident among all employed workers (as in Figure 4) remain the same for full-time workers. Among the full-time working sub-sample, employed women's likelihood of nonday work remains greater in the three Nordic countries and men's is greater in the other countries. However, the gender differences (regardless of the direction) are, for the most part, substantially smaller among full-time workers.

In sum, gender differences in nonday employment are evident for all countries, with men showing higher levels than women in nine countries, and women showing higher levels than men in three countries (all Nordic). Because women are more likely than men to be in the service sector and less likely to work full-time, we examine within-sector differences and also assess full-time employees separately. We find that the gender pattern in nonday employment for some countries is altered somewhat. In particular, men's dominance in nonday work is universal in the industrial sector, and gender differences in nonday work narrow among full-time workers. This leads us to ask: to what extent do gender differences in nonday employment result from differences not just in these selected job-related factors, but in other work-related factors -- as well as from socio-demographic characteristics? Thus we turn to a multivariate analysis.

Nonday Employment: Multivariate Analyses

When we control for the additional variables, do the gender gaps that we reported earlier persist? In **Table 1**, we report the results of a logistic regression analysis that

[16] Ten of the countries had the option of "hours vary," and the range of responses in this category was from 1 to 6 percent. When we identified workers as full-time for this analysis, we treated those cases as missing.

includes measures of both socio-demographic and employment characteristics.[17] These results are from step-wise models in which nonday employment is first regressed on gender alone; then the socio-demographic characteristics of age, education, marital status, and immigration status are added[18]; and then the employment characteristics of hours worked, multiple job holding, industry, and occupation are added. We estimated country-specific regressions for each of the twelve study countries.

The first model in Table 1 reveals that**,** without additional controls, men are more likely to work nonday shifts than are women in all but three Nordic countries (Sweden, Finland and Norway). This is consistent with the results reported in Figure 4. However, these results indicate that, in both Sweden and Finland, the gender gap (in favor of women doing more nonday work) is not statistically significant. In the other ten countries, the gender differentials are statistically significant -- in favor of women working nondays in Denmark, and in favor of men in the other countries.

The second model, which adds socio-demographic controls, shows similar results as when controlling only for gender, except that in Finland the positive relationship (women more nonday than men) becomes statistically significant. The overall finding (except in Finland) suggests that gender differences in nonday employment (in either

[17] Tables 1-4 report unexponentiated betas, meaning that they indicate the effect (negative or positive) of being female on the log of the odds of being employed nondays (or weekends). A negative coefficient indicates that women are less likely to work these nonstandard hours; a positive coefficient means that women are more likely to work these hours.

[18] We also examined a model that considered the socio-economic characteristics listed absent marital status and then a model that added marital status, to see if marital status would substantially affect the gender coefficients. This was not the case for any of the countries in the analysis.

direction) are not explained by differences between women and men in the socio-demographic characteristics as measured here.

The third model adds employment characteristics. First, we see that adding employment characteristics shifts the earlier results in some of the Nordic countries. In Finland and Norway, there is now no statistically significant difference between women and men in engagement in nonday employment; that is, female and male workers are equally likely to work nondays. However, in Sweden, being female is now negatively associated with nonday work, although the differential is small in cross-national terms. The other eight countries still show a statistically significant negative relationship between being female and nonday employment, although the effects of being female are generally reduced (with the Netherlands the one exception). That means that, in these countries, women's relative exclusion from nonday employment is lessened once we control for job characteristics.

Although this analysis suggests that gender differences in employment reduce but do not substantially remove the male dominance in nonday employment, it may be that more refined measures of the same variables would have larger effects. For example, these data from Eurostat available allow only eight broad occupational groupings (excluding agriculture for this analysis) and only two broad economic sectors (industrial and service, again excluding agriculture). Controlling for broader rather than more detailed job-related characteristics tends to lessen gender differences.

Weekend Employment: Bivariate Analyses

What about weekend employment? As noted earlier, we regard weekend employment as more benign than nonday employment with regard to personal and family life in that it conforms to a traditional diurnal lifestyle and need not alter one's circadian rhythms, unless weekend workers also work late hours. Such considerations may serve to minimize gender differences in weekend work in the countries under study. However, gender differences in family pressures and assumed responsibilities may constrain the willingness of women more so than men to work weekends.

The results reported in **Figure 6** clearly indicate that men's dominance in nonday employment does not carry over to weekend work. In all countries except for the United Kingdom and Ireland, employed women are *more* likely to work weekends than are employed men. Among the countries where employed women are more likely to work weekends than are their male counterparts, the largest difference is in France (30.6 percent for women and 22.9 percent for men); the smallest gap is in Luxembourg (17.8 and 16.9, respectively). Comparing Figure 6 with Figure 4, we see that gender differentials in nonday employment for the countries under study are not highly associated with gender differences in weekend employment. This finding points to the need to keep these two temporal aspects of work -- nonday and weekend employment -- separate when studying the gendered nature of nonstandard work schedules.

Economic sector. Does the pattern of gender difference in weekend employment (where women are more likely than men to work weekends) persist *within* economic sectors? The answer is: partially, in the service sector, and no within the industrial sector. **Figure 7A** shows that, within the service sector, employed men are still more likely than

working women to work weekends in the two English-speaking countries. However, the gender gaps in three more countries -- Austria, Italy, and the Netherlands -- reverse directions such that men are now more likely to work weekends, and other within-country differentials are narrowed. Clearly, some of women's over-representation in weekend work is due to their high levels of engagement in the service sector.

Comparing **Figure 7B** to Figure 7A, it is evident that weekend employment is more common in the service sector than in the industrial sector in all of our study countries. And in almost all of these countries, within the industrial sector, *men* are more likely to work weekends than are women -- with Italy showing a very marked difference (20.4 percent of men and 10.0 percent of women working weekends). France is an exception to the pattern of higher levels among men, having about equal percentages for both genders. In sum, women's over-representation in weekend employment, overall, disappears within the industrial sector.

Full-time workers. As we have noted, women typically work fewer hours than do men in all of these countries. This leads us to ask if gender gaps in weekend work shape up differently when we consider only those working full-time. As shown in **Figure 7C**, among full-time employees (working 30 hours or more per week), the gender pattern is similar to that noted for the total: in most of these countries, women are more likely than men to work weekends**.**

In sum, gender differences in weekend employment are evident for all countries, with women showing higher levels than men in ten countries, that is, everywhere except in the two English-speaking countries. There are some variations in this overarching pattern in some countries when we break workers out by economic sector and/or by hours

worked. We next address whether the gender gaps that we observed in weekend employment persist after controlling for these and other employment variables as well as socio-demographic differences between employed men and women.

Weekend Employment: Multivariate Analyses

Table 2 reports the logistic regression results for weekend employment, with control variables identical to Table 1. Model 1 reports the relationship between being female and weekend work, with the direction of this relationship consistent with the findings reported in Figure 6. Again, employed men are more likely to work weekends than are employed women in the two English-speaking countries, whereas employed women are more likely to work weekends everywhere else (although the gender differences are not significant in Norway, Luxembourg, and Italy). Controlling for the socio-demographic variables (Model 2) does not alter the nature of the relationship in any of these countries (except that the significance disappears in Ireland).

However, as reported in Model 3, controlling for job-related factors has a substantial effect on the gender-gap results. In five of the seven countries that showed an unadjusted positive relationship (weekend employment more prevalent among employed women than among employed men), this changes to a negative relationship (men higher) after the employment variables are added as controls. This is the case for Sweden, Finland, Denmark, Netherlands, and Belgium; in all of these, after the employment controls, male employees are significantly more likely to work weekends. Two countries (France and Austria) shift from showing significantly higher levels of female than male weekend employment to virtually no gender difference. And in two countries (Norway

and Italy), the absence of a gender difference changes to a greater likelihood of weekend work among men. In all of these countries, we can conclude that it is gender differences in hours worked, multiple job holding, industry, and/or occupation that account for women's higher (unadjusted) levels of weekend employment, or for the lack of difference between women and men. All else equal -- to the extent that we can hold all else equal -- women's greater engagement in weekend work disappears nearly everywhere once we account for these job-related factors. The one exception is in Luxembourg, where being female has a significantly positive effect on the odds of working weekends.

Nonday and Weekend Employment: Does Having Children Mattter?

Clearly, employed women and men report different likelihoods of working nonstandard work schedules. To some extent, gender differences in job characteristics explain some portion of the observed gender gaps in engagement in nonstandard work schedules. With regard to weekend employment, gender gaps in job-related factors often reverse the effects of gender altogether.

In this section, we turn to the question how the presence of children is correlated with work timing. As previously noted, research focused on the United States finds that several child-related factors come into play when we consider workers' engagement in atypical schedules. Many parents may be choosing these schedules for reasons related to child care. Nonstandard work schedules may allow two-earner couples as well as parents and grandparents or other relatives or friends to work different hours and do tag-team parenting at little or no financial cost. On the other hand, the lack of formal child care at nonstandard times makes nonday and weekend employment difficult for parents,

especially if they are not married. Child care unavailability (preschool or after-school) may constrain women's employment at nonstandard hours, because it is women more than men who, when they are employed, are deemed responsible for arranging for the care of children. In our final empirical analysis of work schedule behavior, we assess the effects of parental status on the likelihood of working nonstandard hours.

Because, in the Eurostat files provided, only seven of these twelve countries include data on the presence of children, we present a separate set of tabulations and regressions for both nonday and weekend work for these countries. Also, we restrict the analysis to employees aged 25 to 44, because this is the age group most relevant for families with children under age 15.[19]

Nonday employment

In five of these seven countries – Belgium and France excluded -- employed women with children are *less* likely to work at non-daytime hours than are their counterparts with children; see **Figure 8A**. This is the case for the U.K., the Netherlands, Austria, Italy, and Luxembourg. The differences, however, are remarkably small, ranging from 1.0 percentage point (Luxembourg) to 3.5 percentage points (U.K.). Belgium is the sole country of those considered where mothers are more likely to work at nonstandard hours than non-mothers (a difference of 2.3 percentage points), and there is virtually no difference by maternal status in France.

[19] Furthermore, in these data, if adults report that they have no children at home it is not possible to distinguish those who never had children from those whose children have grown up and left home. When we limit our sample to adults under age 45, we dramatically increase the likelihood that the childless adults in the sample have never had children. In other words, we can make a more accurate cut between parents and non-parents.

The results are quite different, and much more homogeneous, for men. As **Figure 8B** reports**,** among employed men, fathers are *more* likely to work nondays than are men without children -- in all seven countries. Again, the differences by parental status are not large, ranging from 3.2 percentage points (Italy) to less than one percentage point (Luxembourg).

In **Table 3,** we report the results of a multivariate analysis. Here, we estimate the effects of parental status on the odds of nonday employment. Because the bivariate results showed clear differences between men and women, we estimated the multivariate results separately by gender. Using the same logic as the models reported in Tables 1 and 2, we first included parental status only; in Model 2 we added socio-demographic characteristics and, in Model 3, we added job-related factors.

The multivariate results indicate that, remarkably, there are virtually no parental status effects at all in the likelihood of working nondays, either with or without controls. Among women, the differential (less nonday work among parents) is statistically significant only in Italy, and once controls are added, both socio-demographic and job-related, there are no evident parental effects at all. Among working men, we see virtually no effects of the presence of children. The one exception is in the U.K. where, with all of the controls in place, fathers are somewhat more likely than non-fathers to work nonday schedules. Otherwise, the parent-nonparent differences seen in Figure 8B do not hold up in the multivariate context.

Weekend employment

As indicated in **Figure 9A,** among women workers, there is little systematic relationship between weekend employment and parental status. In four countries, mothers are *less* likely to work weekends than are employed non-mothers, while in three countries the reverse is true -- although in several cases the differences are small.

Likewise, among employed men, there is considerable variability across countries in the relationship between parental status and weekend employment; see **Figure 9B**. Again, in more of these cases than not, fathers are less likely to work weekends than are employed men without children, but again the differences are clearly fairly small.

In **Table 4**, we present a multivariate analysis -- regressing weekend employment on parental status -- again, with socio-demographic controls added in Model 2 and job-related factors included in Model 3. As with the nonday results presented in Table 3, the multivariate results indicate that, surprisingly, there are virtually no parental status effects at all in the likelihood of working weekends, either with or without controls. Among women, with all of the controls in place, the differential is significant only in France (where mothers are *more* likely to work weekends) and in Italy (where mothers are *less* likely to work weekends). Among men there are no statistically significant effects of parenthood in any of these countries.

The absence of parenting effects, vis-à-vis both nonday and weekend employment, suggests that, in these European countries, as in the United States, workers generally sort -- or are sorted -- into standard versus non-standard schedules, more as a result of demand-side factors (i.e., job availability and remuneration) and less as a result of factors related to family composition.

Policies Implications

Our results clearly indicate that, across these twelve European countries, there is a substantial amount of work usually being performed at nonstandard hours. In all twelve of our study countries, 15 percent or more of all employees (age 25-64) *usually* work nonday hours; in five of these countries, at least one employee in four usually works nondays. The prevalence of weekend work -- while more varied -- is also substantial. In all twelve countries, ten percent or more of all employees (age 25-64) *usually* work weekends; in seven of these countries, between about one fifth and one third usually work either Saturdays or Sundays or both.

These findings raise interesting questions about the role that public policy plays in shaping nonstandard-hour work in Europe. As we noted earlier, throughout Europe -- especially in the northern and western countries -- most employees are subject to EU-required protections that limit their weekly work hours, grant them a minimum number of paid days off per year, and protect them from disproportionate losses in compensation due to working part-time. At the same time, however, the EU has been largely silent on regulations related to *when* hours are worked. There are some exceptions to this. The 1993 Working Time Directive requires that every worker be entitled to a minimum daily rest period of eleven consecutive hours per 24-hour period, and that within each seven-day period, every worker is entitled to a minimum uninterrupted rest period of 24 hours (plus the eleven hours daily rest). However, the EU does not directly set retail hours, nor does it specify times of day when employment is allowable, nor does it specify pay premiums for nonstandard-hour work. Given the absence of supranational policy, it is

perhaps not surprising that nonstandard hours are relatively prevalent in a number of European countries.

Furthermore, in recent years, the European-wide activity -- at the supranational and national levels – aimed at shortening total work hours may have had the paradoxical effect of raising the prevalence of nonstandard-hour work in a number of countries. Even though we do not report trends in this paper, it is worth noting that recent policy activity related to working time may have already raised the prevalence of nonday and weekend work in Europe -- and may continue to do so in the future.

How is this unfolding? In the last two decades, while several European countries have implemented reductions in total work hours, a number of these countries have ushered in new practices that increase employers' options to schedule workers "flexibly" -- which, in practice, often means working during nonstandard hours. These new practices are on the rise largely because an increasing number of European employers are operating under various "annualized hours" schemes. Annualization schemes allow employers to average workers' hours over periods of time ("reference periods") of longer than a week -- and, in some cases, up to a year (hence the terminology). Annualization schemes, of course, enable employers to fit workers' schedules to production or commercial needs, and the result is that more workers can be scheduled at nonstandard times -- evenings, nights, and weekends -- and/or assigned hours that rise and fall weekly, monthly, or seasonally.[20]

In most countries, annualization schemes are mainly designed at the bargaining table and they vary widely across and within countries. Although these arrangements are

[20] Annualization schemes also allow employers to pay less overtime, as overtime thresholds may be set not weekly but for the reference period as a whole.

usually favored by employers, employees' representatives typically agree to them, or even initiate them, in exchange for some compensatory benefit, most often, a reduction in total work hours (Kouzis and Kretsos 2003). Thus, in practice if not in principle, legions of European workers may have gained shorter hours at the cost of more nonstandard work scheduling and, in many cases, reduced control and predictability.

Where consumers' or employers' demand for "24/7" operation is especially strong, it may be impossible to control the growth of nonstandard-hour work in Europe -- in which case, other policy responses may be needed to help workers cope. For example, although controversial on a number of grounds, primarily concerns about child well-being, it may become increasingly necessary to provide round-the-clock child care options for parents whose work hours fall outside normal schedules.

In subsequent work, we plan to assess variation across these twelve countries in national-level measures that set retail hours; place limits on evening, night and weekend shifts; and require pay premiums for working nonstandard hours. We hope to identify policy variation operating at the country level that might help to explain some of our more salient findings – including, for example, the relatively high levels of nonday work in the United Kingdom and the Netherlands, compared to most of the Continental countries, and the especially high levels of weekend employment in three Continental countries (Austria, Italy, and France) compared to the much lower level reported in Sweden. This is a challenging task because, as we have learned, there is very little high-quality, cross-nationally comparable information on these policies and practices.

Discussion and Conclusions

Given that substantial minorities of the workforce in the twelve European countries work at nonstandard times, and that there are potential negative as well as positive consequences of such employment for these workers and their families, more research attention paid to this issue is clearly needed. It is especially important that we better understand the underlying dynamics at the micro level that lead people to work at nonstandard times and the reasons for country variations at the macro level.

The European Labour Force Surveys offer a start, in that they enable us to describe some basic parameters and assess the extent of gender differences. However, this multi-country data source has methodological limitations because the collection of data on which hours people work is not fully standardized. Accordingly, we have had to make compromises for country comparisons in 2005; e.g., we have had to pool evening, and night and shift work into one nonday category in order to maximize comparability, when each type of work schedule is of interest and has different consequences (Presser 2003). Further, because the data on nonday employment are not comparable over time for many of the countries, we could not assess trends in this regard at a time when, as we have noted, “flexibilization” of work time is becoming a major issue in many European countries.

Explaining the variability we have documented in the level of nonstandard work schedules among the twelve European countries in 2005 also has its limitations. The regional distinction shows some homogeneity across the country clusters for nonday employment, especially for the four Nordic countries; however, regional homogeneity is not as evident for weekend employment. It is important to note that among those who

report that they usually work evenings, nights, or weekends, we do not have data on the number of hours so employed -- only the total weekly hours worked, which may include daytime hours. Not only may countries vary in this regard, but so might the consequences for workers and their families.

As we noted earlier, future work is planned in developing matrices that detail the prevailing country-specific policies concerning nonstandard schedules (beyond shop-opening hours and days) and assessing their relevance to our empirical findings. We have started this process, and preliminary findings suggest that policy differences, while relevant, are not highly correlated with observed country variation in nonday and weekend employment. This suggests that cross-national variation in consumer and employer demand factors (that are not correlated with public policies) may be the major explanation for the variation in prevalence. Nevertheless, policies are highly relevant in assessing the differential country costs and benefits to workers of employment at nonstandard times.

Our analysis of gender differences in nonstandard work schedules within countries essentially holds constant the policy context. We have asked the question: within countries, does gender matter, and the answer is yes. Like other aspects of the labor force, nonstandard work schedules are clearly gendered. Except for three Nordic countries, men are more likely than women to usually work nonday hours -- and two of the exceptions are not statistically significant when adjusting for differences in socio-demographic and employment characteristics. Even *within* the service sector, which disproportionately includes women and where employment at nonstandard times is

relatively high, this pattern of male dominance holds. It also obtains when considering only those employed full time.

Is the lower likelihood of women than men working nondays good or bad for women? As we noted in the introduction, one can hypothetically answer either way. It is of considerable importance that we do further research that tests the alternative hypotheses, given concerns about gender inequality and family outcomes.

We have seen that male dominance in nonday employment does not carry over to weekend work. In all but the two English-speaking countries, the United Kingdom and Ireland, employed women are more likely to work weekends than are employed men. There are more exceptions when looking *within* the service sectors of countries; three Continental countries join the English-speaking countries with higher male than female employment on weekends. Moreover, male dominance in weekend work is evident for almost all countries *within* the industrial sector, the exception being France with equal percentages for both genders. As wth nonday employment, the gender pattern in weekend employment is similar when considering only those who work full time. A multivariate analysis reveals that for most of the countries in which women are more likely than men to work weekends, controlling for employment variables reverses this pattern; men are significantly more likely than women to work weekends after adjusting for gender differences in hours worked, multiple jobs, industry and occupation. Thus, gender differences in job-related factors appear to explain the higher levels of women in weekend employment in these countries.

Again, the issue of whether this is advantageous or disadvantageous for women needs to be addressed with further research. We have suggested that weekend work may

be more benign than nonday employment for both men and women, but this may be conditional on what share of total work hours is actually spent in the evening or night versus weekends -- which, as indicated, these surveys do not measure.

Finally, we raised the question of whether having children matters. The answer is generally no, but there are some differences by type of nonstandard work. With regard to motherhood and nonday employment, for six of the seven countries for which data on children were available, differences by parental status were very small or nonexistent. Men showed slightly larger differentials by parental status, with lower rates of nonday employment for fathers relative to non-fathers in all seven countries. The multivariate analyses confirmed that the independent effects of parental status are very small for both genders. With regard to the relationship between parental status and weekend employment, there is more variation by country than for nonday employment, for both men and women. However, the regression analyses showed no significant difference by parental status for men, and significant differences (in opposite directions) for only two countries for women (France and Italy). Generally, then, one can conclude that parental status makes little difference for either men or women, pointing again to the potentially strong effects of job-related characteristics on determining who works at nonstandard times.

With the changes in working time that Europe is currently experiencing, can we afford to ignore a key dimension of this time -- employment at nonstandard hours and weekends -- and its gender ramifications? We argue no -- and call for more refined data collection and analysis and for systematic efforts aimed at keeping track of relevant country-specific policies.

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Figure 1.
Prevalence of Nonday Work
Percent of nonagricultural wage and salary earrners aged 25-64
who usually work nondays (evenings, nights, or rotating shifts):
12 European countries, 2005

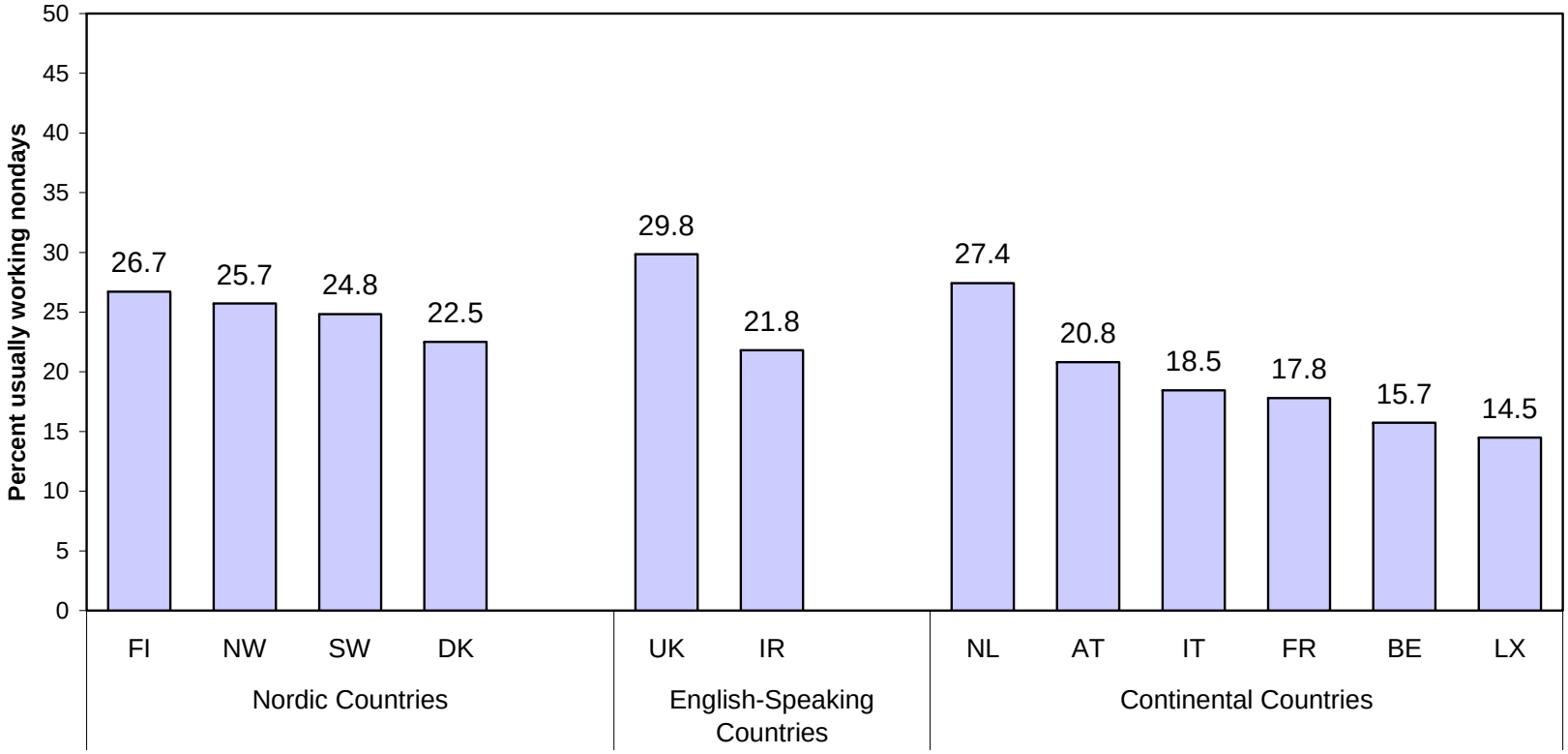

Figure 2.
Prevalence of Weekend Work
Percent of nonagricultural wage and salary earrners aged 25-64
who usually work weekends (Saturday and/or Sunday):
12 European countries, 2005

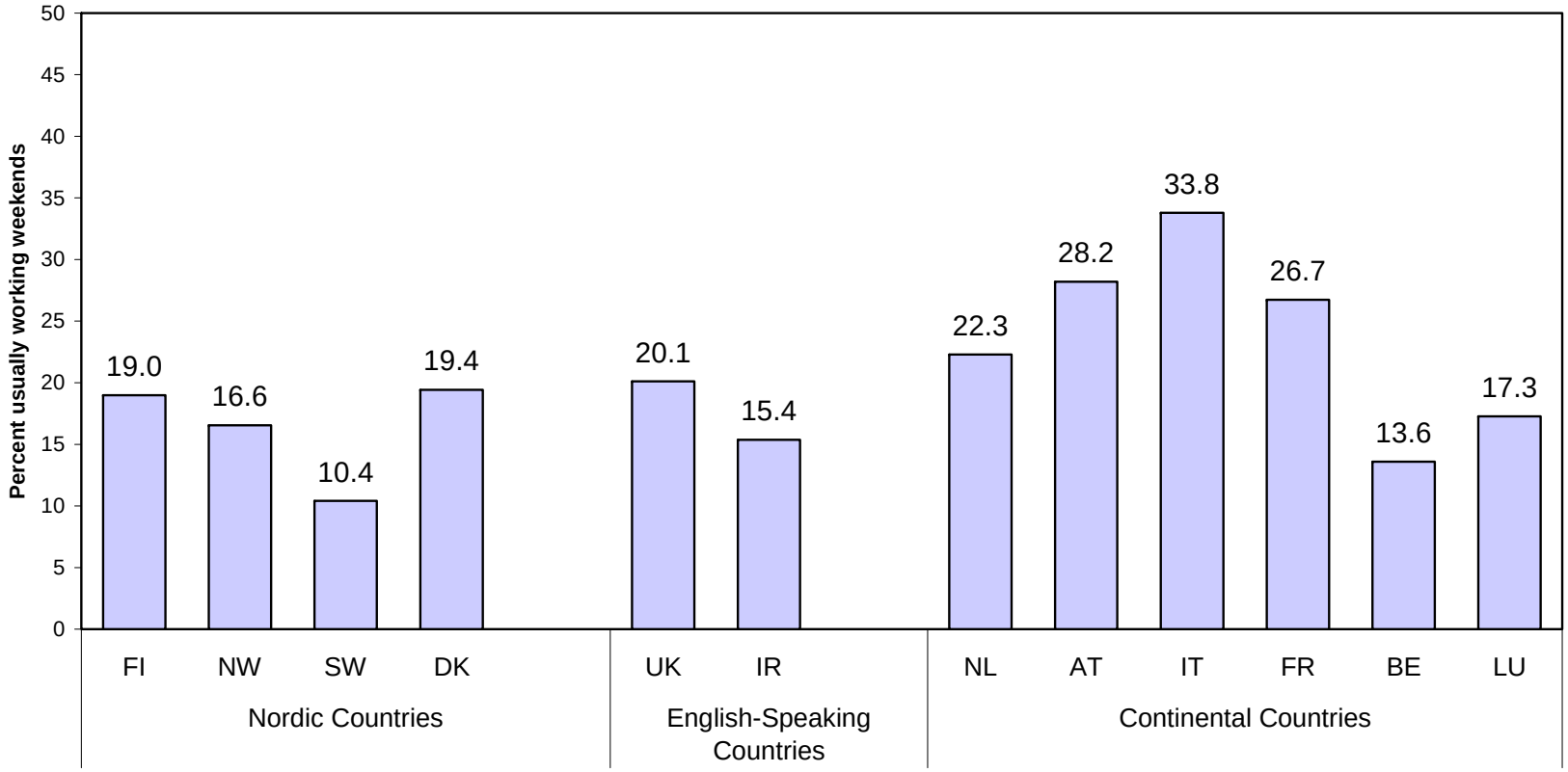

Figure 3.
Prevalence of Nonday and Weekend Work
Percent of nonagricultural wage and salary earrners aged 25-64
who usually work nondays (evenings, nights, or rotating shifts) AND weekends (Saturday and/or Sunday):
12 European countries, 2005

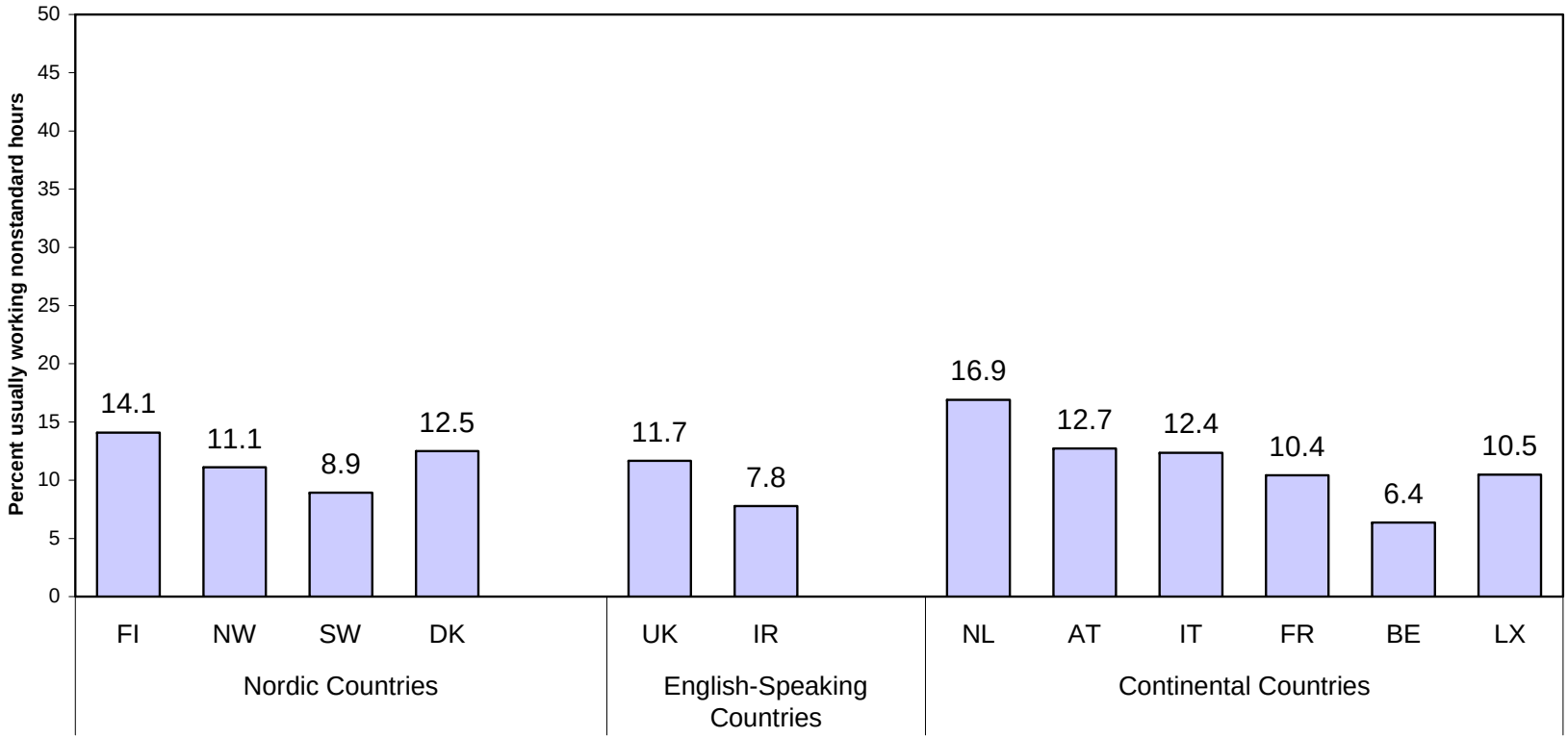

Figure 4.
Nonday Work by Gender
Percent of nonagricultural wage and salary earners aged 25-64
who usually work nondays (evenings, nights, or rotating shifts):
12 European countries, 2005

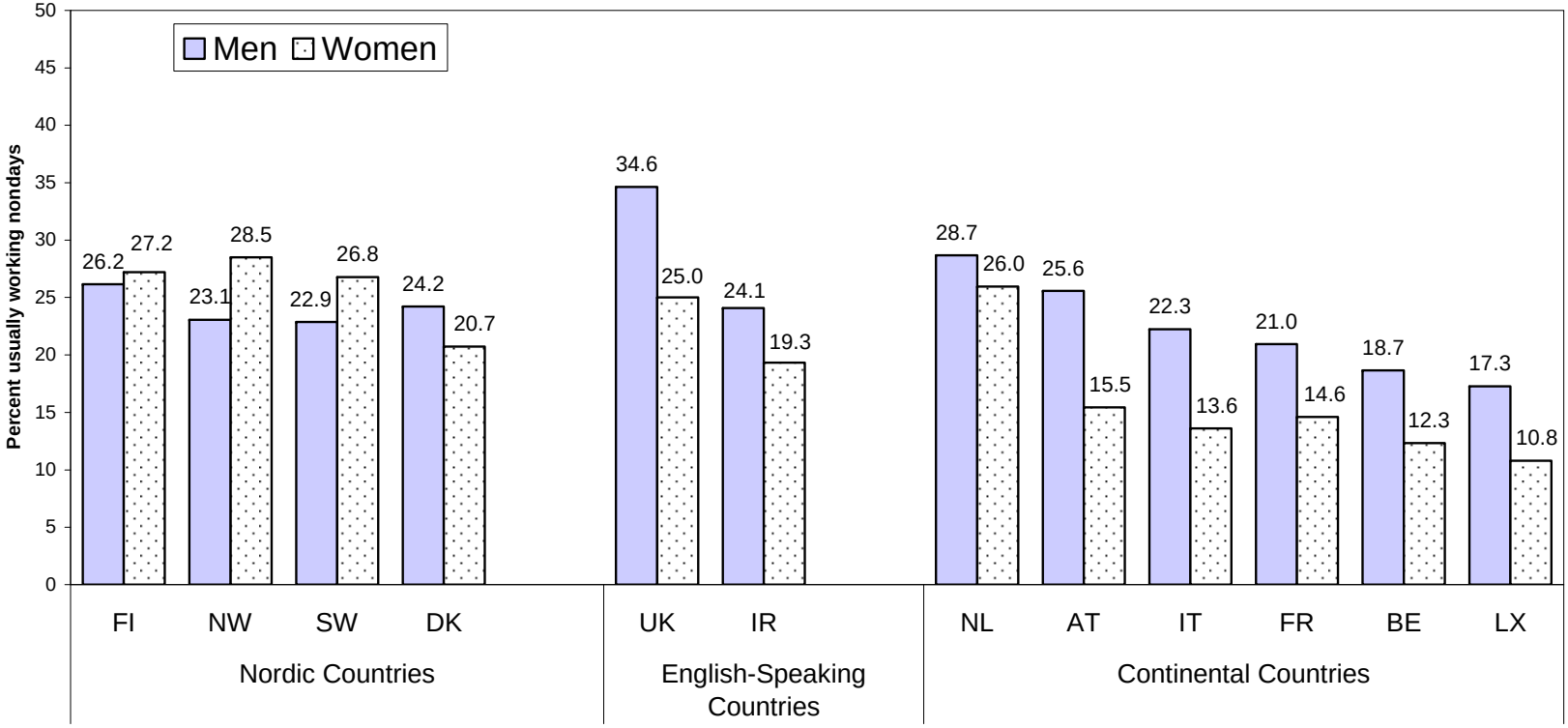

Figure 5A.
Nonday Work by Gender -- Service Sector
Percent of nonagricultural service wage and salary earners aged 25-64
who work usually work nondays:
12 European countries, 2005

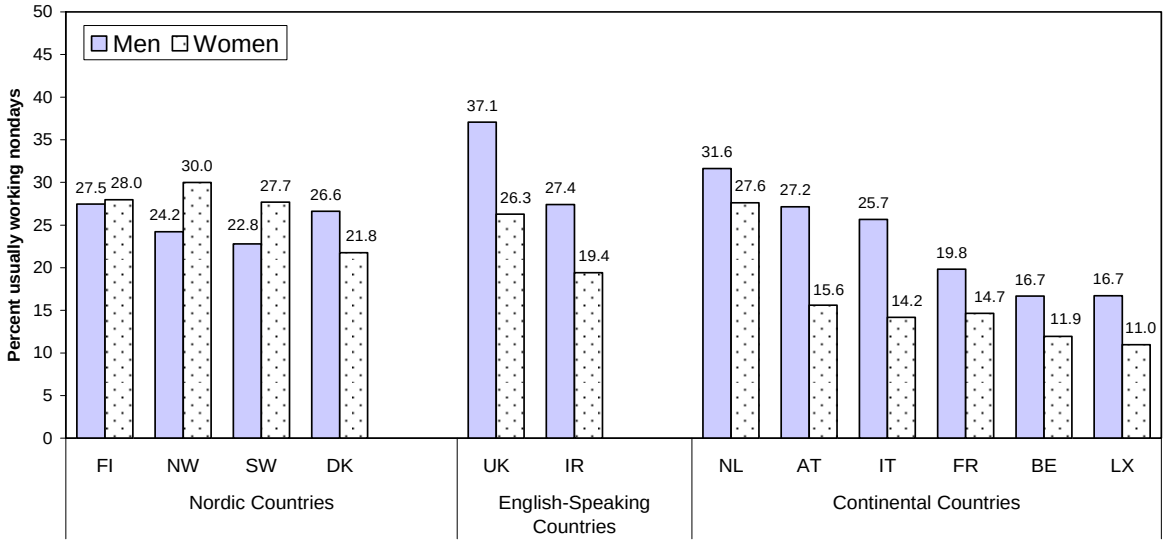

Figure 5B.
Nonday Work by Gender -- Industrial Sector
Percent of nonagricultural industrial wage and salary earners aged 25-64
who usually work nondays:
12 European countries, 2005

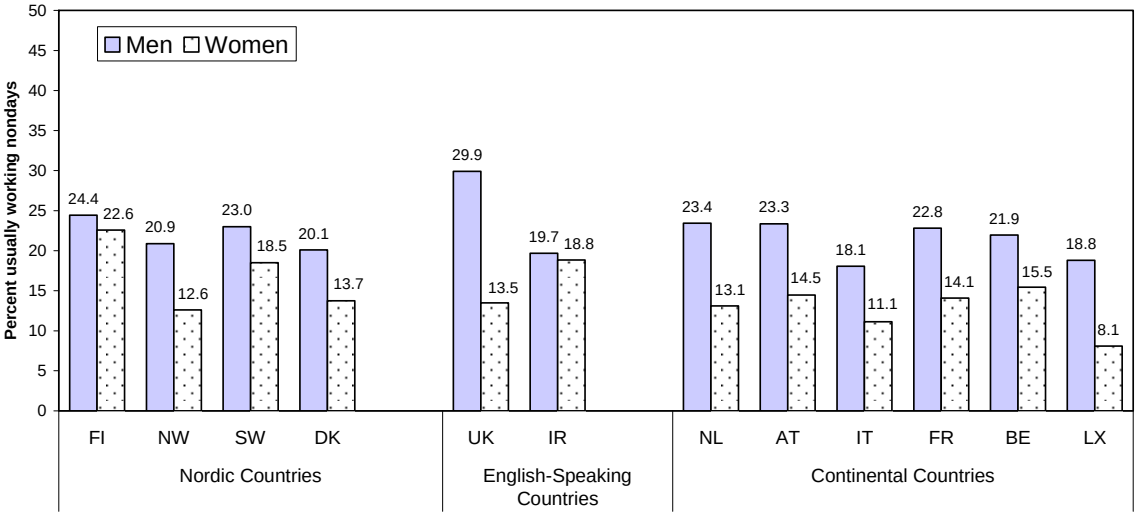

Figure 5C.
Nonday Work by Gender -- Full-Time Workers Only
Percent of nonagricultural wage and salary earners aged 25-64
who usually work nondays:
12 European countries, 2005

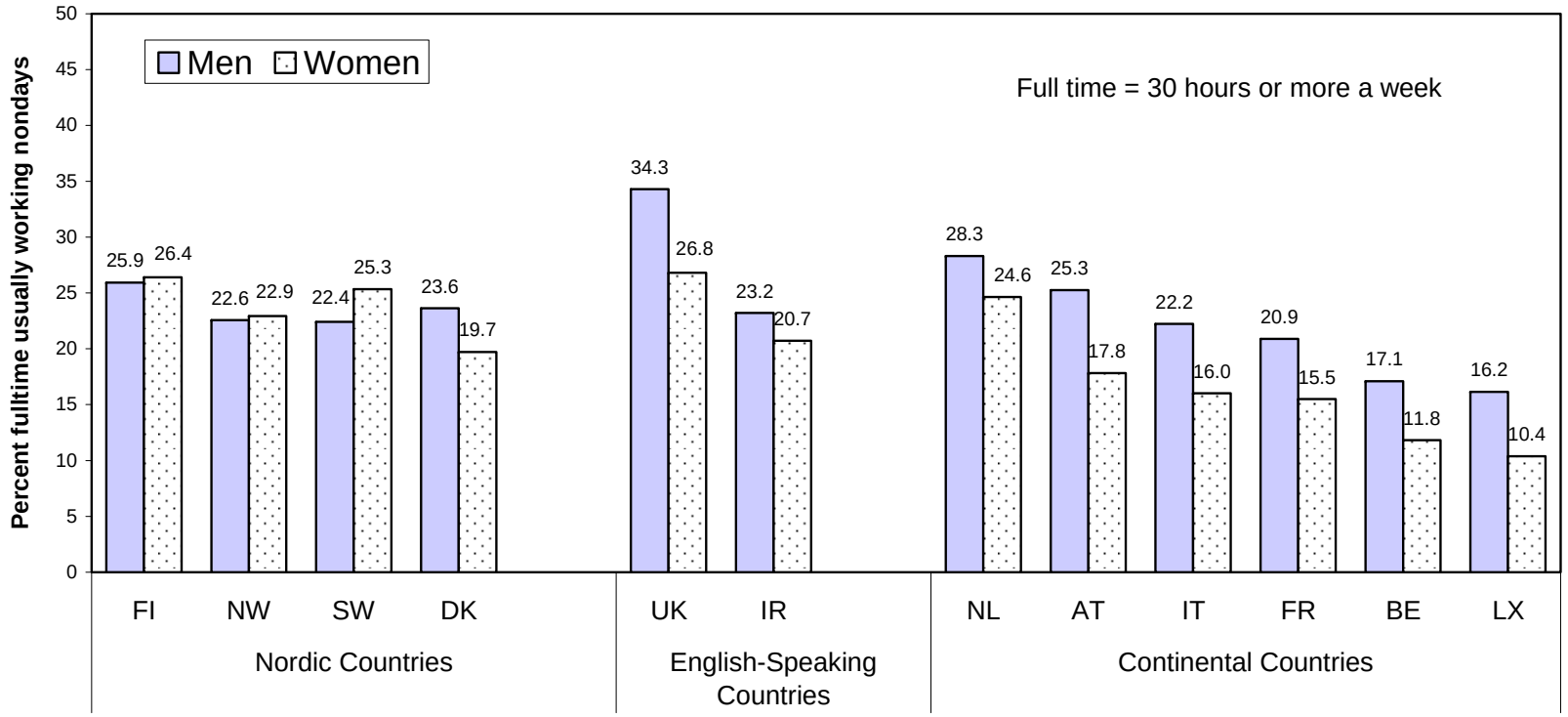

Figure 6.
Weekend Work by Gender
Percent of nonagricultural wage and salary earners aged 25-64
who usually work weekends (Saturday and/or Sunday):
12 European countries, 2005.

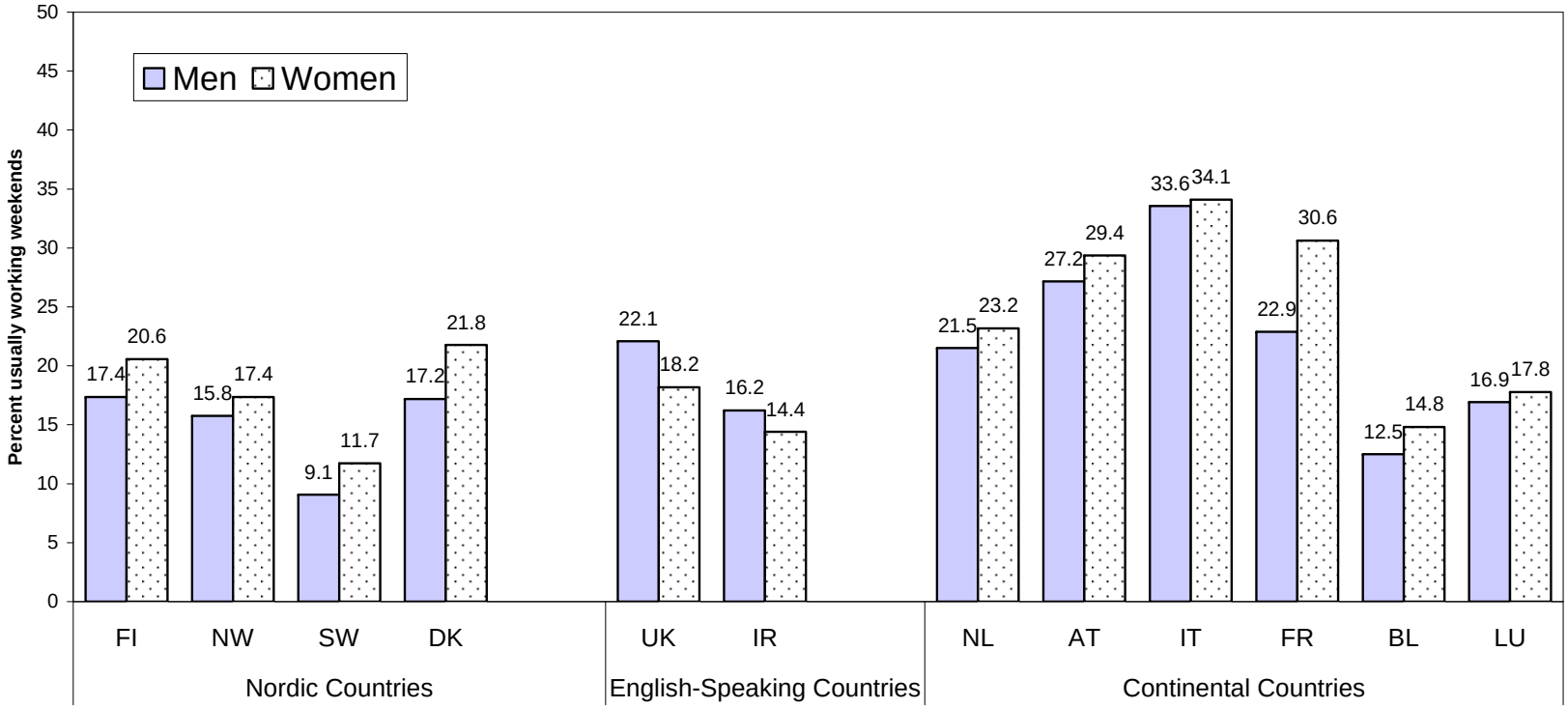

Figure 7A.
Weekend Work by Gender -- Service Sector
Percent of nonagricultural service wage and salary earners aged 25-64
who usually work weekends (Saturday and/or Sunday), total:
12 European countries, 2005

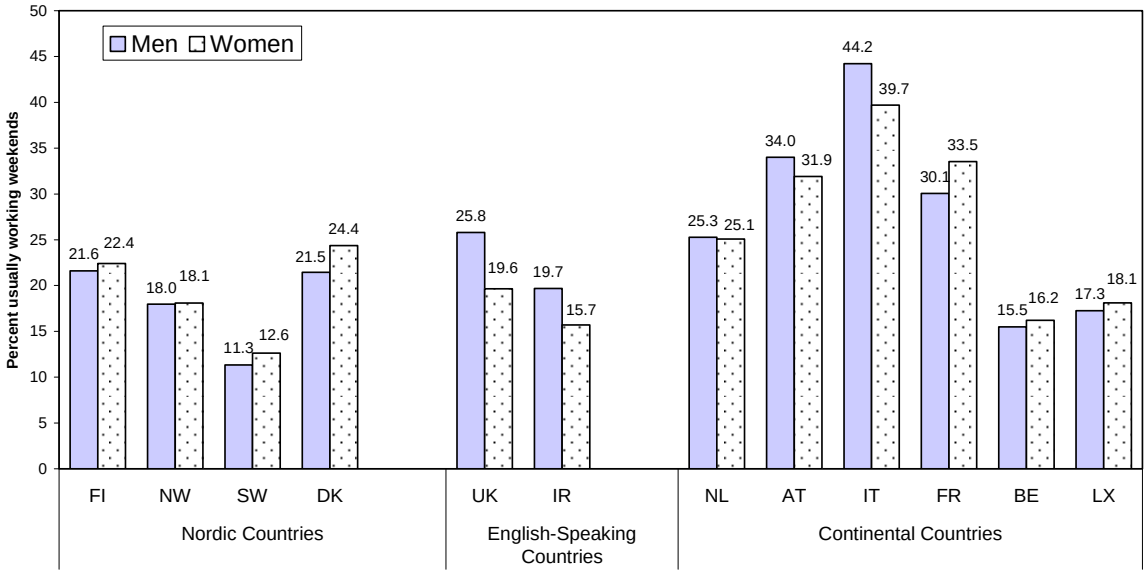

Figure 7B.
Weekend Work by Gender -- Industrial Sector
Percent of nonagricultural industrial wage and salary earners aged 25-64
who usually work weekends (Saturday and/or Sunday):
12 European countries, 2005

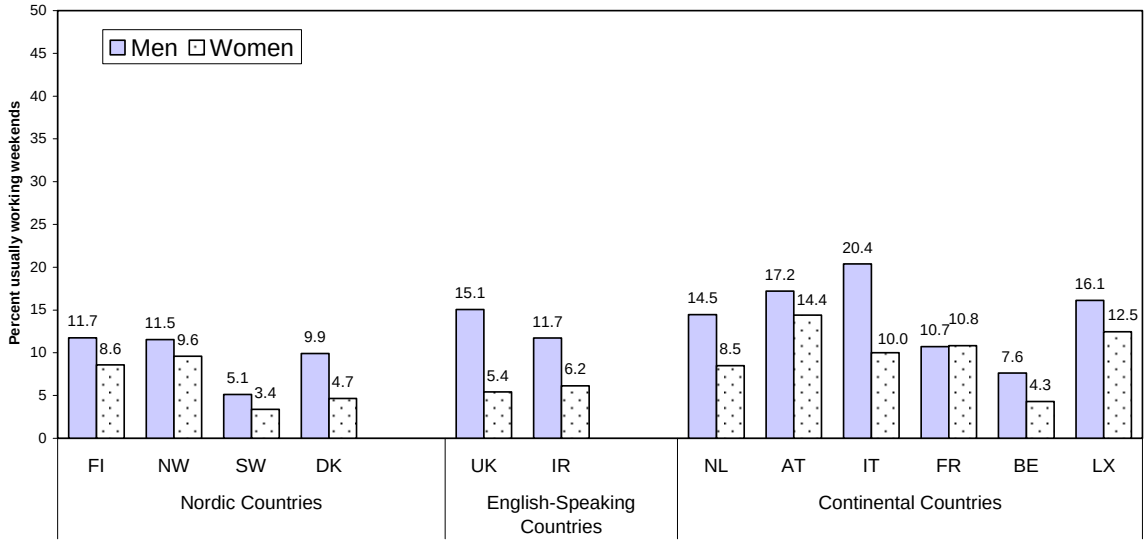

Figure 7C.
Weekend Work by Gender -- Full-Time Workers Only
Percent of nonagricultural wage and salary earners aged 25-64
who usually work nondays:
12 European countries, 2005.

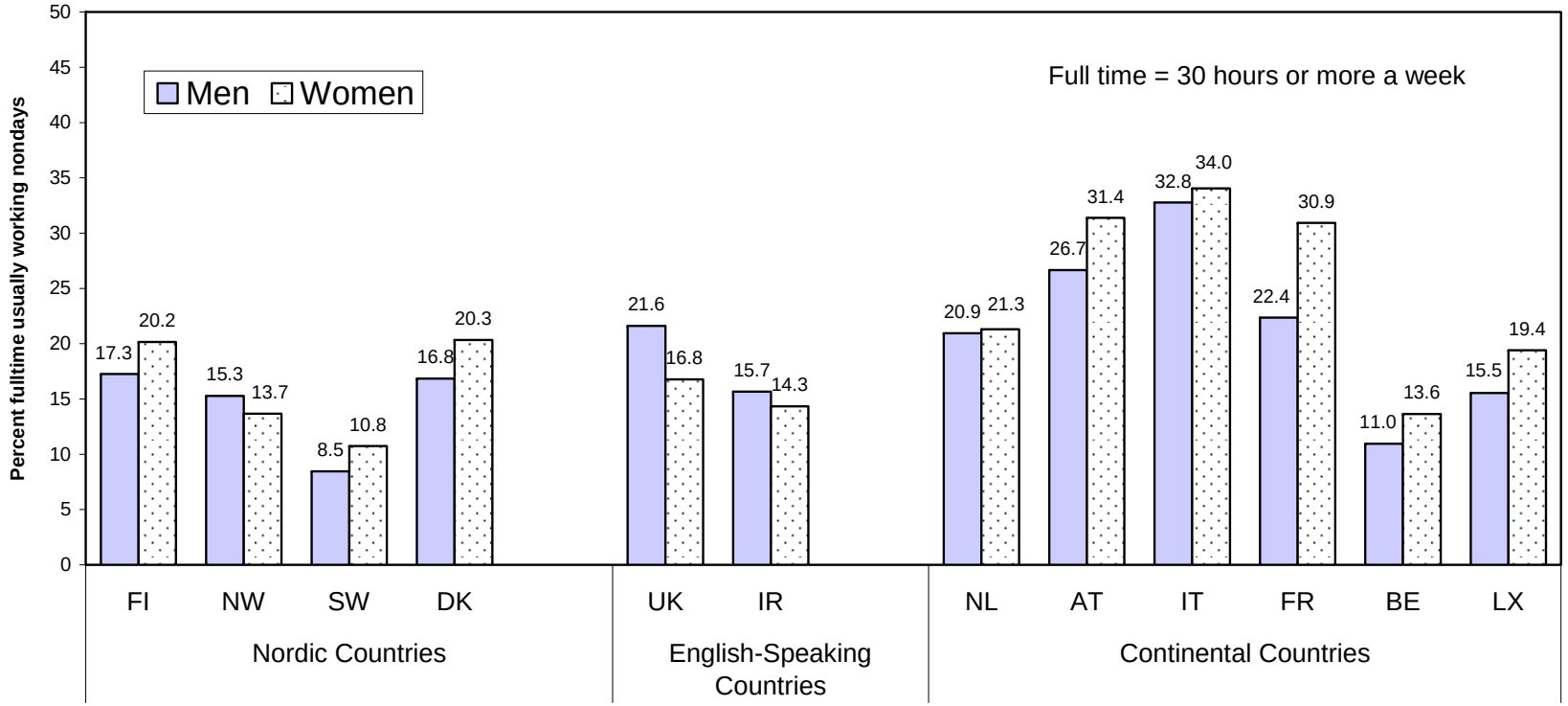

Figure 8A.
Nonday Work by Parental Status -- Women
Percent who usually work nondays
by parental status
among nonagricultural female wage and salary earners aged 25-44:
7 European countries, 2005.

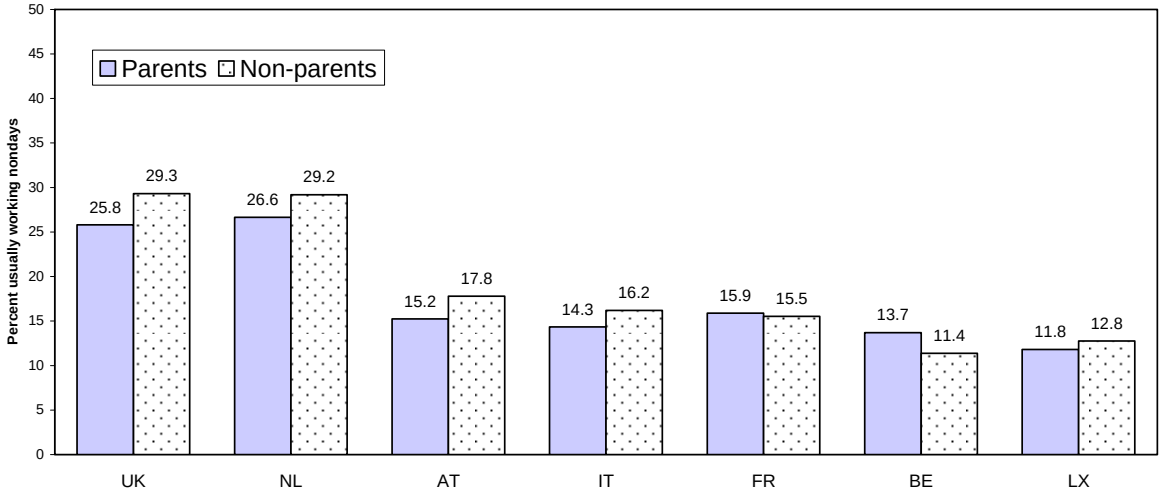

Figure 8B.
Nonday Work by Parental Status -- Men
Percent who usually work nondays
by parental status
among nonagricultural male wage and salary earners aged 25-44:
7 European countries, 2005.

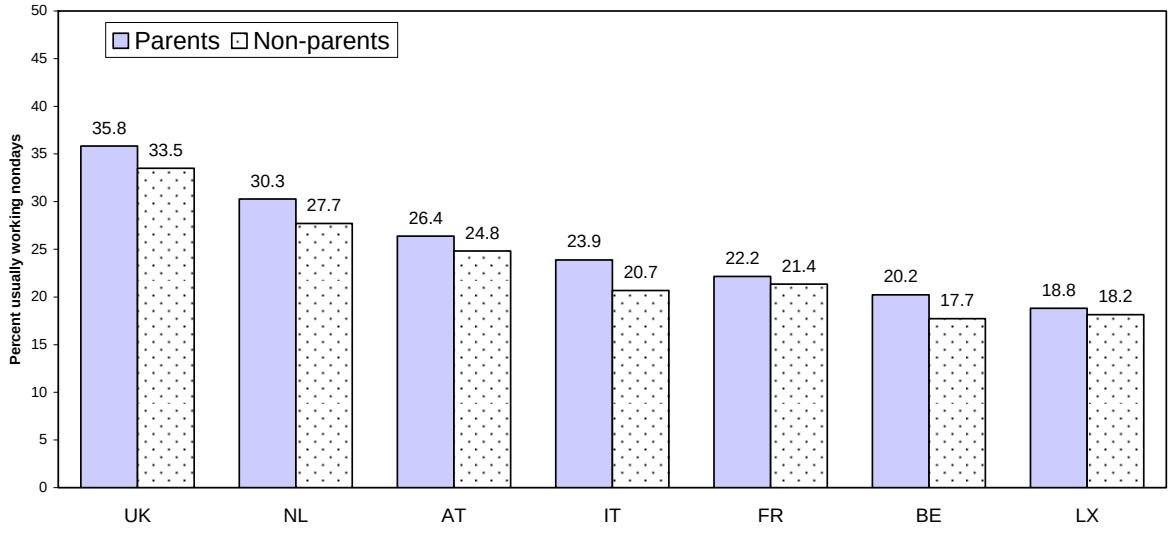

Figure 9A.
Weekend Work by Parental Status -- Women
Percent who usually work weekends (Saturday and/or Sunday)
by parental status
among nonagricultural female wage and salary earners aged 25-44:
7 European countries, 2005.

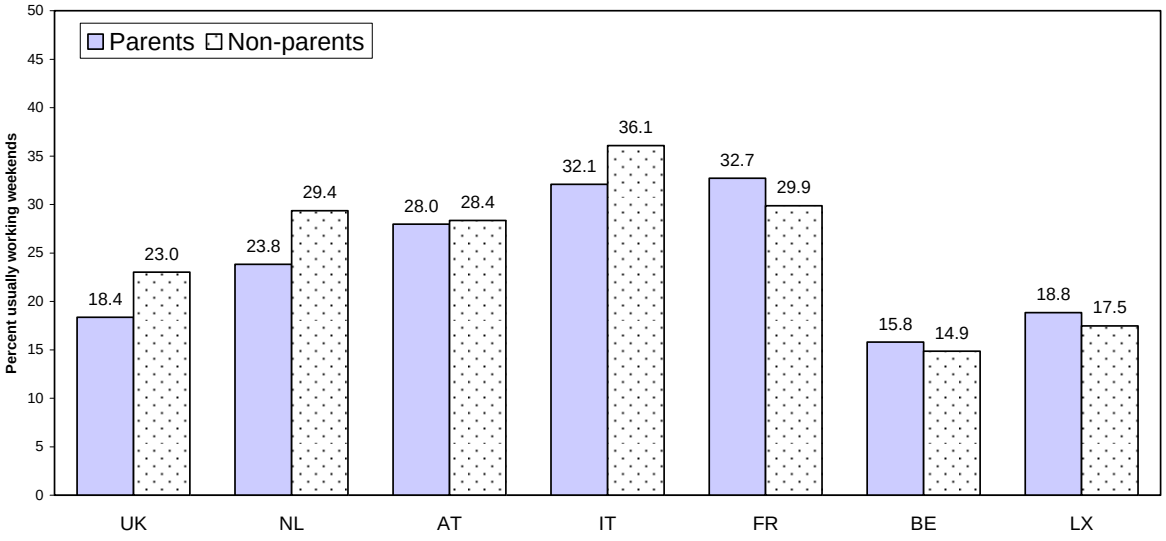

Figure 9B.
Weekend Work by Parental Status -- Men
Percent who usually work weekends (Saturday and/or Sunday)
by parental status
among nonagricultural male wage and salary earners aged 25-44:
7 European countries, 2005.

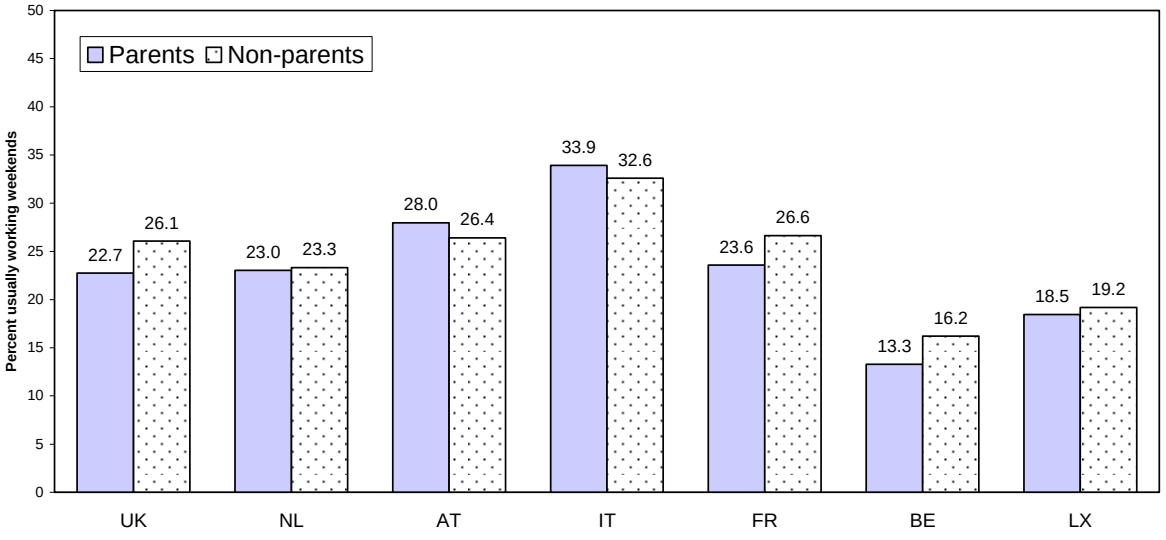

Table 1:
Gender coefficients on usual non-day employment
for nonagricultural wage and salary earners aged 25 to 64:
12 European countries

	gender		gender age education immigration status marital status		gender age education immigration status marital status hours worked multiple jobs industry occupation	
	Model 1		Model 2		Model 3	
NORDIC COUNTRIES						
Sweden	0.029		0.062		-0.241	***
	0.037		*0.038*		*0.048*	
Finland	0.081		0.154	***	0.018	
	0.044		*0.045*		*0.052*	
Denmark	-0.198	**	-0.223	***	-0.286	***
	0.067		*0.068*		*0.081*	
Norway	0.172	***	0.210	***	-0.017	
	0.047		*0.048*		*0.059*	
ENGLISH-SPEAKING COUNTRIES						
United Kingdom	-0.346	***	-0.354	***	-0.235	***
	0.024		*0.025*		*0.031*	
Ireland	-0.253	***	-0.233	***	-0.210	***
	0.036		*0.036*		*0.046*	
CONTINENTAL COUNTRIES						
France	-0.433	***	-0.422	***	-0.303	***
	0.035		*0.035*		*0.041*	
Austria	-0.658	***	-0.686	***	-0.465	***
	0.041		*0.041*		*0.052*	
Netherlands	-0.167	***	-0.175	***	-0.269	***
	0.024		*0.024*		*0.033*	
Belgium	-0.457	***	-0.451	***	-0.322	***
	0.065		*0.067*		*0.079*	
Luxembourg	-0.600	***	-0.598	***	-0.461	***
	0.074		*0.075*		*0.100*	
Italy	-0.664	***	-0.644	***	-0.447	***
	0.030		*0.031*		*0.035*	

* = p < 0.05, ** = p < 0.01, *** = p < 0.001

NOTE: Standard Errors in italics (below gender coefficients)

Variable categories: *Gender* : Male (ref.) and Female; *Age* : 25-34 yrs (ref.), 35-44 yrs, 45-54 yrs, 55-64 yrs; *Education* : Low, Medium (ref.), High; *Immigration* : Born in member state (ref.), Less than 11 years, 11 years and more; *Marital Status* : Single, Married (ref.), Separated; *Hours worked* : 1-9 hours, 10-24 hours, 25-29 hours, 30-34 hours, 35-39 hours (ref.), 40+ hours; *Multiple jobs* : One job (ref.), More than one job; *Sector* : Industry (ref.), Service; *Occupation* : Legislators and Managers, Professionals (ref.), Technicians, Clerks, Sales and Services, Crafts, Plant and Machine Operators, Elementary

Table 2:
Gender coefficients on usual weekend employment
for nonagricultural wage and salary earners aged 25 to 64:
12 European countries

	gender		gender age education immigration status marital status		gender age education immigration status marital status hours worked multiple jobs industry occupation	
	Model 1		Model 2		Model 3	
NORDIC COUNTRIES						
Sweden	0.200	***	0.244	***	-0.344	***
	0.049		*0.050*		*0.062*	
Finland	0.188	***	0.241	***	-0.149	*
	0.049		*0.049*		*0.058*	
Denmark	0.291	***	0.294	***	-0.207	*
	0.071		*0.072*		*0.090*	
Norway	0.010		0.064		-0.313	***
	0.054		*0.055*		*0.069*	
ENGLISH-SPEAKING COUNTRIES						
United Kingdom	-0.118	***	-0.102	***	-0.235	***
	0.028		*0.029*		*0.037*	
Ireland	-0.086	*	-0.055		-0.095	
	0.041		*0.042*		*0.053*	
CONTINENTAL COUNTRIES						
France	0.384	***	0.411	***	0.054	
	0.031		*0.031*		*0.037*	
Austria	0.114	**	0.106	**	0.013	
	0.036		*0.036*		*0.047*	
Netherlands	0.098	***	0.094	***	-0.239	***
	0.025		*0.026*		*0.036*	
Belgium	0.223	***	0.234	***	-0.063	
	0.068		*0.069*		*0.083*	
Luxembourg	0.055		0.057		0.202	*
	0.065		*0.068*		*0.093*	
Italy	0.027		0.050		-0.106	***
	0.025		*0.026*		*0.030*	

* = p < 0.05, ** = p < 0.01, *** = p < 0.001

NOTE: Standard Errors in italics (below gender coefficients)

Variable categories : *Gender* : Male (ref.) and Female; *Age* : 25-34 yrs (ref.), 35-44 yrs, 45-54 yrs, 55-64 yrs; *Education* : Low, Medium (ref.), High; *Immigration* : Born in member state (ref.), Less than 11 years, 11 years and more; *Marital Status* : Single, Married (ref.), Separated; *Hours worked* : 1-9 hours, 10-24 hours, 25-29 hours, 30-34 hours, 35-39 hours (ref.), 40+ hours; *Multiple jobs* : One job (ref.), More than one job; *Sector* : Industry (ref.), Service; *Occupation* : Legislators and Managers, Professionals (ref.), Technicians, Clerks, Sales and Services, Crafts, Plant and Machine Operators, Elementary

Table 3:
Parental status coefficients on usual non-day employment
for nonagricultural wage and salary earners aged 25 to 44:
7 European countries

	WOMEN			MEN		
	parental status	parental status age educ immigration status marital status	parental status age education immigration status marital status hours worked multiple jobs industry occupation	parental status	parental status age educ immigration status marital status	parental status age education immigration status marital status hours worked multiple jobs industry occupation
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
ENGLISH-SPEAKING COUNTRIES						
United Kingdom	-0.031	-0.083	-0.053	0.209 **	0.147	0.212 **
	0.086	*0.092*	*0.096*	*0.071*	0.077	0.081
CONTINENTAL COUNTRIES						
France	0.122	0.185	0.094	0.116	0.172	0.205
	0.149	*0.153*	*0.158*	*0.104*	*0.108*	*0.112*
Austria	-0.151	-0.067	-0.013	0.048	0.007	0.041
	0.122	*0.131*	*0.134*	*0.084*	*0.093*	*0.097*
Netherlands	0.108	0.092	0.034	0.134	0.068	0.074
	0.121	*0.126*	*0.130*	*0.083*	*0.088*	*0.093*
Belgium	0.182	0.316	0.322	0.075	-0.017	-0.040
	0.179	*0.200*	*0.209*	0.168	0.184	0.191
Luxembourg	-0.063	0.035	0.168	0.160	0.371 *	0.323
	0.237	*0.261*	*0.276*	*0.165*	*0.189*	*0.199*
Italy	-0.135 *	0.044	-0.033	0.125 *	0.060	0.057
	0.067	0.084	0.088	0.052	0.068	0.071

* = p < 0.05, ** = p < 0.01, *** = p < 0.001

*Analysis restricted to individuals between ages 25-44.

NOTE: Standard Errors in italics (below parental status coefficients)

Variable categories: *Gender*: Male (ref.) and Female; *Parental Status*: Non parent (ref.), Parent; *Age*: 25-34 yrs (ref.) and 35-44 yrs; *Education*: Low, Medium (ref.), High; *Immigration*: Born in member state (ref.), Less than 11 years, 11 years and more; *Marital Status*: Single, Married (ref.), Separated; *Hours worked*: 1-9 hours, 10-24 hours, 25-29 hours, 30-34 hours, 35-39 hours (ref.), 40+ hours; *Multiple jobs*: One job (ref.), More than one job; *Sector*: Industry (ref.), Service; *Occupation*: Legislators and Managers, Professionals (ref.), Technicians, Clerks, Sales and Services, Crafts, Plant and Machine Operators, Elementary

Table 4:
Parental status coefficients on usual weekend employment
for nonagricultural wage and salary earners aged 25 to 44:
7 European countries

	WOMEN			MEN		
	parental status	parental status age educ immigration marital status	parental status age education immigration status marital status hours worked multiple jobs industry occupation	parental status	parental status age educ immigration marital status	parental status age education immigration status marital status hours worked multiple jobs industry occupation
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
ENGLISH-SPEAKING COUNTRIES						
United Kingdom	-0.141	-0.071	-0.082	-0.090	-0.053	0.044
	0.095	*0.102*	*0.108*	*0.079*	0.088	0.094
CONTINENTAL COUNTRIES						
France	0.220	0.345 **	0.357 **	-0.121	-0.034	-0.057
	0.123	*0.127*	*0.132*	0.099	0.103	0.111
Austria	0.015	-0.067	-0.013	0.073	0.111	0.128
	0.104	*0.111*	*0.117*	0.084	0.092	0.098
Netherlands	-0.060	-0.025	-0.098	-0.020	0.079	0.106
	0.121	*0.127*	*0.134*	0.087	0.093	0.101
Belgium	0.012	0.033	0.125	-0.270	-0.224	-0.204
	0.160	0.183	0.196	0.179	0.198	0.210
Luxembourg	0.134	0.258	0.405	-0.038	0.209	0.116
	0.207	*0.229*	*0.260*	*0.158*	*0.184*	*0.202*
Italy	-0.135 *	-0.115	-0.186 *	0.030	0.004	0.030
	0.054	*0.069*	*0.075*	*0.048*	*0.063*	*0.067*

* = p < 0.05, ** = p < 0.01, *** = p < 0.001

*Analysis restricted to individuals between ages 25-44.

NOTE: Standard Errors in italics (below parental status coefficients)

Variable categories: *Gender*: Male (ref.) and Female; *Parental Status*: Non parent (ref.), Parent; *Age*: 25-34 yrs (ref.) and 35-44 yrs; *Education*: Low, Medium (ref.), High; *Immigration*: Born in member state (ref.), Less than 11 years, 11 years and more; *Marital Status*: Single, Married (ref.), Separated; *Hours worked*: 1-9 hours, 10-24 hours, 25-29 hours, 30-34 hours, 35-39 hours (ref.), 40+ hours; *Multiple jobs*: One job (ref.), More than one job; *Sector*: Industry (ref.), Service; *Occupation*: Legislators and Managers, Professionals (ref.), Technicians, Clerks, Sales and Services, Crafts, Plant and Machine Operators, Elementary