# LONG WORKWEEKS AND STRANGE HOURS 

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[^0]
#### Abstract

American workweeks are long compared to other rich countries’. Much less well-known is that Americans are more likely to work at night and on weekends. We examine the relationship between these two phenomena using the American Time Use Survey and time-diary data from France, Germany, the Netherlands and the United Kingdom. Only small parts of the U.S.European differences are due to observable characteristics. Adjusting for demographic and occupational differences, Americans' incidence of night and weekend work would drop by no more than 10 percent if the average European workweek prevailed. Even if no Americans worked long hours, the incidence of unusual work times in the U.S. would far exceed those in continental Europe.


## Introduction-The Question

It is well known that workers in the United States now work more hours than those in other wealthy countries. In 1979 the U.S. stood in the middle of wealthy OECD countries in its annual hours worked per employee. Today, it is the highest-ranked country in this dimension (OECD, 2014, Table K). A substantial and rising fraction of the labor force also works long hours each week (Kuhn and Lozano, 2008). The causes of these changes no doubt include rising wage inequality and many other phenomena (see Bell and Freeman, 2001), but our interest here is not in the source of these striking changes. Rather, we examine their relationship to another, much less well-known phenomenon: The greater propensity of American workers to be working on weekends and at night than workers elsewhere (Burda et al, 2008).

Working at night or on weekends makes one's non-work time less desirable because it is asynchronous with that of others' with whom one might wish to socialize (Jenkins and Osberg, 2005). Evidence for the inferiority of night and weekend work is its disproportionate performance by people with fewer skills and by minorities, and that it offers wage premia to otherwise identical workers to elicit a sufficient labor supply to meet demand (Kostiuk, 1990; Shapiro, 1995). American workers appear to be performing more work at less desirable times as well as working longer hours than their counterparts in other rich countries.

If someone works 120 hours per week, some work must be performed at night, and it is nearly certain that some will be performed on weekends. Almost nobody reports that many weekly hours; but with Americans reporting longer hours than workers in other wealthy countries, a reasonable question is: To what extent is the high incidence of work on weekends and at night related to Americans’ long work hours? Put in the context of policy, how much work would be performed at night or on weekends in the United States if the country enacted policies
that reduced weekly and annual hours of work, such as the laws limiting overtime and mandating vacations that exist in many continental European economies? ${ }^{1}$ Answering these questions is now possible because the creation of the American Time Use Survey (ATUS) has generated large amounts of information on American workers' timing of work, and because the Multinational Time Use Study (MTUS) allows for some comparability with time-use studies in other countries. ${ }^{2}$

## Measuring the Amount and Timing of Work

The ATUS and the country studies included in the MTUS contain two types of information on work time: 1) Recall information on hours of work in the past week, similar or identical to information available in the American Current Population Survey (CPS); and 2) A time diary of activities undertaken by the individual in the previous twenty-four hours. In addition to the ATUS from 2003 through 2011 for the U.S., we use the MTUS information for Germany, 2001-02; the Netherlands, 2000 and 2005, and the United Kingdom, 2000-01. ${ }^{3}$ We also use information from the original time-diary survey for France for 1998-99, giving us data from four industrialized nations to compare to the U.S. ${ }^{4}$

The upper panel of Table 1 provides information on the percent distributions and the averages of weekly work hours of employees under age 65 in the U.S. and the four European

[^1]countries. (The self-employed are excluded throughout this study.) The weekly averages of hours worked corroborate the longer work years in the U.S. that were suggested in the Introduction. Not only is the average workweek longest in the U.S.: Table 1 shows that, except for the U.K., the U.S. has a much higher percentage of employees working 45+ hours-nearly double that of Germany, and more than double those of France and the Netherlands.

In describing the timing of work in the ATUS and the MTUS components we deal only with paid work time. We ignore commuting time, time spent off the job in job search, and unpaid work. ${ }^{5}$ We consider a sample respondent as working on weekends if $\mathrm{s} /$ he completed a diary on a Saturday or a Sunday and reported performing any paid work. Table 1 indicates that work on weekends is more common in the U.S. than in the other countries, although the U.K. approaches the U.S. in the incidence of such work. ${ }^{6}$

The second category of "strange" work that we examine is work at night, defined here as any work performed between 10PM and 6AM inclusive, using the information from the diary on the time when activities are performed, which is consistent across the countries considered. ${ }^{7}$ On a typical day of the week, over one-quarter of American workers perform some work during this period (the overwhelming majority of them at its fringes). As Table 1 shows, such work is much more common in the U.S. than in continental Europe, and also more prevalent than in the U.K.

[^2](which throughout these comparisons is most similar to the U.S. among the four European countries).

While both types of strange work are more widely observed in the U.S. than in the other countries that we have considered, conditional on performing such work its intensity differs little between the U.S. and those countries. Indeed, while American employees are more likely to work nights and weekends than their European counterparts, in neither of those categories is the amount of such work, conditional on doing any, higher than in all of the other four countries; and in both it is no more than 0.2 hours higher than the average of the European countries. The American labor market is unique in the incidence of strange work, not in its intensity.

One might be concerned that the ATUS data cover a later period than the data for the four European countries and, perhaps even more important, include the Great Recession. If we restrict the ATUS sample to 2003-07, not surprisingly the distribution of usual weekly hours shifts very slightly to the right compared to the data in the upper panel of Table 1 . The percentages of workers performing strange work are about the same, with 33.7 percent of employees working on weekends, and 27.0 percent working at night. ${ }^{8}$

## The Determinants of "Strange" Work in the U.S.

We estimate the probability that a respondent in the ATUS 2003-11 works on the weekend and/or at night on a typical day as determined partly by the CPS-based information on the length of the workweek that is included with the time diaries. ${ }^{9}$ Thus our focus is on a vector of indicators of hours worked the previous week: 1-19 hours, 20-34, 35-44, 45-54, 55-64, and

[^3]$65+.{ }^{10}$ We also include a number of demographic measures, with the variables being chosen to allow the greatest comparability with the data for the other four countries. These include indicators of gender, marital status and an interaction of the two. Also held constant is the age of the youngest child in the household (two indicators), and employment in the public sector. Educational attainment is included and divided into three categories: Less than 12 years of schooling, 12 years, or greater than 12 years. Age is indicated by three categories: 34 or less, 3549 and 50-64. We also include vectors of indicators for the year of the survey (for the U.S. and the Netherlands, for which we use more than one survey) and of the occupational attachment of each worker (essentially one-digit occupation, chosen for comparability across the studies in the MTUS). ${ }^{11}$

We concentrate on the incidence of work at strange times, because the incidence, not the intensity, is the dimension along which the U.S. labor market differs from those in the other countries. The results of estimating these probits are presented in Table 2. Here we show only the probit derivatives/marginal effects of the indicators comprising the vector of hours worked. In both equations the probability of working at the particular time rises as hours increase beyond a standard workweek: Those workers with the longest hours are more likely than those with shorter (but still relatively long) hours to work at night or weekends. ${ }^{12}$ Indeed, the probability of

[^4]working at night on a particular day of the week increases monotonically in the number of hours worked. That is not true for work performed on weekends: In the U.S. the small (compared to those in the other countries shown in Table 1) part-time workforce is more likely to work on weekends than is the full-time workforce. The effects of differences in weekly hours on these probabilities are not small relative to the mean probability. Moving from the 50 percent of workers putting in a standard week (35-44 hours) to somebody among the 8 percent working 5564 hours nearly doubles the incidence of both strange times of work. ${ }^{13}$

While our focus is not on the other determinants of timing of work, the directions of their impacts is informative about the desirability of these types of work. Those workers who are better educated or older are less likely to work then, suggesting the undesirability of work at such times. The results on the incidence of night work are more mixed, but the predominant effect is a negative one of education on the incidence of night work, suggesting that it too is inferior.

## The Impacts of Shorter Hours and Other Factors on Strange Work

Using the probit coefficients (not the derivatives listed in Table 2) and similar estimates for each of the four European countries, we can decompose the raw differences in the incidence of each type of strange work into the part due to differences in the observed characteristics (or endowments) and the part due to structural (or unexplained) differences. ${ }^{14}$ Since our focus is on the impact of international differences in hours of work on the incidence of weekend and night work, we then decompose the "explained" part of the international differences in strange work

[^5]times into its sub-components, those due to differences in hours, in demographic characteristics and in occupational structures.

Table 3 presents the results of these decompositions. In the top row of each of the upper and lower panels of the table, we first present the raw gap between the U.S. and each of the other countries. The left-hand part of the table then presents the decompositions using the structure of the determinants of weekend and night work in the U.S. as the base, and the right-hand part uses the structures in each of the four European countries respectively as the base. The first thing to note is that the differences arising from differences in observed characteristics are typically small, although many are statistically significantly different from zero. Indeed, in several of the cases, if the U.S. had the same characteristics (hours, demographic and occupational endowments) as the other country, the incidence of strange work timing in the U.S. would be even higher. The only exceptions are the comparisons for weekend work that use France and Germany as the bases. Even in those two comparisons, however, less than half of the international difference in the incidence of work on weekends results from differences in the countries' observed characteristics.

The bottom three rows of each part decompose the (typically small) impacts of international differences in characteristics into the parts arising from each of the three sets of explanatory variables. Except for the comparison using France as the base for the incidence of weekend work, in none of these cases does the international difference in usual working hours account for more than twenty percent of the difference in the incidence of weekend or night work. If we average the impacts of differences in hours across the decompositions that alternatively use the U.S. and the European country as the base, even the estimated impact for France is only 0.027 , accounting for only 20 percent of the U.S.-French gap. The longer U.S.
workweek does not explain why weekend and night work is so much higher in the U.S. than in Europe.

Differences in demographic characteristics and in the occupational structure also do not account for the discrepancy. Indeed, for night work the demographic differences work in reverse: If the U.S. had the same demographic structure as the European countries, more night work would be performed. Occupational differences do account for nearly one-fourth of the difference in the propensity for work on weekends between the U.S. and Germany, but much less in the other comparisons.

What if American employers were induced, perhaps by a graduated scheme of overtime penalties, to cut long work hours so that all of those now working 55 or more hours per week saw their work time cut back to 45-54 hours per week? In that case the percentages of workers performing work on the weekend or at night would drop by 2.2 and 1.0 percentage points respectively. Even if the workweeks of all those working 45 or more hours were cut back to 3544 hours per week, the percentages would decline by only 6.3 and 1.2 percentage points.

## Gender Differences

While the probits that we estimated for each of the five countries included gender as a control variable, patterns of the raw gender differences are themselves interesting. To examine them we calculate the probabilities of weekend and night work and the mean time spent in such work conditional on performing any (the same concepts as the statistics shown in the bottom half of Table 1). We also calculate the differential incidence between men and women in these types of work conditional on all their other characteristics being identical.

Table 4 shows the raw incidence and conditional mean by gender for weekend and night work in the U.S. and each of the four European countries. American men are six percentage
points more likely than American women to work weekends, and nine percent more likely to work nights. For both types of work these differences are quite similar in percentage-point terms to those in the four European countries, with the exception of weekend work in France. That the differences are roughly the same between the U.S. and Europe means that the inference from Table 1, that strange work is more prevalent on average in the U.S., applies equally to international differences in the incidence of such work by gender.

Using the raw probits in Table 2 and those for the other countries that underlay the calculations leading to the statistics describing the decompositions in Table 3, we can infer what the incidence of weekend and night work would be if women had the same occupational and other demographic characteristics as men. We estimate the adjusted incidence of such work among women. As Table 4 shows, this adjustment only minimally affects the estimates of the incidence of weekend work by women. In the U.S. the incidence of night work among women, however, would be fairly close to that of men if the two sexes had otherwise identical characteristics; but in none of the European countries is more than half of the male-female differential in the incidence of strange work due to differences in the work hours, occupational distributions or other demographic characteristics.

Just as the main differences across countries in Table 1 were in the incidence of strange work, with the conditional means differing much less internationally, so too here we find that gender differences in the conditional averages of time spent in strange work are fairly small. While those men who do perform weekend work are slightly more likely to spend more time at it than women, for night work there is no general difference in the conditional mean amount of time spent in such work by gender.

## Conclusions and Implications

Using data from time diaries for the U.S. and four European countries, we have shown how much greater the incidence of work on weekends and at nights is in the U.S. compared to that in the other countries. Combining these data with information from the same surveys on the lengths of workweeks, demographic and occupational characteristics, we have examined the relationship between the longer American workweeks and the high incidence of what we have denoted as strange work.

Over one in every three workers performs some weekend work in the U.S., compared to one in five in France, Germany and the Netherlands; and over one in four workers works at night (between 10PM and 6AM, using a standard definition) in the U.S., compared to one in fourteen in France, one in seven in Germany and one in ten in the Netherlands. The U.K., while looking more like the U.S. than the rest of Europe, is still surpassed by the U.S. in the incidence of strange hours.

The results of decompositions of the U.S.-European differences, both those using the American and the other countries' characteristics as the basis of comparison, suggest that most of the differences are not due to differences in their characteristics; and only a little arises from Americans' long work weeks. The large majority of the differences between the U.S. and other countries appears to result from differences in the way that work is structured in America.

Our first purpose here has been to expose a few facts that are not well known, in particular, the very high incidence of work at unusual times in the U.S. compared to other rich countries, coupled with roughly the same intensity of such types of work as elsewhere. Our second purpose was to demonstrate how these high incidences relate to the well-known long workweeks that exist in the U.S. This latter demonstration of the uniqueness of the American
labor market, independent of its long work hours, calls for an explanation of this additional unusual aspect of work in America.

Whether these fundamental differences result indirectly from some unique, not easily measured characteristics of American and European culture or directly from their expression or absence of expression through legislation or institutions is unclear. One possibility is that the abandonment of "Blue Laws" in the U.S. has created an equilibrium that results in American uniqueness and a possibly sub-optimal labor-market equilibrium in work hours and their timing (Burda and Weil, 2005), perhaps offset by the greater convenience to consumers of longer shopopening hours. Whatever the explanations for the higher incidence of work at night and weekends in the U.S. than in Europe, its consequences may be quite dramatic in terms of fewer interactions with others and possibly worse health outcomes for Americans than Europeans.

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Table 1. Characteristics of Work Hours in the U.S. and Elsewhere: Amounts and Timing*

| Weekly Hours | $\begin{gathered} \text { U.S. } \\ \text { 2003-11 } \end{gathered}$ | $\begin{gathered} \text { France } \\ \text { 1998-99 } \end{gathered}$ | $\begin{gathered} \text { Germany } \\ \text { 2001-02 } \end{gathered}$ | Netherlands 2000, 2005 | $\begin{gathered} \text { U.K. } \\ \text { 2000-01 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hours: |  |  | Percent | Distribution |  |
| 1-19 | 5.2 | 5.8 | 8.5 | 16.9 | 13.1 |
| 20-34 | 12.5 | 16.6 | 17.4 | 27.0 | 15.6 |
| 35-44 | 50.5 | 74.0 | 56.4 | 41.1 | 39.7 |
| 45-54 | 19.6 | 2.6 | 10.6 | 10.2 | 18.2 |
| 55-64 | 8.3 | 0.6 | 5.1 | 3.6 | 8.5 |
| 65+ | 3.9 | 0.4 | 2.0 | 1.2 | 4.9 |
| Average Weekly Hours of Work: | 41.0 | 35.7 | 36.9 | 32.8 | 38.6 |
| Weekend Work: <br> Percent Working | 34.3 | 21.8 | 22.3 | 21.1 | 27.3 |
| Conditional Average (Hours/Day) | 5.5 | 5.3 | 4.5 | 5.5 | 6.2 |
| Night Work (10PM-6AM): Percent Working | 26.6 | 7.3 | 13.0 | 10.4 | 21.6 |
| Conditional Average (Hours/Day) | 2.1 | 2.3 | 1.5 | 1.8 | 2.0 |
| N = | 64,775 | 6,358 | 14,737 | 15,136 | 8,482 |

*Here and in Table 4 the statistics are calculated from samples taken from the MTUS, harmonized data sets based on each country's time-diary survey, except for France where we use the original data set. The American data set is the American Time Use Survey (ATUS). All the statistics here and in subsequent tables are based on sampling weights.

Table 2. Determinants of Probability of Weekend Work and of Night Work, U.S., 200311 (Probit Derivatives)*

| Weekend | Night |
| :---: | :---: |
| Work | Work |

Ind. Var.
CPS Hours/Week:

| $20-34$ | 0.0639 | 0.0855 |
| :--- | :---: | :---: |
|  | $(0.0164)$ | $(0.0144)$ |
|  |  |  |
| $35-44$ | -0.0233 | 0.1669 |
|  | $(0.0142)$ | $(0.0115)$ |
|  |  |  |
| $45-54$ | 0.1131 | 0.1929 |
|  | $(0.0159)$ | $(0.0144)$ |
|  |  |  |
| $55-64$ | 0.2591 | 0.2650 |
|  | $(0.0179)$ | $(0.0163)$ |
|  |  |  |
| $65+$ | 0.4171 | 0.3584 |
|  | $(0.0182)$ | $(0.0177)$ |
|  |  |  |
| Pseudo-R |  |  |
|  | 0.073 | 0.046 |
| $\mathrm{~N}=$ | 32442 | 64775 |

*The probit equations also include indicators for male, married, male and married, public-sector job, vectors of indicators of the age of the youngest child in the household and of educational attainment, indicators for the year of the survey and a vector of one-digit occupation indicators. Standard errors are in parentheses.

Table 3. Decompositions of the Probabilities of Weekend and Night Work, U.S. Compared to France, Germany, the Netherlands and the United Kingdom*

Reference Group:
U.S.

Other Country
Comparison to: France Germany The U.K. France Germany The U.K.
Netherlands
Netherlands
Probability of Weekend Work

|  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Gap: U.S. - Other | 0.125 | 0.120 | 0.132 | 0.070 | 0.125 | 0.120 | 0.132 | 0.070 |
| Due to |  |  |  |  |  |  |  |  |
| Endowments | -0.016 | 0.063 | 0.021 | -0.002 | 0.057 | 0.049 | 0.025 | -0.003 |
| Of Which: | $(0.025)$ | $(0.011)$ | $(0.006)$ | $(0.009)$ | $(0.008)$ | $(0.004)$ | $(0.003)$ | $(0.004)$ |
| Hours |  |  |  |  |  |  |  |  |
|  | -0.002 | 0.021 | 0.014 | 0.002 | 0.055 | 0.023 | 0.015 | -0.007 |
|  | $(0.018)$ | $(0.003)$ | $(0.060)$ | $(0.006)$ | $(0.002)$ | $(0.0016)$ | $(0.003)$ | $(0.002)$ |
| Demographics | -0.014 | 0.003 | 0.006 | -0.004 | -0.009 | 0.009 | 0.011 | 0.004 |
|  | $(0.018)$ | $(0.006)$ | $(0.005)$ | $(0.015)$ | $(0.008)$ | $(0.002)$ | $(0.002)$ | $(0.003)$ |
|  |  |  |  |  |  |  |  |  |
|  | -0.0002 | 0.039 | 0.001 | 0.0003 | 0.011 | 0.017 | -0.001 | -0.0004 |
| Occupations | $(0.010)$ | $(0.008)$ | $(0.0008)$ | $(0.001)$ | $(0.004)$ | $(0.003)$ | $(0.0002)$ | $(0.002)$ |

Probability of Night Work

| Gap: U.S. - Other | 0.193 | 0.136 | 0.162 | 0.050 | 0.193 | 0.136 | 0.162 | 0.050 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Due to |  |  |  |  |  |  |  |  |
| Endowments | -0.006 | 0.015 | 0.003 | 0.019 | -0.006 | 0.003 | 0.020 | 0.006 |
|  | $(0.008)$ | $(0.005)$ | $(0.002)$ | $(0.007)$ | $(0.006)$ | $(0.003)$ | $(0.002)$ | $(0.003)$ |
| Of Which: | 0.002 | 0.006 | 0.015 | 0.012 | 0.018 | 0.030 | 0.035 | 0.010 |
| Hours | $(0.002)$ | $(0.001)$ | $(0.006)$ | $(0.002)$ | $(0.003)$ | $(0.037)$ | $(0.002)$ | $(0.002)$ |
|  |  |  |  |  |  |  |  |  |
|  | -0.006 | -0.017 | -0.010 | -0.015 | -0.010 | -0.040 | -0.015 | -0.008 |
| Demographics | $(0.007)$ | $(0.003)$ | $(0.007)$ | $(0.006)$ | $(0.050)$ | $(0.052)$ | $(0.001)$ | $(0.001)$ |
|  |  |  |  |  |  |  |  |  |
|  | -0.002 | 0.026 | -0.002 | 0.022 | -0.014 | 0.013 | -0.0002 | 0.004 |
| Occupations | $(0.002)$ | $(0.004)$ | $(0.001)$ | $(0.003)$ | $(0.003)$ | $(0.013)$ | $(0.0001)$ | $(0.002)$ |

*Standard errors in parentheses. The decompositions are based on probit equations using the same dependent and explanatory variables as in the probit models presented in Table 2.

Table 4. Work Hours in the U.S. and Elsewhere by Gender: Means and Adjusted MaleFemale Difference (Standard Errors in Parentheses)*

|  | $\begin{aligned} & \text { U.S. } \\ & \text { 2003-11 } \end{aligned}$ | France 1998-99 | Germany 2001-02 | Netherlands 2000, 2005 | $\begin{gathered} \text { U.K. } \\ \text { 2000-01 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weekend Work |  |  |  |  |  |
| Percent Working: Male | 37.2 | 21.6 | 25.0 | 24.1 | 30.3 |
| Female: Raw | - 31.1 | 21.9 | 19.0 | 18.2 | 24.2 |
| Adjusted | - 32.0 | 19.2 | 22.1 | 17.6 | 25.3 |
| Conditional Average: Male | 5.7 | 5.2 | 4.7 | 5.6 | 6.6 |
| (Hours/Day) Female | 5.2 | 5.4 | 4.2 | 5.4 | 5.8 |
| Night Work |  |  |  |  |  |
| Percent Working: Male | 30.9 | 10.2 | 17.4 | 13.6 | 28.1 |
| Female: Raw | 21.9 | 3.8 | 7.5 | 7.2 | 14.8 |
| Adjusted | 28.0 | 5.9 | 11.6 | 8.9 | 21.3 |
| Conditional Average: Male | 2.1 | 2.4 | 1.6 | 1.6 | 2.0 |
| (Hours/Day) Female | 2.2 | 2.0 | 1.4 | 2.3 | 2.0 |

*The adjusted differences reflect the assumption that men's and women's other demographic characteristics, hours of work and occupational structure are identical. They are based on the same probits underlying the decompositions in Table 3.


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[^1]:    ${ }^{1}$ That laws mandating holidays do succeed in reducing the length of the work year is shown by Altonji and Oldham (2003) and Fakih (2014).
    ${ }^{2}$ See Hamermesh et al (2005) and Gershuny and Fisher (2014) for descriptions of the ATUS and MTUS respectively.
    ${ }^{3}$ We selected these countries to have representative coverage of different types of institutional contexts, with concerns for sample size and the years when the time diaries were collected. Like the U.S., the U.K. labor market is not heavily regulated; France has a highly regulated labor market; Germany has very structured labor markets, in which vocational training is much more widespread than in other European countries, and the Netherlands has an intermediate level of labor-market regulation (OECD, 2004, p. 72). Unfortunately, given their small sample sizes we could not include time-use surveys from any Scandinavian countries
    ${ }^{4}$ Calculating the statistics and doing the estimation on the MTUS data for France yielded essentially identical results.

[^2]:    ${ }^{5}$ Throughout this study we use sampling weights to account for differential participation of sampled respondents by their demographic characteristics and, more important in some of the surveys, including the ATUS, for the purposely uneven sampling of respondents across days of the week.
    ${ }^{6}$ The statistics should be interpreted as indicating whether the typical respondent works at all on either Saturday or Sunday. Because the ATUS only collects time diaries for one day per respondent, we cannot examine the incidence of working on both weekend days.
    ${ }^{7}$ We include spells of paid work that began at or after 10PM or before 6AM, and those that ended after 10PM or at or before 6AM. The MTUS data for Germany for 2001-02 do not have information on time of day, so we linked those data to the raw German data for that survey to obtain information on night work.

[^3]:    ${ }^{8}$ Using the smaller samples for 2003 alone, the percentages are 32.6 and 24.8 respectively.
    ${ }^{9}$ The information on the previous workweek is obtained when the diary is completed.

[^4]:    ${ }^{10}$ We re-estimated the models in this section with indicators reflecting alternative disaggregations of weekly work hours, with almost no changes in the substantive results obtained here. The same absence of change results if we use a cubic in hours instead of a vector of indicators.
    ${ }^{11}$ Based on the MTUS harmonization, comparable occupation dummies could be constructed for all the countries in this study except the Netherlands, for which we could only control for public- versus private-sector jobs. The estimates change little if we exclude the vector of occupational indicators. Nor do they change in the estimates for the U.S., where information on more variables is available, if we expand the vector of indicators of educational attainment by breaking down post-secondary school attainment, nor if we add indicators of immigrant status or urban residence.
    ${ }^{12}$ If we restrict the estimates to timing of work performed at the workplace, thus excluding work performed at home, there is little qualitative change in the results. (See Oettinger, 2011, for an examination of work performed at home in the U.S., where such work is more common than in these European countries.)

[^5]:    ${ }^{13}$ We do not distinguish hours worked on the main job from hours on second or additional jobs, so these patterns could also capture the fact that multiple job-holding more is more common in the U.S. than in Europe. Of course, this possibility does not contradict our argument that Americans work longer hours and more often at strange times.
    ${ }^{14}$ We decompose these differentials using the procedure written for STATA by Jann (2008), based on the nonlinear option included in that procedure. The unexplained part of the gap is given by the differences between the estimated coefficients in the two countries, as usual with this decomposition procedure.

