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Out of Time
The Consequences of Non-standard Employment Schedules for Family Cohesion

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The Consequences of Non-standard Employment Schedules for Family Cohesion

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Foreword

Since the 1990s the social consequences of policies promoting labour market flexibility have been central to the research agenda on the quality of work. In good part, assessments have been bleak: employer policies to adapt the size and use of their workforces to new and more competitive markets have been seen to imply major costs for the welfare of employees. Critics have pointed to the growth of temporary contracts, the continuous experience of internal organisational change, and increased work pressure as inherent outcomes of such policies, with severely damaging effects on individuals' well-being. But, within this context, the growth of non-standard work schedules to meet the demands of the 24 hour economy appeared particularly worrying. Not only had earlier research on shift work revealed significant negative effects on health, but non-standard schedules were thought likely to disrupt family life, imperilling both marital relationships and the care that parents could provide for children.

A good deal of the accumulating research on the effects of non-standard work schedules has been consistent with this pessimistic view of its implications. But the quality of existing evidence is deficient for two principal reasons: first it has tended to look at the implications of the work schedules of a specific individual, rather than examining the wider pattern of household working hours; second, it has been drawn largely from research on one country—the United States—and therefore has been unable to assess the extent to which such negative effects are conditional upon a particular type of employment and welfare regime. The authors of this book have set out to provide an analysis of the social consequences of non-standard work schedules that takes account both of household work patterns and of national institutional differences. This leads them to a much more nuanced, and in many cases quite different, set of conclusions to the previous orthodoxy. Moreover, by combining a qualitative with a quantitative methodological approach, they are able to show the limitations of interpretations dependent upon uncontextualised survey indicators and to highlight the diversity of motives that can underlie decisions about working times.

The fruitfulness of an approach taking the household as a unit is particularly evident in their analyses of the implications of non-standard hours for the relationship between parents and children. While some literature has argued that non-standard hours undermine parent-child relations, they show that such work time schedules provide a means by which parents can choose to spend more time with their children, allowing contact between the child and one or other of the parents for a longer part of the day. Dutch parents on non-standard schedules are able to have similar or even more quality time with their children than those on standard schedules. It is a system that is particularly beneficial for the involvement of fathers in child care. Another notable finding is that particular types of non-standard schedules can have rather different consequences for mens' and womens' perceptions of the quality of their relationships with their partners. For instance, varying hours and evening shifts were most problematic for women's views about the quality of their relations with their partners, while men's were most severely affected by weekend work. The authors relate this to the extent to which work times conflict with gender norms about domestic roles and, in the case of men, to the fact that weekend work was a reflection of particularly heavy overall workloads.

In the course of their analysis, the authors reveal an intriguing paradox. One of their important conclusions is that, contrary to a good deal of the earlier literature based on research in the US, there is little overall evidence of a negative effect of non-standard working hours on the current quality of relations between partners. In part, this can be accounted for by the fact that partners are actively choosing these types of work schedules in order to meet one of their critical partnership objectives —namely to bring up the children with a high degree of direct parental contact and a minimum reliance on public child-care assistance. They therefore in many cases prefer to desynchronise their hours so that at least one parent is available to take care of the children. But, while non-standard hours do not undermine partnership relations at a particular point in time, the authors' longitudinal analysis of their effects on the risks of divorce produces a much more worrying picture. Almost all types of non-standard hours appear to raise the probability of divorce four years later. This is clearly an issue that warrants a good deal of further research. But it raises the possibility that the flexibility that allows the couple to take turns in taking care of the children has consequences for communication within the couple and hence for the longer-term stability of partnerships.

Perhaps the most significant contribution of this volume lies in the contrast that it is able to draw between the effects of non-standard hours in countries with very different institutional regimes. Given the predominance of the US as the focus of prior research, the choice of the Netherlands as a contrasting case is particularly illuminating. The Netherlands has been a source of interest to researchers of the quality of working life for some time. On many dimensions of work, it is close to the Scandinavian countries in providing a work setting that gives employees exceptionally good physical work conditions as well as forms of job design that reduce risks of psycho-social stress through providing employees with relatively high levels of control over their work tasks. As the authors point out, it is also

distinctive in having not only exceptionally high levels of part time work but also a strong system of labour market regulation that, in contrast to the majority of Western capitalist societies, provides employment conditions for part-timers that are very similar to those of full-time employees. The fact that, unlike in the US, the immediate effects of non-standard hours on partners' family lives are relatively modest has to be seen in this context. It is quite different to be working non-standard hours when the overall working week is short and conditions on the job are good than when such schedules are associated with long hours and poor working conditions.

The study then makes an important contribution to the growing literature on the implications of differences in employment and welfare institutions for the quality of work. The Netherlands has been singled out earlier as an interesting alternative institutional model to neo-liberalism for its adoption of 'flexicurity' policies that seek to balance employers' needs to adjust workforce numbers in conditions of product market volatility and employees' needs for protection of their living standards and assistance in ensuring a rapid return to work. This study points to the possibility that there may be another important dimension of flexicurity. Given the pressures to destandardise working hours that flow from the growth of capital intensive manufacturing industry and a service economy, the Dutch institutional system has proved highly innovative in ensuring that the costs of work time flexibility for employee welfare are minimised. The book then strengthens the broader case for rejecting a single neo-liberal model of capitalist labour market development and examining alternative institutional models that may better reconcile the demands of productivity and the quality of life.

Nuffield College, Oxford Duncan Gallie

Preface

In the early 2000s, when we contacted the American academic Harriet Presser about this project and the possibility of studying the impact of nonstandard working times in the Netherlands she reacted with immediate enthusiasm and a personal visit. Harriet Presser's work on the 24-h economy and its impact on family life had inspired our thinking and work throughout the years before and after our meeting. Harriet was supportive and gave detailed comments and reactions from the inception phase of the project to virtually its completion. In May of 2012, we sadly lost Harriet Presser, but even when she was very ill, she continued to comment on the chapters within this book.

When Harriet visited the Netherlands, where both of the authors were working at the time, her first question was, "What do all of these Dutch women actually do with all of their time?" She was referring to the high levels of part-time work of the Dutch female labor market and relatively moderate levels of fertility. Moreover, as her international comparative research on the prevalence of nonstandard work schedules has indicated, contrary to expectations, there is a high prevalence of nonstandard schedule work in the Netherlands, which she could not really explain. Although we would need to write another book to actually answer her question, in addition to describing and explaining the phenomenon of nonstandard schedule work in the Netherlands, the current book also focuses on the stark cross-national differences between the US and the Netherlands and the impact of employment regulations, national cultural constellations, and working times on families.

We are likewise indebted to the forward thinking of the leaders and developers of the NWO-funded NKPS project, led by Pearl Dykstra, who dared to introduce qualitative mini-panels to accompany the quantitative survey data of the NKPS. We thank them for granting the money to carry out this project, which allowed us to adopt a highly innovative research design that used both advanced quantitative analyses combined with a qualitative sample of individuals across the Netherlands who were employed in nonstandard schedules. These narratives complimented our quantitative work and provided better interpretation of some of our results or

coefficients that could go beyond devising theoretical mechanisms ourselves. Moreover, the interviews were carried out three years after the first wave of data collection of the quantitative study, making it longitudinal in nature.

Finally, we would also like to thank Springer and specifically, Regine Reincke, Natalie Rieborn, and Mireille van Kan for their interest and enthusiasm with this book and project. Special thanks go to Riley Taiji for the help in proof reading the manuscript.

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Chapter 1
Introduction

Abstract Work in nonstandard times, such as in early mornings, late evenings, nights, weekends or bank holidays is neither a new, nor a rare phenomenon. In 2010, approximately one in five workers in the European working population reported that they usually work in the evenings and/or nights and a quarter in the weekends. Nonstandard work schedules tend to be more prevalent among families with young children, suggesting that work in nonstandard times is also a means of work-life reconciliation. Since nonstandard work schedules are not only an individual decision, but often a household matter, we contend that they should be studied at the household level. The potentially 'unhealthy' or 'off rhythm' nature of nonstandard working times means that they may have a considerable impact on household relations. This study investigates the impact of nonstandard work schedules on family cohesion in the Netherlands, which is a country where both the share of nonstandard work schedules, including families with children is one of the highest in Europe. The current chapter introduces the characteristics of the book as a whole and the data that used and via the use of comparative data, places the Dutch situation it into an international comparative context.

Keywords Nonstandard work schedules · Work-life reconciliation · Household relations · Family cohesion

1.1 Nonstandard Work Schedules and Family Cohesion

Nonstandard work schedules, which are defined as work in early mornings, late evenings, nights, weekends, or bank holidays, is not a new phenomenon. These irregular schedules have been an integral part of many occupations, such as midwives, nurses, security guards, firemen, and farmers. The 'atypical' or 'off time' nature of the day or location in the week when these work schedules take place has, however, raised a growing concern about the impact of these schedules on individuals and families (e.g., Davis et al. 2008; Maume and Sebastian 2012;

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Perry-Jenkins et al. 2007; Presser 2003). Next to the already considerable and growing amount of paid labor that now takes place in nonstandard times (Evans et al. 2001; Breedveld 2006; Presser 2003), the practice of nonstandard work schedules is increasingly related to the household situation of workers. People are often employed in these schedules out of personal preference or in order to facilitate work-life reconciliation, such as taking care of children (Wight et al. 2008; Presser 1983; Craig and Powell 2011; Tuttle and Garr 2012).

The impact of employment in nonstandard schedules on workers can be broadly divided into *individual-level, social and household* consequences and the influence of national-level context. The *individual level* includes personal characteristics such as health and well-being, one's occupation and whether work in nonstandard schedules is part of it and the intensity that individuals are engaged in these schedules. Turning first to individual-level findings, a great deal of research has established an association of these schedules with poorer health and higher risk factors for chronic disease, such as higher levels of stress, sleeping disorders, maternal depression, smoking, lack of exercise, obesity, higher alcohol use and cardiovascular disease (Wang et al. 2012; Bushnell et al. 2010; Daniel et al. 2009; Fenwick and Tausig 2001; Jamal 2004; Schulz et al. 2004).

There is less clarity, however, about the *social consequences* of working these schedules, particularly for families in terms of partnership quality between couples or parent-child interaction. In this type of research, associations of work schedules with family outcomes are generally examined at the *household level* including characteristics such as the presence of a partner, partner's working schedule, and presence and age of children. These factors can determine both the individual's or household's selection into nonstandard work schedules as well as shape the consequences that these types of schedules might have on family life.

One stream of research finds no or even a positive association of these types of schedules with family cohesion and work-family reconciliation in households. These are mostly related to childcare activities where parents use nonstandard working times to arrange childcare (Presser 1983; Craig and Powell 2011) or to spend more time with children (Barnett et al. 2008; Han and Waldfogel 2007). As recently noted, however, the parental involvement of those employed in nonstandard schedules is highly sensitive not only to household arrangements, but also country context (Hook and Wolfe 2013). Another stream of research finds a significant negative association on the relationship between nonstandard workers and members of the family (Hertz and Charlton 1989; Perry-Jenkins et al. 2007). The findings on reduced partnership quality and satisfaction (White and Keith 1990; Weiss and Liss 1988; Maume and Sebastian 2012); less or reduced quality time with children (Strazdins et al. 2004; Han et al. 2010; Han 2005; Hook 2012); and increased partnership dissolution risk (White and Keith 1990; Presser 2000) for those who work nonstandard schedules suggest that nonstandard work schedules has a strong (negative) impact on family cohesion (i.e. the quality and stability of relations between the family members). This appears to particularly be the case for women.

It is likewise important to acknowledge the *national institutional level* which necessitates attention to characteristics such as the prevalence of nonstandard work schedules in a particular country, regulation of working time and employment regulation within nonstandard times, availability and accessibility of (public) childcare facilities for working parents and cultural norms regarding the care of children. Together, these shape the prevalence, role and meaning of these schedules in society and in households as well as the impact of these schedules on worker's lives (Mills and Täht 2010; Hook and Wolfe 2013).

1.2 Central Research Questions and Outline of this Book

The central overarching question of this book is: *What is the impact of nonstandard working time on family cohesion?* Stemming from this, we ask several interrelated sub-questions, which make up the individual studies and chapters within this book. These are: *Where are nonstandard schedules located and who becomes engaged in them? How are nonstandard work schedules associated with family cohesion—namely partnership quality and parent-child interaction? What is the impact of nonstandard work schedules on longer term partnership stability? What is the role of institutional settings on the location and associations of family cohesion with nonstandard work schedules?* A summary of the main research aims and central topics under study in each chapter is shown in Table 1.1.

In Chap. 2 we answer the first research question and examine the location of nonstandard work schedules and explore the demographics of who is more likely to become engaged in them. This allows us to investigate the relationship between individual, social and societal aspects with these types of schedules. Here both occupational and household aspects are essential to consider. On the one hand,

Table 1.1 Outline of main research questions and core topics examined in this book

Chapter	Research aim	Core variables and topics
1	Defining nonstandard schedules, comparing units of analysis, situating the Netherlands in a broader European context	Individual versus household units of analysis of nonstandard measures, nonstandard work schedules (shifts, days)
2	In which occupations, household structures and with which types of individuals are nonstandard schedules prevalent	Working schedules, earnings, occupational, household and individual characteristics
3	Nonstandard schedules, couple desynchronization and parent-child interaction	Number of joint family meals, time spentwith children, childcare activities, working schedules
4	Nonstandard schedules and partnership quality	Perceived level of partnership conflict and dissatisfaction, working schedules
5	Nonstandard schedules and partnership dissolution	Longitudinal examination of working schedules of both partners and partnership dissolution

we are interested in uncovering in which occupations nonstandard schedules are the most prevalent and whether these schedules and the employees engaged in them are characterized by specific employment features. On the other hand, it is important to understand the role of household context (e.g., presence and status of partner, presence and age of children) in working nonstandard schedules.

The second and third research questions build on the potential bi-directional relationship between nonstandard work schedules and the household context. While the previous question and Chap. 2 explore the relationship between the household situation and employment in nonstandard schedules, the second and third research questions examine the relationship of being employed in these schedules with family cohesion. Family cohesion is an umbrella term that encompasses the quality and stability of partnership (couple) relations and parent-child interaction. Since working nonstandard schedules has the potential to situate workers as 'out of sync' with the rest of their family and society in general, it creates great challenges for family cohesion. Since the institutional context of where individuals are embedded into in their everyday life (e.g., office and shop opening hours, kindergartens, schools, entertainment facilities, social clubs, etc.) generally functions during 's-tandard' times, families with one or more workers engaged in nonstandard work schedules may be inhibited in spending leisure or family time together or jointly participating in social activities. They may be also losing out on the potential time that they can spend with each other, leading to reduced time and quality of family interactions (Lesnard 2008; Hook 2012). In order to assess the association of employment in nonstandard schedules with parent-child interaction, in Chap. 3 we examine how parents' work in nonstandard schedules affects their time and activities with children. In order to assess the relationship between and impact of nonstandard work schedules times on the interaction between partners, we adopt two approaches. In Chap. 4 we focus on the relationship between working in nonstandard schedules with partnership quality, defined as the level of conflict in the partnership and general (dis)satisfaction with the relationship. To assess the more causal or long-term effect of nonstandard work schedules on family cohesion, in Chap. 5 we examine the impact of whether previously working in nonstandard work schedules later increases the risk of partnership dissolution.

While the initial research questions examine the association between nonstandard schedules and workers, the final research question focuses on the moderating effect of country-specific context. More precisely, it aims at revealing and disentangling the role and function of country-specific institutional context on the prevalence, location and impact of nonstandard work schedules. In order to study the potential role of nation-specific contexts, we also engage in a cross-national comparison. The Dutch context, which is central to this study is compared to the United States, both in terms of the use of comparative literature throughout, but also empirically in Chaps. 2 and 5.

1.3 Empirical Approach: Data and Analytical Methods

In this book, we use several different types of quantitative survey data and also engage in mixed-methods, with the use of semi-structured qualitative interviews. The central data source used through this study is the Netherlands Kinship Panel Study (NKPS) (Dykstra et al. 2004). The NKPS is a multi-actor, multi-method panel study with data collected from a random sample of individuals within private households in The Netherlands, aged 18–79. The first wave of the data (N = 8,161), which will be used as the main data source throughout this book was collected in 2002–04. The second wave of the NKPS (N = 6,091) was collected approximately 5 years later, in 2007–08 and is also used for a longitudinal analysis in Chap. 5. Since different types of sub-samples and analyses are conducted throughout this book, the details about the sub-samples, data quality, as well as panel attrition are discussed separately in each chapter. A unique feature of the NKPS is that it contains detailed working schedule data for both the respondents and the partner (if present). The latter permits us to study the phenomenon of nonstandard work schedules not only at an individual, but also at a household level.

To engage in more direct empirical comparisons with the United States (Chap. 2 and in Chap. 5), the data comes from the first and second waves of the U.S. National Survey of Families and Households (NSFH) (Sweet et al. 1988). The first wave of the NSFH took place in 1987/88 (N = 13,007) and the second wave data was collected in 1992 (N = 10,005). The data is a national probability sample of men and women aged 19 and over. As the NSFH was to a great extent a model for the NKPS survey design, the two data sets are highly comparable.

One potential limitation is that the two datasets are collected around 15 years apart from one another. Since the United States is introduced to the study in order to explore the underlying mechanisms behind individuals' and households' choices for nonstandard work schedules in both countries, this time gap is not crucial. As shown already in previous studies, (Breedveld 1998; Presser 2003), even at the end of 1980s, the prevalence of nonstandard schedules in the United States was higher than in The Netherlands in 2004. Thus, The Netherlands and the U.S. were even then and still remain as two rather different cases regarding the prevalence of nonstandard schedule employment.

In order to place the Dutch case into the broader European context, we also analyze the most recent EU Labor Force Survey (EU-LFS) micro data (2012 release). The EU-LFS is a cross-sectional and longitudinal household sample survey, coordinated by Eurostat, based on data from the EU member states and EU-candidate countries, and three EFTA countries. The database consists of individuals who are both in the labor market, but also those outside of the labor force. More crucially, the data offers a unique cross-national opportunity to examine comparative measures on employment in nonstandard schedules. Respondents were asked to assess whether and how often they work in the evenings (18–24 pm), nights (after midnight), Saturdays and/or Sundays. The micro-data contains 29 European countries, with a large sample of respondents (N = 1,186,778). Due to the

lack of data on work in the evenings, Portugal needed to be excluded from non-standard shift analysis, leaving to this part of analysis 28 countries.

Next to the quantitative data, in several chapters (Chaps. 3 and 4), we adopt a mixed-method approach, which includes not only the use of the quantitative survey data described above, both also qualitative data. Although the NKPS provides detailed information on respondents and partners working schedules as well as perceptions on partnership quality and various family interactions, the quantitative data is challenged when we want to delve further into understanding the mechanisms and strategies of how nonstandard schedules are integrated into the household time-structure. The quantitative data also provides limited information on personal perceptions on why individuals engage in these schedules and the personal experiences of workers and their families. We therefore also collected qualitative data in the NKPS Mini-Panel "The Impact of Nonstandard Working Schedules on Partnership Quality and Stability" (Mills and Hutter 2007). Using a purposive sampling strategy (Marshall and Rossman 1999) (described in more detail in each chapter), we had the unique opportunity to be able to draw a sample from the first wave of the NKPS quantitative survey. The data consists of semi-structured interviews with 34 individuals and couples, where at least one of the respondents is or has previously been engaged in nonstandard schedules. The interviews were carried out 3 years after the first wave of data collection of the quantitative study, giving it a longitudinal character.

The analytical methods used in each chapter are discussed in more detail within the chapter itself. Briefly, Chap. 2 engages in a very detailed analysis of nonstandard schedules and individual's monthly (log) earnings by occupation, number of hours, age and other relevant individual and household characteristics. After the presentation of descriptive results, a series of OLS, logistic regression and Sheaf coefficients are estimated. Both Chaps. 3 and 4 employ mixed-methods, which include an ordered logit regression model, multilevel dyadic (random effect) models (Chap. 3) and a qualitative analysis which primarily relies on narrative analysis. Finally, in Chap. 5 we move from the more association-type analyses of cross-sectional data to a longitudinal examination using multiple waves of data. Here we estimate a series of logistic regression models of whether partnerships (marriage or cohabitation) remained intact or were dissolved over time in relation to being employed in nonstandard shifts and day and other vital factors such as partner, family and other household information. In this chapter we once again examine couple's working schedule combinations, which are described within this chapter.

1.4 Defining Nonstandard Schedules

The manner in which nonstandard schedules are operationalized varies considerably: from counting all the hours outside certain days and times of the day, to including only strict categories that reflect certain working patterns (for example see Golden 2001; Breedveld 1998; Venn 2003; Presser 2003; Dunifon et al. 2013).

The diversity in definitions and the operationalization is partly attributed to the variety in legal regulations and the heterogeneity within working time length and organization, but also how it is measured in survey data. This, in turn, partially explains the sometimes remarkable differences in the prevalence and impact of work in nonstandard times within and between countries (Beers 2000; Evans et al. 2001; Presser 2003; Hamermesh 1999; Hook and Wolfe 2013).

Despite the variety of definitions, there tends to be a general agreement that nonstandard working schedules include at least two temporal dimensions—*hours* and *days*. One of the main arguments for differentiating between days and hours is the potential impact that working in these times has on worker's lives (White and Keith 1990; Fenwick and Tausig 2001). While working in the evening and nights tends to have also strong physical and psychological effect on workers (Bushnell et al. 2010; Wang et al. 2012), the consequences of weekend (day) work are predominantly social (Davis et al. 2008).

The current study also differentiates between nonstandard hours and days. For categorizing nonstandard hours, the definition uses the 'majority' criteria (for more see Presser 2003). The respondents were asked to fill in a table on their working hours in past week. The respondents were asked to indicate, for each day, whether they worked that day, and then indicate when did they start and when did they stop working. From this data was calculated the actual working time and also what time of the day did the work take place. The majority rule derives shifts from the majority of hours worked in majority of the days of the week, regardless of whether they are in weekdays or weekends. Different shifts are then defined as follows: day shifts are when the majority of hours are worked between 08:00 and 16:00; evening shifts when these hours are between 16:00 and 24:00; and night shifts are assumed when the most hours are worked between 0:00 and 08:00. When no clear pattern can be distinguished, but work takes place in nonstandard hours, the schedule is defined as 'hours vary'. Nonstandard days, in turn, are defined as day shifts where all or part of the work takes place during weekend days (Saturday and/or Sunday). Standard schedules refer to day shifts which are worked during weekdays (Monday to Friday).

Compared to other definitions, the 'majority-rule' specification has several advantages. Firstly, it provides clear, mutually exclusive categories of different schedule types. Secondly, it allows differentiation between individuals randomly or occasionally working nonstandard times and individuals who are regularly engaged in them. Thirdly, the definition is used in many other studies, especially in the work of Harriet Presser (2003), who was one of the leading researchers and pioneers in the field particularly examining the United States. Using the same operationalization allows a more systematic comparison between The Netherlands and (previous findings on) the United States. Finally, the definition follows to a great extent the existing working time pattern of Dutch workers. As can be seen in Fig. 1.1, the majority of those actively involved in labor market in The Netherlands start their working day between 8 and 9 o'clock in the morning and finish between 16 and 17 o'clock. Thus, a 'typical' or 'standard' working day falls between the standard times of 8 and 16 o'clock. Also during Saturday, the majority of those hours that are

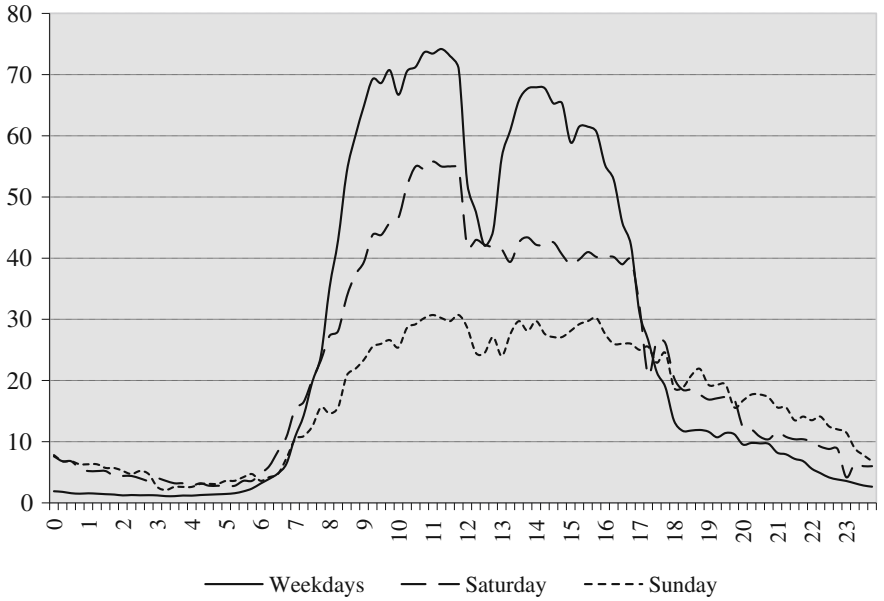

Fig. 1.1 Proportion of work carried out in certain hours in The Netherlands. *Source* Time-budget Survey (TBO) 2000; author's calculations. *Note* Proportions refers only to those who are working. Working time excludes travel to/from work and coffee/lunch/dinner breaks

worked fall between this time-frame, although in weekend days, hours are in general more spread over the day than in an average weekday.

One of the weaknesses and limitations of the 'majority' definition is that in its categorical representation it is insensitive to the number of hours worked in these schedules. On the one hand, it may underestimate overtime work in general. On the other hand, even those who work very few hours (for example only in the weekends) are assigned into one of the schedule categories. We acknowledge that this type of categorization has been criticized for the fact that mothers in the U.S. often work both standard and nonstandard times (Dunifon et al. 2013). While overtime work is not a big issue in The Netherlands (Evans et al. 2001), part-time work is, and the issue of number of working hours is therefore addressed and controlled for throughout the whole study.

For the European comparison of nonstandard work schedules, we use a different measure, which is a subjective assessment of working time. The European Labor Force Survey data does not permit us to construct a 'majority measure' of nonstandard work schedules, but instead provides data on respondent's self-assessment on frequency of work in the evenings, nights, Saturdays and/or Sundays. The frequency of each type of nonstandard work schedule is measured on a scale as follows: works usually, works sometimes, never works in that particular type of schedule. In order to 'filter out' those who are engaged in these nonstandard schedules on a more regular basis, working nonstandard schedules is considered to

consist of respondents who report that they 'usually' work in nonstandard shifts and/or days. It is important to note that the two measures are not directly comparable since they measure a somewhat different representation of work schedules. While the 'objective' or majority measure tends to uncover the presence of certain types of nonstandard schedules, the 'subjective' measure gives an idea of the prevalence and practice of nonstandard working times in a more general manner.

As can be seen from Table 1.2, according to the 'subjective' measure in the NKPS, about 38 % of the working population in The Netherlands assesses that they work regularly or almost every week in the evening hours. Whereas according to 'objective' measure also in the NKPS, the share of workers who work predominantly in evening shifts is about 5 %. Regarding night work, it is around 9 % for the 'subjective' and about 1 % for 'objective' measure, respectively. The differences between 'objective' and 'subjective' nonstandard work schedules are smaller in the case of weekend work. According to the 'objective' measure, the share of weekend workers is about 18 % while according to the 'subjective' measure it is about 30 %. In the 'subjective' measure there is also a category called 'hours vary', which includes about 3 % of working population which largely consists of evening and/or night workers. According to the 'subjective' measure, the share of working population who never works evenings, night and weekends is about 29 % and the share of those who work it never or sometimes is about 54 %, whereas the 'objective' measure of people who work mainly 'standard' schedules (day hour, work days only) reaches almost 73 %. See also Dunifon et al. (2013) for a more detailed discussion of types of measurement of nonstandard schedules in survey data.

When comparing the prevalence of nonstandard work schedules in Dutch society across different data sources, we can see that the findings based on the subjective measure in the NKPS (2002/4) data are very much in line with the findings from the EU-LFS data in 2010 (for the EU-LFS data, see Fig. 1.2). Unfortunately, the EU-LFS data does not contain any information on nonstandard work schedules for

Table 1.2 'Subjective' and 'objective' measures of nonstandard schedules in the NKPS, %

'Subjective' measure		'Objective' measure	
(not mutually exclusive categories)		(mutually exclusive categories)	
Weekday evenings (6:00–12:00 pm) Regularly; almost every week	38.4	Fixed evening	4.9
Weekday nights (after midnight) Regularly; almost every week	9.0	Fixed night	1.3
In the weekends Regularly; almost every week	41.3	Weekend day work	17.7
Evening, night and weekend work Never; sometimes	*54.1*	Day shift, weekdays	73.1
		Hours vary	3.0
Total (N)	4,344		4,344

Data NKPS, 1st wave, 2002–04; Author's calculations
Notes Sample—18–64 years old population, works at least 12 h a week

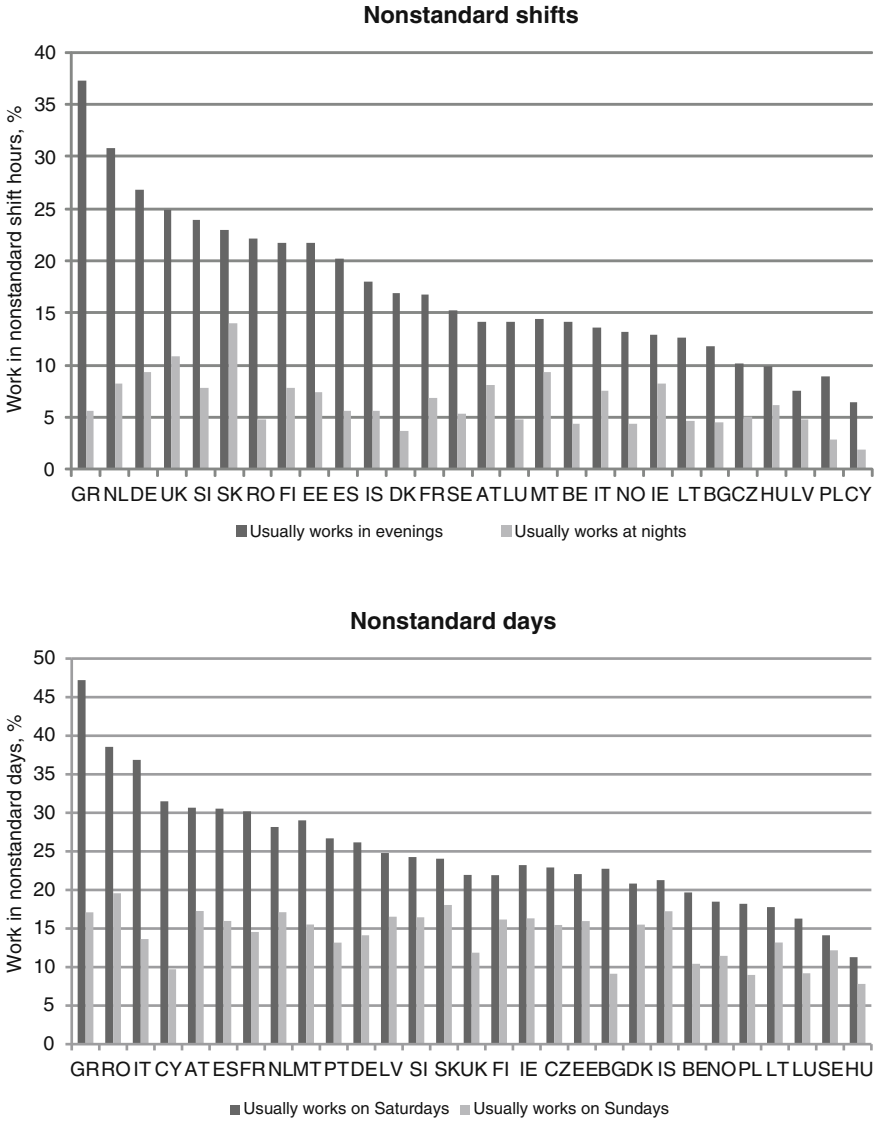

Fig. 1.2 Work in nonstandard times in European countries (2010), %. *Source* European Labor Force Survey 2010, authors' calculations. *Note* Sample—working population, aged 15+

The Netherlands in more historically comparable 2004 dataset. Given the general stability of the share of nonstandard work schedules in Dutch society for almost three decades (Breedveld 2006), we are confident that the findings applying the 'subjective' measure of nonstandard work schedules between the NKPS 2004 and EU-LFS 2010 data are generally comparable.

1.5 Unit of the Analysis: Individual or Household

Nonstandard schedules are generally examined at the unit of the analysis of the individual. However, the household context plays a pivotal role in individuals' (self)-selection into nonstandard work schedules. For example, one partner's nonstandard work schedule may affect the other partner's preference or ability to work similar schedules so that they can spend more time together (Venn 2004). In a similar manner, when young children who require care are present in the household, in the face of limited (public) childcare facilities, one partner may switch to working nonstandard times while the other works in standard schedules so that partners can desynchronize their schedules (Carriero et al. 2009; Lesnard 2008) and share the child care tasks (Wight et al. 2008; Strazdins et al. 2006; Craig and Powell 2011).

The decision to work nonstandard schedules often takes place not only at the individual, but also at the household level (Becker 1981). The current study therefore extends existing research to also examine couple and household data, which has largely been ignored due to the focus of examining nonstandard work schedules at the individual level. The approach is to analyze the individual and working schedules in the household context, considering the presence of the partner, partner's employment status and partner's working schedule. A central interest here is whether and to what extent partners combine—*synchronize* and *desynchronize*—their paid work outside of the household (Lesnard 2008). Synchronization of schedules refers to the situation where partners are engaged in paid work during the same (standard or nonstandard) hours and days. Desynchronization of schedules refers to partners' engagement in paid work during different hours and days, such as one partner working in standard and the other in nonstandard times.

The top panel of Table 1.3 shows various schedule combinations of the co-residential couples in The Netherlands (based on the NKPS data), with the most dominant being both partners working standard schedules (35.9 %), followed by the male partner in a standard schedule and the female partner not working (23.3 %). A considerable number of households (in total 36.2 %) have one or both partners working in nonstandard schedules (shifts or days). Within this group, the dominant pattern is the male partner working nonstandard days (weekend work) and his partner in a standard schedule (8.2 %) or is not employed (6.2 %).

Table 1.3 also shows differences in couples' schedules according to the presence of children. Compared to households without children, there is a considerably higher share of men working standard schedules and women in nonstandard shifts among households with young children (a difference of 2.9 and 6.7 %). There is likewise an increase in schedule combinations with men working nonstandard days and women in nonstandard shifts (a difference of 0.6 and 2.0 %). This suggests the presence of 'tag-team' parenting via the use of nonstandard schedules, which we explore in more detail in Chap. 3.

Not only the combination of schedules, but also the combination with the number of hours is important in The Netherlands, which is shown in the bottom panel of Table 1.3. This indicates the predominance of part-time work and the one-and-a-half earner family model (37.4 % of couples) and the male-breadwinner model with men

Table 1.3 Couples' working time combinations among various family types in The Netherlands: combinations of number of weekly working hours, and types of working schedules, % (N)

	All couples	With no children[1]	With youngest child 0–3 years[2]	With youngest child 4–12 years[2]	With youngest child 13+ years[2]
Schedule combinations					
Male NW; female NS shift	1.1 (31)	1.6 (17)	0.2 (1)	0.7 (5)	1.7 (8)
Male NW; female NS day	1.1 (31)	2.0 (22)	0.6 (3)	0.3 (2)	0.9 (4)
Male NW; female S	4.6 (130)	7.6 (82)	2.0 (11)	1.8 (13)	4.9 (23)
Male NS shift; female NW	2.1 (58)	1.2 (13)	2.6 (14)	2.9 (21)	2.1 (10)
Male NS shift; female NS shift	0.6 (18)	0.4 (4)	0.6 (3)	1.2 (9)	0.4 (2)
Male NS shift; female NS day	0.5 (13)	0.4 (4)	0.9 (5)	0.3 (2)	0.4 (2)
Male NS shift; female S	2.6 (73)	2.5 (27)	2.6 (14)	3.0 (22)	2.1 (10)
Male NS day; female NW	6.2 (176)	5.3 (58)	5.6 (30)	7.7 (56)	6.9 (32)
Male NS day; female NS shift	1.1 (32)	0.6 (6)	2.0 (11)	1.5 (11)	0.9 (4)
Male NS day; female NS day	3.0 (85)	4.0 (43)	1.7 (9)	2.9 (21)	2.6 (14)
Male NS day; female S	8.2 (230)	8.1 (88)	8.0 (43)	7.4 (54)	9.7 (45)
Male S; Female NW	23.3 (658)	19.1 (208)	21.6 (116)	27.9 (203)	28.1 (131)
Male S; female NS shift	4.2 (118)	2.9 (32)	6.7 (36)	4.0 (29)	4.5 (21)
Male S; female NS day	5.5 (156)	6.3 (68)	5.6 (30)	5.2 (38)	4.3 (20)
Male S; Female S	35.9 (1,011)	38.1 (415)	39.4 (212)	33.2 (242)	30.5 (142)
Working hour combinations					
Male NW; female PT	4.4 (125)	7.8 (85)	1.1 (6)	1.6 (12)	4.7 (22)

(continued)

Table 1.3 (continued)

	All couples	With no children[1]	With youngest child 0–3 years[2]	With youngest child 4–12 years[2]	With youngest child 13+ years[2]
Male NW; female FT	2.4 (67)	3.4 (37)	1.7 (9)	1.1 (8)	2.8 (13)
Male PT; female NW	3.8 (108)	4.7 (51)	1.9 (10)	2.7 (20)	5.8 (27)
Male PT; female PT	6.0 (169)	6.1 (66)	7.6 (41)	6.7 (49)	2.8 (13)
Male PT; female FT	2.5 (71)	4.0 (43)	1.3 (7)	2.2 (16)	1.1 (5)
Male FT; female NW	27.8 (784)	21.0 (228)	27.9 (150)	35.7 (260)	31.3 (146)
Male FT; female PT	37.4 (1,055	23.9 (260)	51.9 (279)	44.1 (321)	41.8 (195)
Male FT; female FT	15.6 (441)	29.2 (318)	6.7 (36)	5.8 (42)	9.7 (45)
Total % (N)	100.0 (2,820)	100.0 (1,088)	100.0 (538)	100.0 (728)	100.0 (466)

Source NKPS 2002–4; Authors' calculations
Note Sample couples, where at least one of partners is working. No children[1]—no children and no children living at home. Age[2]—refers only to children living home
Abbreviations NW—not working or working less than 12 h a week; *PT*—part-time work (12–35 h a week); *FT*—full-time (more than 35 h a week); *NS shift*—nonstandard shifts (fixed evening, night, hours vary); *NS day*—nonstandard days (working in Saturdays/Sundays, day hours only); *S*—standard schedule (fixed day schedule, in weekdays only)

working full-time and women engaged as a homemaker (27.8 % of couples). Around 15 % are full-time dual-earners and even in couples without children, only 29.2 % of couples both work full-time. Again, we also see similar patterns of schedules divided between those with and without children. The table illustrates that having children is associated with an adjustment of schedules and work hours into predominantly the male partner working full-time and women working part-time.

It is also interesting to examine how these two elements—schedules and hours—are combined within couples' schedule combinations, with all possible combinations shown in Table 1.4. Focusing on nonstandard schedules, a dominant pattern is a desynchronization of partners' schedules, a finding also recently confirmed as a unique feature of the Dutch context (Carriero et al. 2009). This desynchronization strengthens with the arrival of children in the family to operate as tag-team parenting (see also Chap. 3). Many of the nonstandard schedules (especially shifts) are worked in a part-time arrangement, which likely serves as a 'buffer' for potentially negative physical, psychological and social effects of this type of work.

For the purpose of the analysis, the maximum of the possible 48 schedule combinations presented in Table 1.4 were collapsed into the 13 most dominant categories. The categories and the frequencies of these collapsed categories are summarized in Table 1.5.

Table 1.4 Couple's work schedule combinations in The Netherlands: nonstandard schedules and working time, % (N)

		Female							
		NW	NS shift PT	NS shift FT	NS day PT	NS day FT	S PT	S FT	Total male
Male	NW	0.0 (0)	0.8 (23)	0.3 (8)	0.7 (19)	0.4 (12)	2.9 (83)	1.7 (47)	6.8 (192)
	NS shift PT	0.4 (11)	0.1 (4)	0.1 (2)	0.0 (1)	0.0 (1)	0.4 (12)	0.2 (6)	1.3 (37)
	NS shift FT	1.7 (47)	0.3 (9)	0.1 (3)	0.2 (6)	0.2 (5)	1.3 (36)	0.7 (19)	4.4 (125)
	NS day PT	0.2 (7)	0.1 (3)	0.0 (0)	0.1 (3)	0.1 (4)	0.5 (13)	0.1 (3)	1.2 (33)
	NS day FT	6.0 (169)	0.9 (25)	0.1 (4)	1.2 (35)	1.5 (43)	5.4 (152)	2.2 (62)	17.4 (290)
	S PT	3.2 (90)	0.5 (13)	0.1 (3)	0.4 (12)	0.4 (11)	3.8 (108)	1.5 (41)	9.9 (278)
	S FT	20.1 (568)	3.0 (85)	0.6 (17)	2.7 (76)	2.0 (57)	22.4 (631)	8.2 (231)	59.0 (1,665)
	Total female	31.6 (892)	5.7 (162)	1.3 (37)	5.4 (152)	4.7 (133)	36.7 (135)	14.5 (409)	100.0 (2,820)

Source NKPS 2002–4; Authors' calculations

Note Sample couples, where at least one of partners is working. Total N = 2,820 couples

Abbreviations NW—not working or working less than 12 h a week; *PT*—part-time work (12–35 h a week); *FT*—full-time (more than 35 h a week); *NS shift*—nonstandard shifts (fixed evening, night, hours vary); *NS day*—nonstandard days (working in Saturdays/Sundays, day hours only); *S*—standard schedule (fixed day schedule, in weekdays only)

Table 1.5 Categorization of couples' working schedule and working hour combinations, %

Couples' work schedule combinations	%	N
Male NW; female NS shift/day PT/FT	2.2	62
Male NW; female S PT/FT	4.6	130
Male NS shift/day PT/FT; female NW	8.3	234
Male S PT/FT; female NW	23.3	658
Male/female NS shift/day PT/FT	5.2	148
Male NS shift PT/FT; female S PT/FT	2.6	73
Male NS day PT/FT; female S PT	5.9	165
Male NS day PT/FT; female S FT	2.3	65
Male S PT/FT; female NS shift PT/FT	4.2	118
Male S PT/FT; female NS day PT	3.1	88
Male S PT/FT; female NS day FT	2.4	68
Male S PT/FT: female S FT	9.6	272
Male S PT/FT; female S PT	26.2	739

Source NKPS 2002–4; Authors' calculations

Note Sample couples, where at least one of partners is working. Total N = 2,820 couples

Abbreviations NW—not working or working less than 12 h a week; *PT*—part-time work (12–35 h a week); *FT*—full-time (more than 35 h a week); *NS shift*—nonstandard shifts (fixed evening, night, hours vary); *NS day*—nonstandard days (working in Saturdays/Sundays, day hours only); *S*—standard schedule (fixed day schedule, in weekdays only)

1.6 The Case of The Netherlands

A distinct feature of previous research on nonstandard schedules and their consequences is that the majority of this research has been carried out in the United States. Increasingly addition country studies can be found (Venn 2004; Glorieux et al. 2008; Carriero et al. 2009; Hook and Wolfe 2013), but those remain scarce. The United States (as any other country) has to be seen, however, in its specific historical and institutional settings that shape most likely the role and meaning of these schedules in the society (Gornick and Meyers 2003; Mills and Blossfeld 2005) and therefore we do not know to what extent the findings are universal or rather a country-specific 'anomaly'. In other words, while individual consequences of working non-day hours can be treated as something rather universal—staying awake due to work duties during night shifts is physically exhausting for all those who do it (Jamal 2004)—social effects can be better understood by placing them into wider contextual surroundings. Working time regulation and enforcement, shop and/or office opening hours, availability and accessibility of (child)care institutions all shape the meaning, perceptions and practice of nonstandard work schedules in society, and respectively the consequences that working these days and hours can have on individuals and families. A focus on The Netherlands introduces a new case and adds a comparative perspective to this body of research. Moreover,

The Netherlands is an interesting case to study the phenomenon of nonstandard working schedules for several reasons. Firstly, it has a high prevalence of nonstandard schedules, which is in fact one of the highest in Europe. According to EU-LFS data, in 2010, 31.4 % of Dutch workers reported working usually in the evenings (see Fig. 1.2), which is the second highest share among the 28 European countries included in the analysis. The share of people in the Netherlands who reported usually working at night (8.1 % of working population) is not as high as in some other countries such as Slovakia (14 %) or the United Kingdom (10.9 %). Still, in comparative terms in Europe, The Netherlands ranks high. This is the case also when it comes to weekend work with 28.2 % of Dutch workers reporting that they usually worked on Saturdays and 17.1 % on Sundays. There are also countries where the share of weekend work is even more frequent, such as Greece (48 % of working population), Italy (37.3 %), Austria (31.7 %) or Spain (31.0 %), where workers report working regularly in the weekends. The Netherlands still clearly remains above the European average.

The high share of nonstandard work schedules in The Netherlands is not a recent phenomenon. The amount of nonstandard work schedules has remained rather stable over the last decades (Breedveld 2006). In Europe, countries show a general increase of nonstandard work schedules in recent years. The mean share of regular evening work reported by workers across the 27 European Union Member State countries increased from 17.2 % in 2002 to 19.8 % in 2011 (Eurostat 2013). For night work, the increase has been more modest, which is from 7.0 % in 2002 to 7.4 % in 2011. While the mean level of regular work on Saturdays has remained unchanged over past the decade in Europe, the share of regular Sunday work has increased from 11.7 % in 2002 to 13.6 % in 2011. Thus, the issue of nonstandard schedules is clearly important, yet it has been rarely empirically studied (for exceptions see for example Breedveld 1998; Tijdens 1998; Carriero et al. 2009).

Secondly, in the last decades, Dutch households have undergone dramatic changes with the traditional male single-earner family replaced by a one-and-half earner family model. This is due to an increasing number of women entering into paid employment (OECD 2002). The most dramatic change has been in households with young children, where the amount of partners employed (part-time or full-time) has doubled, and as of 2000 was two out of three families (CBS 2002). Thus, even when the proportion of work carried out outside standard working time has not changed over the last decades (Breedveld 2006), the practice of these schedules must have been increasing in absolute terms, and respectively more households are exposed to nonstandard schedules.

As illustrated by the broader European comparison (Fig. 1.3), especially in The Netherlands the share of nonstandard work schedules is higher among families with young children. Nonstandard work (working usually in the evenings and/or nights) is practiced among 33 % of workers with young children in the household and among 35 % of workers with older children in the household (data not shown in the table) compared to 29 % among workers without children. Other European

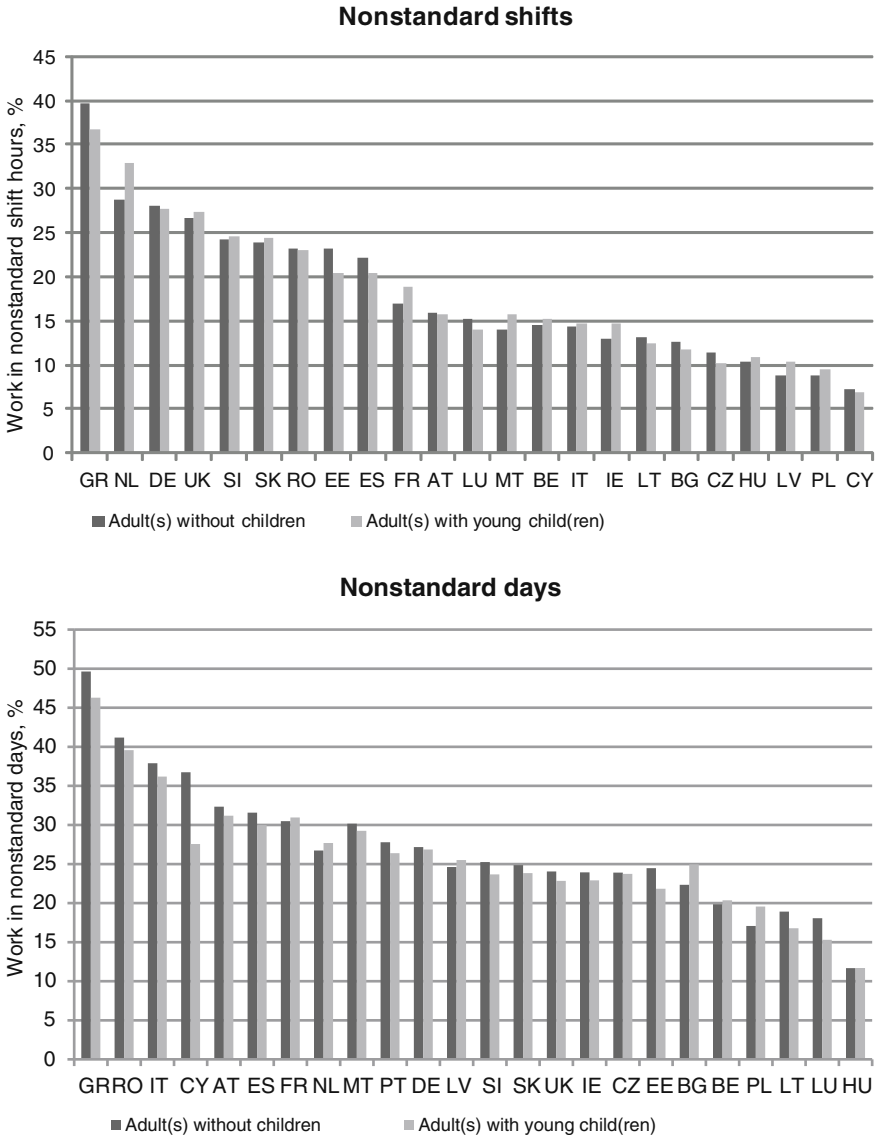

Fig. 1.3 Nonstandard work schedules across family types in Europe, %. *Source* European Labor Force Survey 2010, authors' calculations. *Note* Sample—working population, aged 15+

countries show a higher share of nonstandard work schedules among families with young children—France, Malta, Belgium, Ireland, Latvia, Hungary, Poland—but in no other country are the differences so big as in The Netherlands. In other countries, such as Estonia, Spain, Luxemburg, Lithuania, and Czech Republic, having young

children is associated with a lower risk of being employed in nonstandard shift work. Regarding nonstandard day work (work on Saturdays and/or Sundays), the differences between workers with young children and no children are as straightforward. Still, also here the share of weekend work in some countries is higher among families with children, such as in The Netherlands, France, Bulgaria, Belgium and Poland.

Thirdly, The Netherlands is one of the leading economies in terms of the use of part-time work (Wielers and Raven 2013). Not only is part-time work widely practiced (35 % of all workers, mostly women) (OECD 2009), part-timers and full-timers enjoy similar conditions of employment (Fouarge and Baaijens 2009). The latter makes working part-time an attractive choice, especially when combining work and family, but also when there is a necessity to work nonstandard schedules. Thus, studying the Dutch case adds new factors to our existing knowledge on the association between work schedules and number of work hours.

In the European comparison (see Fig. 1.4), there is also an association between the number of hours that are worked and when these hours are worked. In general, individuals employed in nonstandard work schedules (both shifts and days) tend to work more hours a week. Still, there are also countries where working nonstandard times is associated with fewer weekly working hours: Sweden, Norway, Denmark and Lithuania when it comes to shifts; and Lithuania, Romania, The Netherlands, Ireland, United Kingdom, Sweden, Norway, Denmark. The special case of The Netherlands is, however, that it has the lowest mean in working hours in general, being almost 7 h less than the average of the compared European countries. This has been attributed to the widespread influx of part-time work and a decline of work ethics (Wielers and Raven 2013). Thus, even when also experiencing the phenomenon of overwork related to nonstandard work schedules, Dutch workers are still employed in considerably fewer hours and are therefore likely less exposed to the negative consequences of nonstandard work schedules.

Finally, studying The Netherlands provides a rather different and challenging country case—both in terms of how the round-the-clock economy is perceived mentally as well as regulated by laws (Gornick and Meyers 2003). Recently there have been various attempts to bring more flexibility into the Dutch labor market, including reforms affecting working time regulations and nonstandard working times (Jacobs 2004; Fouarge and Baaijens 2004). Extending shop opening hours and the consideration of work during the weekends demonstrates that the role of nonstandard working times may become more pivotal within Dutch and European societies in general. Thus, the issue of the practice, location and impact of nonstandard schedules has gained relevance for Dutch society. At the same time, the working time regulation has remained rather rigid in The Netherlands, providing higher protection for those in nonstandard shifts in comparison to the respective laws in the United States for instance. Examining The Netherlands in comparison with the American case seems especially interesting and fruitful.

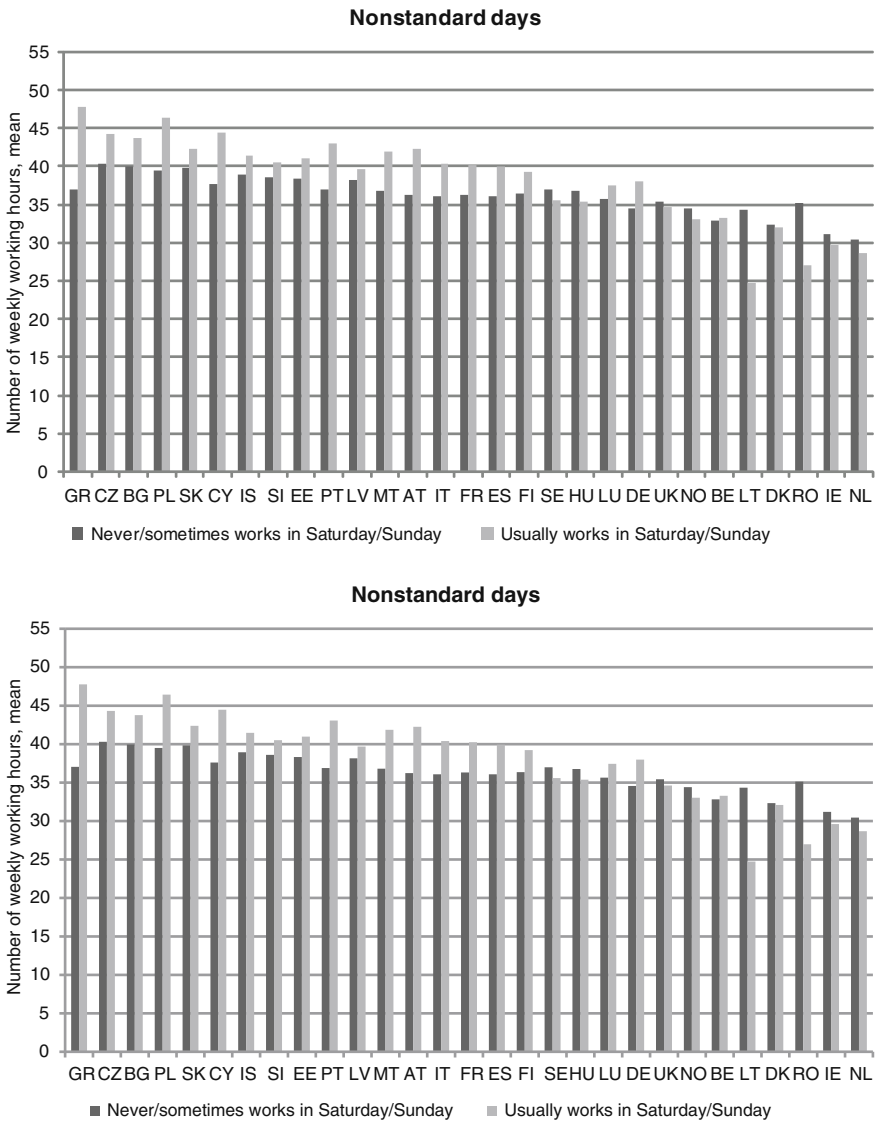

Fig. 1.4 Nonstandard work schedules and number of actual working hours, mean. *Source* European Labor Force Survey 2010, authors' calculations. *Note* Sample—working population, aged 15+

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Chapter 2
Where are Nonstandard Schedules Located and Who Works in them? The Role of Occupational, Household and Institutional Factors

Abstract Despite the arguments that the 24-hour-economy is on a ubiquitous and universal rise, the location of nonstandard schedules in the labor market and households is likely highly targeted. This chapter asks where this work is located and who is working in those shifts and days. Using the NKPS data for the Netherlands and the NSFH data for the United States, the findings show that nonstandard schedules often remain concentrated in specific occupations, suggesting that it is in fact largely occupational aspects underlying the main reasons for working these schedules. From the perspective of the household, the partner's schedule and the presence and age of children also determine the prevalence of individuals who work nonstandard schedules in the household. The effect of household aspects is highly filtered by country-specific institutional context, a vital yet often ignored contextual factor that shapes the prevalence, location and practice of nonstandard schedules.

Keywords Nonstandard schedules · Nonstandard schedules in the household · Occupational aspects · Effect of household aspects

2.1 Introduction

Despite the arguments that the 24-hour-economy is on a ubiquitous and universal rise, the location of nonstandard schedules in the labor market and households is likely highly targeted. Previous research has shown that work in nonstandard schedules is often shaped by occupational characteristics such as type of occupation or level of job (Presser 1984; Hamermesh 1996); but also by individual characteristics such as gender and education (Breedveld 1998), or by household characteristics such as presence of young children who need care (Presser 1988). Although it is often acknowledged that work in nonstandard schedules is affected by the abovementioned characteristics, little is actually known about the interdependence with these factors. The aim of the current chapter is, therefore, to study

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whether nonstandard schedules have universally penetrated all realms of society and the labor market by analyzing the characteristics and composition of nonstandard schedule work. Our central research aims are to determine *where these schedules are located, who is engaged in them and what the interplay is between the two.* As the engagement in nonstandard work is expected to be conditioned both by occupational and household characteristics (Presser 1983; Hamermesh 1996), a special focus here is the interplay between these two domains.

Next to occupational and household characteristics, country contextual matters such as work-time regulation and work-family policies also potentially shape the 'selection' of workers and families into these schedules. For example, in the U.S. the association between working nonstandard schedules and having children in the household could plausibly be due to limited access to public childcare (Gornick and Meyers 2003; Hook and Wolfe 2013). Thus, another research question in this chapter asks *whether the composition of nonstandard schedules is universal or largely country-specific.* In order to do so, the chapter takes a comparative perspective and introduces a comparison between The Netherlands and the United States. The Netherlands and the United States form two disparate situations: both of the countries show a relatively high prevalence of nonstandard schedule work, but represent quite different labor market and welfare regime types, namely in relation to work time regulation as well as work-family policies (Esping-Andersen 1990). The latter allows us to assess the role of country (institutional) context on prevalence and location of nonstandard schedules.

2.2 Location of Nonstandard Schedules

2.2.1 Labor Demand Perspective

The theoretical arguments regarding the prevalence and location of nonstandard schedules can be broadly organized from the two perspectives of labor demand and labor supply. The labor demand perspective focuses on firms and their time-dependent demand for work (Hamermesh 1999), where production sometimes needs to be carried out in nonstandard times. For example, medical services need to be available round-the-clock and therefore a respectively higher prevalence of nonstandard schedule work would be expected among nurses and doctors (Mills 2004). Thus, it can be expected that *one central characteristic in explaining who is working nonstandard schedules is the occupation of the employee.*

An important aspect of the labor demand approach is that it is based on the general assumption that the majority of the workers view work during nonstandard time as unattractive (Hamermesh 1996) and one needs to find ways to develop incentives to 'attract' the workers to engage in these schedules. This often requires a motivation or compensation mechanism, such as increased pay and partially answers why some workers may opt for these schedules. For example, for workers from lower level positions and lower earnings it might be a way to increase their

earnings by the wage-compensation mechanisms that working these schedules may provide. At the same time, these workers may end up working disproportionately more nonstandard schedules also due to less bargaining power to get out of these unattractive schedules. Conversely, workers that have a greater capacity to earn higher incomes can negotiate better working conditions or better compensation when working nonstandard schedules. Therefore, it can be expected that *nonstandard working schedules will be worked disproportionally more in lower level occupations*, at the same time work in *nonstandard days and hours is related to increased pay benefits.*

Another feature from the labor demand perspective relates to the number of hours worked (Presser 2003; Venn 2004). Working fewer hours when engaged in nonstandard schedules could work as a 'buffer' mechanism against the negative physical, psychological and social effects related to work in nonstandard schedules. Thus it would be a plausible expectation that nonstandard schedules and part-time work combine, in particular in case part-time work does not create any reduction of work-related benefits or if the losses would not exceed the gains of working fewer hours. However, many U.S. labor market analysts regard part-time work as marginal employment and an indicator of 'bad jobs' (Kalleberg et al. 2000). If so, the negative association between part-time work and work in nonstandard schedules can simply indicate the lower bargaining power of workers in these jobs. Regardless of the underlying mechanism, we can expect *a significant positive relationship between working nonstandard schedules and part-time working hours*.

2.2.2 *Labor Supply Perspective*

From the labor supply perspective, workers' decisions about working times are derived from their (household) consumption needs and preferences. According to Becker (1965), household consumption is itself a production process involving inputs of purchased goods, services and household time, while time allocation is the outcome of this value maximization process. Winston (1982) extends this approach by adding a dynamic time perspective, maintaining that value maximization of household time is done at each point of the day and the household chooses to undertake the household production/work activity that has the highest value for them at that particular time. As a result, work takes place when the value of other activities is less than the value of the work.

The decision of individuals within a particular household to work nonstandard schedules is often shaped by household composition (Presser 1983). In general, *having a partner should reduce the incidence of employment in nonstandard schedules* since singles would be less impacted by the household situation. However, it may also increase the nonstandard schedule work. Namely, when one member of the couple is working nonstandard times, they may want increase joint couple time by synchronizing their schedules (Lesnard 2008; Mills and Täht 2010; Carriero et al. 2009), which could entail both moving to flexible nonstandard

schedule work. Therefore it is expected that *one partner working nonstandard times increases the incidence of the other partner being employed in nonstandard schedule work.*

The association with household composition may change when taking into account the presence and age of children in the household (Presser 1983). Again, from the household utility maximization perspective, working nonstandard times would create a time conflict between parents' and children's leisure time (time out of daycare/school and work) and therefore the *presence of children in the household should decrease parents' nonstandard schedule work*. However, the opposite effect is also plausible: nonstandard work schedules allow parents to organize childcare, especially when there are young children in the household (Wight et al. 2008) and no sufficient (public) child care facilities are available. In other words, while one of the parents is working (nonstandard schedules), the other parent takes care of the children (Perry-Jenkins et al. 2007; Täht and Mills 2012). Therefore we also introduce an alternative hypothesis which tests whether *the presence of young children in the household increases the incidence of nonstandard schedule work.*

2.2.3 Institutional Context: Cross-Country Comparison

Although nonstandard schedules appear to be shaped by either occupational requirements or household composition, the actual decision to become employed in nonstandard schedules is often made in equilibrium between these two domains (Venn 2004; Presser 2003; Hamermesh 1996). Depending on the institutional context, one of the domains can dominate the other. As Mills and Blossfeld (2003) have argued, institutions and national structures have a tendency to act as an intervening variable between macro level structures and the responses of individual actors on the micro level. In other words, country-specific institutions and historically grown social structures can determine the prevalence, location and self-selection of persons into nonstandard schedules both in the occupational and family sphere.

An appropriate approach to examine cross-national differences need to rely on a systematic consideration of national institutional settings and the interplay of different domestic institutions. Firstly, the working time regulations such as general regulations and enforcement of working times, presence of various compensation mechanisms for working nonstandard schedules, and availability of work-time flexibility such as part-time work can be shaping the prevalence and location of nonstandard schedules in society. Secondly, work-family policies such as availability and costs of (public) childcare, and quality of these care facilities can have a relevant impact on workers and families preference to carry all or some of their working time during nonstandard days and hours.

2.2.4 Working Time Regulation

In relation to working time regulations, The Netherlands and the United States represent markedly different cases (see also Table 2.1). The Dutch case represents an institutional context where nonstandard working time is rather restricted and where the protection and rights of workers who work these schedules are rather high.

Table 2.1 Summary of working time regulations and work-family policies shaping nonstandard work schedules in The Netherlands and the United States

	Netherlands	United States
Working time regulations		
Primary mechanisms for working time regulation	• European and national laws;	• National labor law with some supplementation by state laws.
	• Collective agreements between employers, workers' councils, unions and employees	
Compensation for nonstandard working time	• By law no direct compensation in salary;	• By law no direct compensation in salary;
	• In practice time/salary compensation stated by collective agreements	• In practice often premiums paid.
Part-time employment	• Rights and benefits equal to full-time workers;	• No legal protection with regard to pay equity, benefits, job conditions
	• Frequent practice: 35 % of workers (15 % of men, 60 % of women)	• Moderate practice: 13 % of workers (8 % of men, 19 % of women)
Work-family policies		
Institutional arrangements and costs for childcare	• Childcare decentralized. Tripartite contribution: municipalities, parents, employers.	• Federal and state early education programs. Mostly target children at economic or educational risk
	• Recovery of child-care costs target of collective agreements; costs tested for household income and number of children in childcare.	• High prevalence of private child-care facilities with high financial costs.
		• Some subsidies and tax policies.
*Quality of childcare facilities*Childcare facilities	• High quality of public childcare facilities	• Poor quality of public child care facilities.
Availability of care facilities	• Childcare facilities provide full-day care opportunities; pre-school mostly part-day; no continuous school week for elementary level.	• Public programs often part-day and part-year; instructional school day shorter than parents' working day.

In the United States, we see the opposite case where the regulation of nonstandard work schedule is low and those who are engaged in them have relatively less legal protection.

In The Netherlands, working time is primarily regulated by European and national laws such as the Working Time Law, Shop Opening Law, and other related regulations. Despite the several legislative attempts to loosen the constraints of working times, the regulation has remained relatively strict. The Working Time Act (introduced in 1996) lifted many old restrictions on work during nonstandard hours, but also stipulated various new regulations, aimed at protecting employees against the so-called 'unhealthy' working times (Jacobs 2004). In addition, there are various collective agreements between employers, workers' councils, unions and employees regarding actual working times and related benefits (Fouarge and Baaijens 2009). For example, although the Dutch Working Time Act refrains from prescribing compensation in time or salary for the performance of night work, in practice much of it has been regulated by collective agreements. Meanwhile, the coverage by collective agreements is high and the agreements are also often extended to those who are not covered.

In the United States, employment is regulated by the national labor law Fair Labor Standards Act. Working time is also regulated by state laws operating in conjunction with a fairly limited collective-bargaining system (Gornick and Meyers 2003). Both the restrictions on working time as well as collective bargaining power on working times are rather low. Also, U.S. labor law does not directly specify any compensation or benefits for workers in nonstandard shifts (Hamermesh 1996). Contrary to the Dutch case, the role of collective agreements and power of unions in relation to working times is comparatively marginal. Empirical studies show that in practice there is a slightly higher wage premium for shift work, but these characterize rather a few occupational groups only (Kostiuk 1990). Regarding these differences, in the U.S., nonstandard working schedules are expected to be relatively worse labor market positions than in The Netherlands. We therefore anticipate that the *concentration of nonstandard schedules in lower level positions will be more pronounced in the U.S. than in The Netherlands,* at the same time *the pay incentives related to nonstandard schedules are expected to be stronger in The Netherlands than in the U.S.*

Differences in the relationship of institutions could be expected also regarding the work-time flexibility. Over the last decades, Dutch labor market policy has contributed to the prevalence of part-time employment by improving the legal position of part-timers. As a result, in The Netherlands, part- and full-time employees enjoy similar employment conditions (Fouarge and Baaijens 2009), and part-time work is widespread (15 % of men, 60 % of women) and considered a right (OECD 2009a; Wielers and Raven 2013). In the U.S., by contrast, the law is silent on issues of compensation and benefits such as pay equity or job conditions for part-timers. In fact, American workers pay a high income- and benefit-penalty for reducing their hours (OECD 2002). In this respect, part-time employment is still often a form of marginal employment (Visser 2002), and less prominent (8 % of men, 19 % of women). Therefore, it is expected that *the positive association*

between part-time work and work in nonstandard schedules is stronger in The Netherlands than in the U.S.

2.2.5 Work-Family Policies and Reconciliation

In relation to work-family policies and reconciliation, in The Netherlands extensive childcare facilities are a fairly recent development. In the beginning of 1990s it was still a country offering relatively meager organized childcare of any kind, with only 2 % of Dutch children under the age of four cared for in childcare centers (Gustaffson and Stafford 1994). In order to meet the rising demand for childcare, the Dutch government started stimulating the expansion of these facilities. Employers were awarded several fiscal subsidies to sponsor centers for young children, and the recovery of child-care costs were often the target of collective agreements (Schaeps et al. 2002). Moreover, as of 2005, childcare costs were subsidized by the government and adjusted in relation to household income and number of children in childcare facilities (Immervoll and Barber 2006).

In the U.S., the development of childcare facilities has a longer history, but the role of government and unions in supporting parents' dual responsibilities of home and workplace is comparatively minimal. The government finances some care through federal and state early education programs, which operate, however, often on a part-day and part-year basis (Gornick and Meyers 2003). Moreover, most state pre-kindergarten programs in the U.S. are targeted at children in economic or educational risk groups and the subsidies are available only for very low income families. Therefore, most non-parental care arrangements in the U.S. are market-based both in provision and financing, imposing steep financial costs on families (Immervoll and Barber 2006).

Despite the increasing accessibility of formal childcare facilities, the actual use of public childcare facilities in The Netherlands has remained modest. Dutch children also spend considerably less time in the day-care centers. In 2006, the average weekly hours in childcare among children under 3 years of age was 17 h in The Netherlands and more than 30 h in the U.S. (OECD 2009b). At the same time, the Dutch government has aimed to ensure childcare of a guaranteed high quality and reliability, which is not the case for the U.S. (Gornick and Meyers 2003; Helburn and Bergmann 2002). Thus, the low childcare use in The Netherlands cannot be explained by quality, but the reasons appear to be, however, cultural. Parents are expected to raise their children, with negative connotations for mothers who combine having children and (full-time) work (Portegijs et al. 2006). Mills et al. (2013) recently found a clear association between higher levels of disapproval of women working full-time with lower levels of childcare enrolment and employment across Europe. Also, while day-care facilities for pre-school aged children in The Netherlands operate during standard working hours and provide full-day care (Immervoll and Barber 2006), at the elementary school level, there is often no continuous school week and parents have to find additional childcare options.

Moreover, in The Netherlands, the one-and-half earner model is still one in which couples are able to sustain, whereas in the U.S. dual-earners are often essential to maintain the household. Thus, in The Netherlands, the necessity to use nonstandard schedules in order to arrange childcare can be considered as modest, while in the U.S. parents may be more in need to switch to (*de*synchronized) nonstandard schedules in order to arrange childcare. Therefore it is expected that the *predicted effect of the presence and age of children on the incidence of nonstandard schedule work is more pronounced in the U.S.*

Regarding the interplay between household and occupational aspects in working nonstandard schedules, the Dutch institutional context provides more opportunities for these schedules to be an individual or household choice as opposed to a forced need. On the contrary, in the U.S. the low regulation and lack of protection when working these schedules makes them more likely to be a forced need for more vulnerable labor market groups, while restrictions in the access to child-care facilities may make the families more likely to opt for working these schedules. Therefore, *although it is expected that in general working nonstandard schedules are driven by occupational rather than household characteristics, due to the institutional circumstances in the U.S. the role of household characteristics in working nonstandard schedules will be more pronounced.*

2.3 Data and Method

2.3.1 Data

The Dutch data uses the first wave of the NKPS (Netherlands Kinship Family Study) (Dykstra et al. 2004), and the American data the first wave of NSFH (National Survey of Families and Households) (Sweet et al. 1988). The sub-sample for the current study is the working age (18–64 years old) population active in the labor market (working at least 12 h a week). In the Dutch case, this leaves us with 4,344 individuals (out of the original sample of N = 8,161) and in the United States case with 7,801 individuals (out of the original sample of N = 13,007). The detailed information on working days and hours, which forms the origin of the working schedule variable, is the biggest source of missing cases in both countries. In the Dutch case, the data loss is 5 % (the working schedule information is available for 4,133 individuals); in the American data, the data loss is 6 % (the working schedule information is available in 7,344). Including co-residential partner's information reduces valid cases for the couple-analysis even more: there are 3,734 cases left in the Dutch data and 6,594 cases remain in the U.S. data. For more details on the data see Table 2.7, Appendix.

2.3.2 Measures

The two dependent variables in the analysis are the *nonstandard schedule* (for details see Chap. 1) and respondent's *monthly earnings* transformed to a natural logarithm. The variable of monthly earnings also includes self-employed persons; however the effect of self-employment is controlled in all models.

For independent variables (see Appendix, Table 2.7), respondents' *occupation* is measured by using ISCO-88 coding scheme. ISCO-88 coding scheme for the U.S. data was derived from CPS codes, which are not fully compatible. In particular, instead of differentiating various types of managerial jobs (in ISCO-88 groups 1200 and 1300), in the CPS, manager's occupation is coded without a reference to the area where the position is worked. However, as among the managers of wholesale, retail trade, restaurants and hotels, the prevalence of nonstandard schedules is generally very high and relevant for current study, for the U.S. data, this group has been 'filtered' out by using additional information from the industry. This allows us to make the two country divisions more comparable in terms of the content, even though the derived distribution under-represents the share of managerial occupations in the U.S. The *number of working hours* is measured by weekly hours, where the value zero refers to not working or working less than 12 h a week. The highest achieved *education* of the respondent is measured by years spent in education. The respondent's *socio-economic status* is measured using the International Socio-Economic Index (ISEI) (Ganzeboom et al. 1992) and *age* is measured in full years. The household characteristics of *partnership status* refer to the presence of a co-residential partner, regardless of whether it is a married or cohabiting union, against being single/separated/divorced/widowed. The presence and age of children refers to the age of the youngest child in the household and the mean *household income* variable refers to the mean of respondent's and co-residential partner's income from earnings and other sources.

2.3.3 Analytical Techniques

For grouping the occupations, the most detailed ISCO-88 categories were used. At the original 4-digit level division, occupations small in size and similar in content and share of nonstandard schedules were aggregated step by step. The general criterion for final group size was a minimum of 50 cases. In the final grouping there are occupational groups that range from being the lowest at 3-digit level precision (for example nursing and midwifery associate professionals) to the highest of a 2-digit level precision (for example teaching professionals).

The analysis of the relationship between occupational characteristics and schedules on earnings uses OLS regression. For estimating the effect of occupational and household characteristics on working different types of nonstandard schedules, logistic regression models are used. Due to the small number of cases,

evening, night and varying hour shifts are collapsed into one category in most of the inferential analyses. Country differences are estimated by interacting the main effects with the country variable. Sheaf coefficients are used to estimate the joint effect of several occupational or household characteristics on working nonstandard schedules (Heise 1972). A sheaf coefficient assumes that a block of variables influence the dependent variable through a latent variable. A sheaf coefficient displays the effect of the latent variable and the effect of the observed variables on the latent variable. The assumption that the effect of a block of variables occurs through a latent variable is not a testable constraint, rather it is a different way of presenting the results from the original model (here a logistic regression model). Since the effects of the latent variables are presented in a standardized way (standard deviation = 1), the effects are easier to compare between each other (for more information on Stata program 'sheafcoef' see Buis 2009).

2.4 Results

2.4.1 Characteristics of Nonstandard Schedules

Using the NKPS data (Table 2.2), in The Netherlands about every fourth (26.9 %) labor market participant is regularly engaged in nonstandard working schedules. According to the NSFH data, in the U.S. about two out of five workers (39.6 %) are working in nonstandard times, which corresponds to previous findings (Presser 2003). These descriptive findings also confirm that in the U.S., the prevalence of nonstandard schedules in 1990 was already higher than in The Netherlands more than a decade later. In both countries, nonstandard schedules are more widespread among the male working population. In The Netherlands, the difference between genders is relatively small (27.1 % of work in nonstandard schedules for men and 26.7 % for women), respectively while in the U.S., the gender difference is more pronounced (43.7 % for men and 35.7 % for women). Turning to schedule types, weekend work tends to be more predominant then shift work with 63 % of nonstandard schedules in The Netherlands and 60.6 % in the U.S. consisting of weekend work.

As hypothesized, nonstandard schedules are often worked in part-time positions. However, the effect is not consistent across all schedule types, but characterizes mostly evening and sometimes night shifts. In The Netherlands, evening shift employees work 5.8 h less a week and night shifts workers 2.9 h less a week than standard schedule workers. In the U.S., employees who work in the evenings work 1.6 h less a week than standard schedule workers. Thus, in support of the country hypothesis, hour reduction is stronger in the Dutch case, holding for both men and women. Moreover, in the U.S., working in shifts with varying hours even significantly increases the number of average weekly working hours. These workers are employed around 20 h more a week than standard schedule workers. Varying

Table 2.2 Working schedules and number of weekly working hours by schedule type in The Netherlands and the United States; % and OLS regression coefficients

	Netherlands			United States		
	All	Men	Women	All	Men	Women
Schedule type (%)	100.0	100.0	100.0	100.0	100.0	100.0
Standard schedule						
Day shift, weekdays	73.1	72.9	73.3	60.4	56.3	64.3
Nonstandard shifts						
Fixed evening shift	4.9	4.2	5.5	9.0	8.9	9.0
Fixed night shift	1.3	0.9	1.7	3.9	4.5	3.4
Hours vary shift	3.0	2.1	3.9	2.2	2.3	2.1
Nonstandard days						
Weekend day	17.7	20.0	15.5	24.5	28.0	21.2
Mean nr of working hours by schedule type (hrs)						
Standard schedule						
Day shift, weekdays (Ref)	35.5	41.3	30.1	41.3	43.5	39.4
Nonstandard shifts						
Fixed evening shift	−5.8**	− 4.8**	−5.2**	−1.6**	−0.6	−2.8**
Fixed night shift	−2.9+	−6.3**	+1.4	+0.2	−0.6	+0.3
Hours vary shift	+0.8	+4.0*	+1.8	+20.0**	+23.8**	+15.5**
Nonstandard days						
Weekend day	+8.6**	+9.6**	+5.8**	+8.9**	+11.8**	+4.2**
Total (N)	4,133	1,983	2,150	7,344	3,602	3,742

Data Netherlands—NKPS, 1st wave, 2002–2004; United States—NSFH, 1st wave, 1987–1988; Author's calculations
Notes Sample—18–64 years old population, works at least 12 h a week; NL: N = 4,344; U.S. N = 7,801
Sig ** p < .01; * p < .05; + p < .10

hours' shifts are disproportionally more often worked among drivers, construction workers, some office clerks, and restaurant and shop managers. Thus, particularly in the U.S., working in (varying hours) shifts might be attributed to relatively lower level jobs with potentially lower wages, prompting these workers to engage in more hours of work to earn a decent income.

Weekend workers likewise have a higher number of weekly working hours than those employed in standard schedules, observed in both countries (8.6 in The Netherlands and 8.9 h more in the U.S. compared to those in standard schedules). The occupational groups who stand out in this category are general managers of shops and restaurants, various professionals (architects, engineers) and associate professionals (technicians, finances and sales, business service agents), farmers, and drivers. Thus, working in the weekends seems to be more of a white-collar and higher level occupation and male phenomenon than shift work, with a higher number of hours often related to overwork.

The analysis on the association between schedules and earnings (Table 2.3) tests the idea of differences between schedule types from a different angle. The underlying hypothesis here was that nonstandard schedules are related to compensation mechanisms such as higher pay, which are also likely to vary across countries. The main effect of schedule type on wage earnings (Model 1 of Table 2.3) shows that working nonstandard schedules—more precisely evenings and varying hours' shift, (and in the U.S. also weekend days) is negatively related to wages, meaning that these workers earn significantly less than standard day workers. The effect becomes somewhat weaker or disappears when controlling for age, education and socioeconomic status (Model 2 of Table 2.3).

The crucial explanatory aspect to interpret the pay difference is, however, the number of working hours (Model 3). Once controlling for the number of hours, working night shifts means a significant salary bonus of around 34 % in The Netherlands and 14 % in the U.S. It can be that as due to the data limitations (the data does not allow us to control whether one works in rotating shifts), the (positive) effect of nonstandard shifts on wages is somewhat underestimated. In relation to earnings in nonstandard schedules, it is not an entirely homogenous phenomenon. For those employed in schedules other than night shifts, there is either no difference compared to those who work in standard schedules or the gap is even negative. For The Netherlands, those who work evening shifts earn about 13 % less than those working standard day schedules. In the U.S. the contrast is even bigger with all nonstandard schedule workers (with the exception of night workers) earning significantly less than standard schedule workers. Thus, the findings support the country difference hypothesis, which predicted a stronger positive association with wage earnings in The Netherlands than in the U.S.

Table 2.3 Earnings[a] across working schedules in The Netherlands and the United States, OLS regression coefficients

	Model 1			Model 2			Model 3		
	Netherlands	United States	Dif	Netherlands	United States	Dif	Netherlands	United States	Dif
Schedule type (Ref–standard day)									
Fixed evening shift	−0.52**	−0.34**	*	−0.31**	−0.14**	*	−0.12*	−0.11**	
Fixed night shift	−0.15	−0.07		0.12	0.14*		0.29**	0.13**	
Hours vary shift	−0.19*	−0.30**		−0.03	−0.19*		0.06	−0.49**	**
Weekend day	0.04	−0.07**	*	0.08*	0.02		−0.02	−0.18**	**
Individual characteristics									
Age				0.01**	0.02**	**	0.01**	0.02**	**
Education				0.05**	0.09**	**	0.04**	0.09**	**
Socioeconomic status				0.01**	0.01**		0.01**	0.01**	
Occupational characteristics									
Number of hours							0.03**	0.02**	**
Self-employment							−0.10*	−0.00	+
Constant	7.23**	7.17**		5.61**	4.98**		4.72**	4.02**	
R2	0.02	0.01		0.12	0.16		0.23	0.25	
Total (N)	3,851	6,301		3,851	6,301		3,851	6,301	

Data Netherlands—NKPS, 1st wave, 2002–2004; US—NSFH, 1st wave, 1987–1988; Authors' calculations

Notes Sample 18–64 years old population, working at least 12 h a week (*NL* N = 4,344; *US* N = 7,801). [a]Natural logarithm from monthly labor income, including self-employment. Dif—Difference; refers to statistical significance test for country interactions

Sig ** p < .01; * p < .05; + p < .10

2.4.2 Where Are Nonstandard Schedules Located?

Nonstandard work schedules seems to be systematically related to a somewhat lower occupational status, which supports our previous expectations. A descriptive analysis of the mean socio-economic status of occupations across dominantly worked schedule types shows that the status is the highest among fixed day workers (46 in the U.S. and 53 in The Netherlands on the ISEI scale), followed closely by weekend day workers (mean ISEI of 43 for the U.S. and 50 for The Netherlands). Those working nonstandard shifts (evening, night, varying hours) seem to be, in turn, in lower positions compared to those engaged in weekend day work only. Here the socioeconomic status is the highest for those in varying hours (mean of 41 for U.S. and 42 for The Netherlands on the ISEI scale), followed by evening shifts (mean ISEI of 38 for the U.S. and 42 for The Netherlands) and the lowest for night shift workers (mean ISEI of 36 for the U.S. and 37 for The Netherlands).

A more detailed examination of specific occupations shows that most nonstandard schedules seem to be concentrated in specific occupations and sectors which in turn form a rather uniform 'occupational structure' of nonstandard schedule work. As shown in Table 2.4, in both country cases, nonstandard schedules tend to be strongly overrepresented in housekeeping and restaurant service workers such as cooks, waiters, bartenders (44.7 % of shift work in Dutch case and 38.3 % in U.S. case); personal and protective service workers (31.0 % of shift work in Dutch case and 16.7 % in U.S. case); and, among customer service clerks such as cashiers, receptionists (18.7 % of shift work and 21.3 % weekend work in Dutch case; 27.2 % of shift work and 26.4 % of weekend work in U.S. case). Also among nursing and midwifery professionals, the prevalence of nonstandard schedules is high in both countries (37.5 % of shift work and 22.5 % of weekend work for the Dutch case; 37.8 % of shift work and 27.9 % of weekend work for the U.S. case). A higher concentration of nonstandard schedules can also be observed among stationary plant and machine operators (22.0 % of shift work in The Netherlands and 22.7 % in the U.S.), drivers and mobile plant operators (25.6 % of weekend work in The Netherlands and 26.5 % in the U.S.). Once again a distinct difference between nonstandard shifts and days emerges. For example, managers of small enterprises (in wholesale and restaurants/hotels) show a high prevalence of weekend work (33.1 % in The Netherlands and 52.2 % in the U.S.), but a small share in nonstandard shifts. Also models, salespersons and demonstrators show a high prevalence of weekend work, but little shift work. The same is the case for agricultural workers.

The next analysis (see Table 2.5) shows that the concentration of schedules into specific jobs only is clearer for the nonstandard shift occupations, whereas weekend work is more diffuse. Originally most major groups show a significant difference from associate professionals (a group with the most stable share of nonstandard schedules) in terms of prevalence of nonstandard schedules (main model with main occupational groups not shown here, but available upon request). After controlling for the effect of the five most prominent nonstandard shift occupations (chosen

Table 2.4 Share of nonstandard schedules across various occupational groups[a] in The Netherlands and the United States

ISCO88 code	Sub-major or minor occupation group	Netherlands			United States			Remarks[e]
		Occupational group[b]	Nonstandard schedules in group (%)		Occupational group[b]	Nonstandard schedules in group (%)		
		N (%)	Shift[c]	Day[d]	N (%)	Shift[c]	Day[d]	
1100–1239	Legislators & senior officials; corporate managers	286 (7.0)	3.8	25.9	255 (3.5)	3.5	18.0	Restaurant, hotel managers
1300–1319 (ex.1221)	Managers of small enterprises (excl. managers in agriculture, fishing	154 (3.8)	6.5	33.1	205 (2.8)	8.3	52.2	Restaurant, hotel, shop managers
2100–2149	Physical, mathematical and engineering science professionals	303 (7.4)	2.0	12.5	225 (3.1)	2.7	13.3	Physicists, chemists; Architects, engineers
2200–2230	Life science and health professionals	92 (2.2)	17.4	21.7	181 (2.5)	36.5	26.5	Doctors
2300–2359	Teaching professionals	308 (7.5)	2.9	16.6	315 (4.3)	3.2	13.7	Teachers in higher education
2400–2470	Other professionals	487 (11.9)	4.5	14.6	351 (4.8)	7.1	22.8	Artists; Religious professionals
3100–3152	Physical and engineering science associate professionals	175 (4.3)	5.1	12.6	196 (2.7)	17.9	19.4	Photographers; Pilots
3200–3334	Life science and health assoc. professionals (exc. Nurses); Teaching assoc. professionals	139 (3.4)	4.3	10.1	147 (2.0)	11.6	22.4	Health professionals
3230–3232	Nursing and midwifery associate professionals	240 (5.8)	37.5	22.5	172 (2.4)	37.8	27.9	Nurses, midwives
3400–3480	Other associate professionals	406 (9.9)	5.2	8.9	432 (5.9)	4.6	25.2	Musicians; Athletes; Decorators/designers
4100–4190	Office clerks	379 (9.2)	1.8	7.4	878 (12.1)	6.8	12.1	Mail carriers and sorting clerks
4200–4223	Customer services clerks	75 (1.8)	18.7	21.3	235 (3.2)	27.2	26.4	Cashiers; Receptionists

(continued)

Table 2.4 (continued)

ISCO88 code	Sub-major or minor occupation group	Netherlands			United States			Remarks[e]
		Occupational group[b]	Nonstandard schedules in group (%)		Occupational group[b]	Nonstandard schedules in group (%)		
		N (%)	Shift[c]	Day[d]	N (%)	Shift[c]	Day[d]	
5100–5169 (ex.5120-30)	Personal and protective services workers (ex. House-keeping & restaurant; Personal care)	58 (1.4)	31.0	32.8	684 (9.4)	16.7	34.9	Stewards; Police; Hairdressers; Guards
5120–5123	Housekeeping & restaurant services workers	76 (1.9)	44.7	19.7	243 (3.3)	38.3	32.9	Cooks; Waiters & bartenders;
5130–5139	Personal care and related worker	118 (2.9)	13.6	17.8	119 (1.6)	19.3	20.2	Institution-based care workers
5200–5220	Models, salespersons and demonstrators	155 (3.8)	6.5	42.6	210 (2.9)	17.1	44.8	Salespersons
6100–6154	Skilled agric./fishery workers (in. 1221, 1311 Managers of small enterprises in agric., fishing)	77 (1.9)	3.9	58.4	49 (0.7)	8.2	73.5	Dairy & live-stock producers
7100–7143	Extraction & building trades workers	105 (2.6)	0.0	10.5	226 (3.1)	3.1	29.2	Builders
7200–7442	Metal, machinery etc. workers; Precision, handicraft, printing, etc. & other workers;	142 (3.5)	8.5	17.6	624 (8.6)	15.1	24.2	Bakers; Butchers, fishmongers
8100–8290	Stationary plant and related operators; Machine operators and assemblers	109 (2.7)	22.0	11.0	551 (7.6)	22.7	16.7	
8300–8340	Drivers and mobile-plant operators	90 (2.2)	15.6	25.6	264 (3.6)	18.2	26.5	Bus & tram drivers; Car, taxi, van drivers
9100–9330 (ex. 9130)	Sales/services elem. occ-s (ex. dom-c cleaners); Agriculture; Mining, construction, transport	81 (2.0)	19.8	6.2	535 (7.3)	24.1	24.7	Assembling laborers; Transport laborers;

(continued)

Table 2.4 (continued)

ISCO88 code	Sub-major or minor occupation group	Netherlands			United States			Remarks[e]
		Occupational group[b]	Nonstandard schedules in group (%)		Occupational group[b]	Nonstandard schedules in group (%)		
		N (%)	Shift[c]	Day[d]	N (%)	Shift[c]	Day[d]	
9130–9133	Domestic etc. helpers cleaners & launderers	49 (1.2)	26.5	16.3	186 (2.6)	19.9	30.1	Helpers & cleaners in establishment
Total	(N)	4,104	381	725	7,283	1,104	1,790	
	(%)	(100.0)	9.3	17.7	(100.0)	15.2	24.6	

Data Netherlands—NKPS, 1st wave, 2002–2004; US—NSFH, 1st wave, 1987–1988. Authors' calculations

Notes Sample 18–64 years old population, works at least 12 h a week (*NL* N = 4,344; *US* N = 7,801). [a]Measured via aggregated ISCO-88 occupational groups. The main categories are the sub-major groups of ISCO-88. Where the share of nonstandard schedules in a minor group differs from the respective sub-major group, and the size of minor group over 50 cases, the minor groups is treated as separate category. [b]Occupational distribution; [c]Incl. 'Fixed evening', 'Fixed night' or 'Hours vary' shifts. [d]Incl. 'Fixed day, weekend work. [e]Description of some minor occupation groups within sub-major groups that are represented in the category and where the share of nonstandard schedule workers is higher than in the group average

Table 2.5 Nonstandard schedule work explained by occupational, household and individual characteristics in The Netherlands and the U.S., logistic regression coefficients, odds ratios and sheaf coefficients

	Nonstandard shifts[a]						Nonstandard days[b]					
	Model 1			Model 2			Model 3			Model 4		
	Netherlands	United States	Dif	Netherlands	United States	Dif	Netherlands	United States	Dif	Netherlands	United States	Dif
Main occupational category (Ref—Professionals)												
Managers	0.09	−0.73**	*	−0.00	−0.76**	+	0.59**	0.02	*	0.74**	0.07	*
Associated professionals	0.06	−0.22		−0.02	−0.16		−0.48**	0.16	**	−0.37*	0.16	*
Clerks	−0.98*	−0.55**		−1.10*	−0.56**		−0.49*	−0.33**		−0.52*	−0.30*	
Service and sales workers	1.10**	0.46**	*	0.90**	0.45**		0.48**	0.61**		0.55*	0.61**	
Agriculture	−0.13	−0.52		−0.11	−0.66		1.92**	2.20**		1.89**	2.24**	
Craft trades workers	0.08	−0.12		−0.10	−0.18		−0.24	0.08		−0.14	0.08	
Plant & machine operators	1.36**	.39+	*	1.04**	0.42+		−0.51	−0.36*		−0.87+	−0.38*	
Elementary occupations	1.59**	0.72**	*	1.28**	0.63**		−1.14*	0.05	*	−1.17*	−0.01	*
Nonstandard shift jobs												
3230 –32 Nurses, midwives	2.37**	1.81**	+	2.32**	1.88							
4200 –23 Customer clerks	2.48**	1.60**	+	2.31**	1.62							
5120 –23 Restaurant workers	1.64**	1.04**	+	1.64**	1.09							
8100 –90 Stat. plant operators	0.40	0.33+		0.51	0.35							
9130 –33 Cleaners, launderers	0.36	−0.15		0.34	0.10							
Nonstandard day jobs												
1300 –19 Managers (small ent.)							0.35	1.37**	**	0.29	1.30**	**
3230 –32 Nurses, midwives							1.07**	0.31	**	1.02**	0.27	*
5200 –20 Salespersons							0.96**	0.49**	+	1.04**	0.53**	+
8300 –40 Drivers							0.96*	0.49**		1.64**	0.50*	*
9130 –33 Cleaners, launderers							1.25*	0.44*		1.61*	0.38+	+

(continued)

Table 2.5 (continued)

	Nonstandard shifts[a]						Nonstandard days[b]					
	Model 1			Model 2			Model 3			Model 4		
	Netherlands	United States	Dif	Netherlands	United States	Dif	Netherlands	United States	Dif	Netherlands	United States	Dif
Partner (Ref—Co-resident; full-time standard schedule work)												
No partner				0.44*	0.37**					0.10	0.27**	
Not working				0.06	−0.13					0.01	0.19+	
Part-time work				−0.44+	−0.16					0.01	0.37*	
Nonstandard shifts[a]				0.62*	0.67**					−0.05	0.02	
Nonstandard days[b]				0.11	0.19					0.75**	0.40**	+
Age of children (Ref—No children)												
Youngest child 0–3 years				0.37	0.07					−0.41*	0.09	*
Youngest child 4–12 years				0.43*	−0.03	*				−0.29*	0.02	+
Youngest child 13+ years				0.34	−0.21	*				0.12	0.20*	
Mean household income				−0.90**	−0.10	*				0.41	−0.07	*
Constant	−3.09**	−1.94**		−3.31**	−2.07**		−1.54**	−1.17**		−1.68**	−1.45**	
Nagelkerke R2	0.19	0.10		0.21	0.12		0.10	0.07		0.12	0.08	
N	4,104	7,276		3,426	5,807		4,104	7,276		3,426	5,807	

Data Netherlands—NKPS, 1st wave, 2002–2004; US—NSFH, 1st wave, 1987–1988. Authors' calculations

Notes Sample 18–64 years old population, works at least 12 h a week (*NL* N = 4,344; *US* N = 7,801). Model controls for individual characteristics such as gender, respondent's education, and respondent's age (omitted from the table). [a]Nonstandard shifts include the categories 'Fixed evening shift', 'Fixed night shift' and 'Hours vary shift'. [b]Nonstandard days include the category 'Fixed day, weekend work'. Dif—Difference; refers to statistical significance test for country interactions

Sig ** p < .01; * p < .05; + p < .10

based on findings in Table 2.4), nonstandard shifts are overrepresented only in sales and service, plant and machinery operator, and elementary occupations (Table 2.5, Models 1 and 3). There are, however, significant country differences, showing that nonstandard shifts concentrated in certain occupational fields are stronger in The Netherlands. When looking at nonstandard day work, after controlling for five predominantly nonstandard day occupations, nonstandard days are still overrepresented in service and sales and agriculture occupations in both countries. Country differences are smaller here. Only Dutch managers have a high prevalence, which differs significantly from the U.S. case. Thus, for country differences, there is no clear evidence that nonstandard schedules concentrated in lower level occupations is stronger in the U.S. While the 'occupational structure' of nonstandard schedule work in both countries looks rather similar, the general occupational structures still have many differences.

2.4.3 Who is Working in Nonstandard Schedules?

Models 2 and 4 in Table 2.5 include in the analysis next to occupational variables household characteristics as well. In support of the hypothesis, those who are in a relationship are less likely to work nonstandard schedules (in shifts in case of both countries, in weekends in the U.S.). There is also support for the hypothesis that partners tend to synchronize their schedules. Nonstandard shift work is related to a respondents' nonstandard shift work and partner's weekend is related to a higher tendency for the partner to engage in weekend work in both countries. Note that the relationship refers to the situation where the presence and age of children (more precisely, not having children) is controlled for. Once children are present in the household, desynchronization of scheduling becomes somewhat stronger. Moreover, it appears that when children are present in the household, there tends to be a stronger correlation of entering into nonstandard schedules in The Netherlands, which differs significantly from the U.S. Regarding the effect of presence and age of children in general, in The Netherlands there is a significant increase in shift work when children are school age (4–7 years) in the household, supporting the respective hypothesis. (Readers should note that school begins at age 4 in The Netherlands). In support of the alternative hypothesis, the incidence of weekend work is significantly reduced in the presence of young children. For the U.S., there is no significant relationship of having young children on working nonstandard shifts and days. These country differences also contradict the hypothesis which predicted a stronger relationship with having children for the U.S.

Regarding the interplay between occupational and household characteristics, the data supports the hypothesis that the main predictor for working nonstandard schedules is occupational factors. Firstly, as shown in the logistic regression analysis (Models 1, 2, 3, and 4 in Table 2.5), adding the effect of household characteristics to occupational aspects increased the explanatory power of the

Table 2.6 Sheaf coefficients for occupational, household and individual characteristics in predicting nonstandard schedule work, odds

Groups of characteristics	Nonstandard shifts[a]			Nonstandard days[b]		
	Netherlands	United States	Dif	Netherlands	United States	Dif
Sets of characteristics						
Occupational characteristics[c]	2.31	1.82	**	1.93	1.55	**
Household characteristics[d]	1.45	1.27		1.35	1.17	*
Individual characteristics[e]	1.17	1.28		1.21	1.28	
Within country differences (Chi-sq)						
Occupational versus household characteristics	16.49**	31.16**	n.a.	22.71**	34.38**	n.a.
Household versus individual characteristics	3.21+	0	n.a.	2.64	3.23+	n.a.
Occupational versus individual characteristics	29.26**	27.75**	n.a.	35.19**	13.74**	n.a.

Data Netherlands—NKPS, 1st wave, 2002–2004; US—NSFH, 1st wave, 1987–1988. Author's calculations

Notes Sample 18–64 years old population, works at least 12 h a week (*NL* N = 4,344; *US* N = 7,801)

[a]Include the categories 'Fixed evening shifts', 'Fixed night shifts' or 'Varying hours shifts'. [b]Include the category 'Fixed day, weekend work'. [c]Respondent's occupation measured on the ISCO-88 scale; [d]Presence of partner, partner's employment, partner's working schedule, presence of children, age of youngest child, mean household income; Gender, education (in years), age (measured in years). Dif—Difference; refers to statistical significance test for country interactions

Sig ** p < .01; * p < .05; + p < .10

model only slightly. Also, controlling for the effect of the family situation did not remarkably change the occupation effects.

Secondly, the sheaf coefficients (Table 2.6) show that the occupational-related factors increase the chance to work in nonstandard shifts by 2.4 in the Dutch case and 1.81 times in the U.S. context. For nonstandard day work, the coefficient is respectively 1.86 for the Netherlands and 1.55 for the U.S. In both countries and schedule types, the impact of occupational characteristics in predicting nonstandard work schedules differs significantly from both the relationship with household and individual characteristics. The effect of occupational characteristics on nonstandard shifts and nonstandard days is significantly stronger in The Netherlands compared to the U.S. The effect of household characteristics is also significantly stronger in the case of The Netherlands for predicting nonstandard day work.

2.5 Discussion

Despite the argument of an ever emerging 24-hour-economy, nonstandard schedules appear to have not penetrated all parts of society even in countries where the prevalence of these schedules is very high (such as in the United States or The Netherlands), but are very much shaped by various individual, occupational, and household characteristics. Moreover, the impact of these various characteristics is shaped by a more general country-specific context, such as regulation of working time and work-family policies.

Regarding occupational aspects, nonstandard schedules tend to be strongly concentrated in certain occupations, namely those with a lower mean socio-economic position, which is often compensated with extra pay (e.g., when working night shifts); in part-time arrangements (evening shifts) or long hours (weekend work). Turning to country-specific features, in The Netherlands where working time restrictions are more stringent, the concentration of schedules in specific types of jobs is stronger; association between part-time work and nonstandard schedule work is stronger (except for weekend days); and the wage compensation mechanisms that exist are stronger compared to the U.S. Thus, working time regulation can shape the general position and meaning of nonstandard schedule work in a society (Hook and Wolfe 2013). Lack of regulation and employment protection of nonstandard schedule work may lead to a marginalization of these schedules and to a concentration into already disadvantaged labor market segments. Conversely, a stronger regulation and implementation of various 'buffer-mechanisms', likely protects workers against the 'unhealthy' effect of the schedules and means that they are not necessarily bad jobs.

Although to a lesser extent, next to occupational aspects, household characteristics also shape the prevalence and location of these schedules. Similarly to occupational aspects, there were universal and several country-specific features. There is a positive association between partners' nonstandard schedule work—so-called schedule synchronization—while one partner works nonstandard

schedules. Moreover, having young children in the household who need care, is related to a higher prevalence of nonstandard work schedules. It is not only individuals, but households who may get 'out of sync' with the rest of society, creating various new challenges and needs for managing their time and activities in a society which normally runs according to 'standard' schedule. The institutional context and work-family policies may also make a difference both in which households these schedules are concentrated and the impact of these schedules on the households. As could be seen, in The Netherlands engaging in these schedules due to household reasons seems more likely a matter of preference and not so much a forced need as in the U.S. In other words, where nonstandard schedules lack a negative connotation, families may decide to use nonstandard schedules as a way to spend more time with children or arrange child-care between the partners. However, when working these schedules represents a rather marginal employment situation, working nonstandard schedules as a way to arrange childcare may be much more of a forced choice within specific types of households who cannot afford or have no access to (public) childcare facilities.

In the backdrop of an already high prevalence and in some cases a continuous increase of nonstandard schedule work in Western societies, it is important to realize that work in nonstandard schedules is not only an occupational, but also a household characteristic. As determined from previous studies, work in nonstandard times relates to various negative individual consequences such as increased levels of stress or burn-out (Fenwick and Tausig 2001; Jamal 2004; Wang et al. 2012). There is also a high risk for these impacts to accumulate when no protective or buffer-mechanisms are available for workers and their families. In this situation, work in nonstandard schedules has a high risk to become another source of inequality not only for individuals but also households. The negative impacts can be carried over to household relations and interactions, which augment the negative consequences. As the current finding suggests, institutional differences such as work time regulation or work-family policies can shape both the prevalence and location, but most likely also the consequence that these schedules may have on individuals and families. The latter association, but also the exact mechanisms on how and when and for how long are nonstandard schedules entered due to household reasons are out of the scope of the current study, whereas both would deserve further investigation for understanding even better where are nonstandard schedules located and who works them. Now that we have established where these jobs are located and who is more likely to be employed in them, we now turn to an examination of the consequences of working in these schedules for family cohesion.

Appendix

(See Table 2.7).

Table 2.7 Description of the data

	Netherlands		United States	
	Mean	N	Mean	N
Respondent				
Female	0.52	4,344	0.51	7,801
Education in years	12.60	4,344	13.18	7,801
Age in years	40.49	4,344	36.34	7,801
Having a co-residential partner	0.68	4,344	0.61	7,801
Having children	0.62	4,344	0.54	7,801
Household income[a]	3.37	4,136	3.28	7,266
ISEI	51.19	4,344	44.13	7,801
Nr of working hours	36.70	4,133	43.76	7,344
Working nonstandard schedule	0.26	4,133	0.39	7,344
Partner				
Not working	0.22	3,734	0.26	6,594
Working nonstandard shift[b]	0.08	3,734	0.13	6,594
Working nonstandard day[b]	0.17	3,734	0.28	6,594
Number of working hours[b]	38.16	3,734	46.61	6,594

Data Netherlands—NKPS, 1st wave, 2002–2004; US—NSFH, 1st wave, 1987–1988. Author's calculations

Notes Sample 18–64 years old population, working at least 12 h a week. (*NL* N = 4,344; *US* N = 7,801). [a]Household income is presented for The Netherlands in unit of 1,000 EUR and for the U.S. 1,000 USD per month; [b]The mean for partner's nonstandard shift and day work, and the number of working hours refers to working partners only

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Chapter 3
Nonstandard Work Schedules and Parent-Child Interaction

Abstract Many children live in households where either one or both parents work nonstandard schedules in the evening, night or weekend. In this chapter we tests two competing hypotheses of whether nonstandard schedules result in lower levels of parent-child interaction or in more time with children. Using the NKPS data of couples with young children (N = 1,266) and data from semi-structured individual qualitative interviews of respondents with children (N = 27), we engage in a series of ordered logit regression models and qualitative correspondence and narrative analysis. The central finding is that nonstandard schedules are significantly related to an increase in joint activities of parents and children and care-giving for fathers. Qualitative interviews reveal strategies families develop to maintain alternative times and types of contact. Couples use nonstandard schedules to desynchronize schedules to avoid formalized childcare and engage in 'tag-team parenting' to ensure that one parent is always present.

Keywords Nonstandard work schedules · Parent-child interaction · Desynchronize schedules · Tag-team parenting

3.1 Introduction

The working patterns of parents have radically changed over the last decades, with an overwhelming shift from single- to dual-breadwinner households. The latter means also that more children now live in households where either one or both parents work in the afternoon, evening, night or weekend. Although there is a substantial body of literature on the negative impact of nonstandard schedules on individual psychological well-being, physical health (Barnett et al. 2008; Jamal 2004) and the quality and stability of partnerships (Mills and Täht 2010; Presser 2000; Weiss and Liss 1988; White and Keith 1990; Wooddell et al. 1994; Maume and Sebastian 2012), there is a surprising lack of research into the impact that nonstandard schedules have on children. It is only in recent years that a series of

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studies have emerged to address this question. This research, however, almost exclusively focuses on the U.S. context and has produced highly mixed results, generating two divergent findings. One set of studies demonstrate that nonstandard schedules result in higher levels of emotional and behavioral problems in children, often generated by heightened levels of stress, guilt or depression among parents (Joshi and Bogen 2007; Perry-Jenkins et al. 2007; Strazdins et al. 2006; Han et al. 2010; Daniel et al. 2009). Other studies have associated work hours at nonstandard times with child obesity (Champion et al. 2012) and lower reading and math scores due to a lack of parental monitoring (Han and Fox 2011). The second body of research finds no conclusive evidence of the negative impact of nonstandard schedules on parenting behavior and children's well-being, with some even pointing to the positive impact that these types of work schedules have on children (Barnett et al. 2008; Han and Waldfogel 2007; Han et al. 2010). Here the focus is often on the fact that parents actively use nonstandard schedules to spend more time with their children, ensuring that at least one parent is always present with the children (Han 2004).

These mixed findings create not only a puzzle as to whether nonstandard schedules have a positive or negative impact on children, but generally have the more narrow focus on child behavioral outcomes only. The majority of research examines outcomes in children, such as emotional and behavioral problems (Strazdins et al. 2004, 2006) and relates this almost exclusively to parental characteristics (depression, lower well-being). These studies take a large leap by implicitly assuming that nonstandard work schedules fundamentally result in different types of interaction and lower levels of interaction between parents and children, yet fail to examine the actual mechanism of parent-child interaction itself.

Here we are going to examine how different types of nonstandard schedules impact different types of parent-child interaction. To achieve this, we compare differences between those who work regular day and weekday schedules with those in different types of nonstandard schedules by differences in daily family activities (e.g., eating dinner together), time spent with children (e.g., reading, playing, homework, taking to clubs or sports) and the division of child-related care tasks and duties between partners. The majority of previous research has focused on the effect of only mothers' work schedules on children. Some research suggests that an increase in mothers' employment, especially in nonstandard schedules has a positive impact on fathers' involvement with children (Wood and Repetti 2004) and spurs a subsequent increase in childcare by fathers (Han 2004). However, less is known about how working nonstandard schedules affects the relationship of fathers with their children. Thus, we are going to extend existing literature by including both mothers and fathers and examine how the combination of their work schedules impacts parent-child interaction. This use of the household as the unit of analysis and the examination of family time is less common (for exceptions see Lesnard 2008; Nock and Kingston 1988; Carriero et al. 2009).

An additional contribution of this study is to extend the—almost exclusively American—literature on the effect of nonstandard schedules on children within

another national context (for an exception see Carriero et al. 2009; Hook and Wolfe 2013). In the United States, nonstandard schedules are often worked in low-level service jobs and by disadvantaged workers (low educated, females, young people, black) (Hamermesh 1996; Presser 2003), which may partly explain the negative effect on individuals and family life. Lower cognitive outcomes or risky behavior of children whose parents work nonstandard schedules can be partly assigned to socioeconomic circumstances and lower quality home environments (Han 2005; Han et al. 2010). As discussed earlier (see Chap. 2), the Dutch institutional context is markedly different, with highly regulated nonstandard working times and days, stringent opening hours, considerable protection of employees by unions and collective agreements and a culture of part-time work that is encouraged and offers similar benefits and protection to full-time employees. Studying the effect of nonstandard schedules in a different institutional context allows us to see whether the effect of nonstandard schedules is universal or related to contextual factors.

3.2 Nonstandard Work Schedules and Parent-Child Interaction

Research of whether and how nonstandard schedules impact children is highly mixed. A pervasive finding is that nonstandard schedules are 'unsociable' and 'unhealthy', which result in higher depressive symptoms of parents and poorer family functioning that in turn lead to lower levels of parent-child interaction and more social, emotional and behavioral difficulties in children (Desai et al. 1989; Han 2005; Strazdins et al. 2004; Han et al. 2010). The argument is that families where at least one parent works nonstandard schedules engage in less physically-present time together, with the nonstandard worker being 'out of sync' with the family (La Valle et al. 2002). Parents working nonstandard schedules have been reported to experience 'role overload' (Perry-Jenkins et al. 2007), often accompanied by serious health problems such as higher levels of stress, sleeping and physical disorders that in turn lower their overall level of well-being (Schulz et al. 2004; Daniel et al. 2009). Presser's research (1988, 2003) has linked nonstandard schedules to the erosion of marital relationships. This is signaled by higher levels of conflict, lower satisfaction and changes in family routines. A recent study that included both men and women in The Netherlands found that only women reported higher relationship dissatisfaction when working nonstandard schedules (Mills and Täht 2010). Perry-Jenkins et al. (2007) demonstrated that mothers and particularly new parents who worked non-day shifts had higher levels of depression and relationship conflict. Strazdins et al. (2004, 2006) provide evidence that children whose parents work nonstandard schedules have higher levels of emotional and behavioral difficulties such as hyperactivity and inattention, aggression, and separation anxiety. Han, Miller and Waldfogel (2010) found that the type of nonstandard schedule was important with mothers who worked night shifts spending

less time with children and having lower quality home environments, which was linked to risky adolescent behavior. Additional research by Han and Fox (2011) also linked mother's longer employment in night shifts with lower reading and math scores, which was mediated by eating meals together and parental monitoring.

In line with these findings, the underlying mechanism is that employees who work in nonstandard schedules are exhausted, emotionally and physically unavailable, and have a higher potential to withdraw or be insensitive to other family members or engage in ineffective parenting practices. A shortcoming of this research, however, is that it makes strong assumptions about parent-child interaction, and with the exception of a few studies, often groups all types of nonstandard schedules into one category or only studies shift work. It also neglects the examination of autonomy or actual preferences for working these types of schedules. Although parent-child interaction is generally only insinuated in these studies (and rarely directly studied), it is possible to translate these findings to our first hypothesis: *nonstandard schedules of either one or both of the parents will result in lower levels of parent-child interaction.*

Conversely, a contrasting body of research would lead us to form an opposite and competing hypothesis. We know that households often actively develop strategies to balance childcare, paid work and family interaction (Becker and Moen 1999). These strategies may include avoiding jobs that interfere with family duties or the choice of one partner (generally the woman) to adjust her schedule around the family. Couples often actively work to enhance their children's well-being by attempting to provide a maximum amount of parental childcare time (Mennino and Brayfield 2002). Riley and Glass (2002) show that it is often the preference of parents to share the care of children between them. This option becomes particularly relevant when both partners participate in paid labor. In this sense, nonstandard schedules offer an opportunity to fulfill this need as it allows at least one partner to always be present with the children (La Valle et al. 2002). Presser and Cox (1997) confirm that around one-third of married mothers report working in nonstandard schedules in order to help with childcare arrangements. In one of the few non-American studies of The Netherlands, Belgium (Flanders) and Italy, Carriero et al. (2009) recently demonstrated that Dutch couples tend to desynchronize (i.e. decrease work time overlap) to maximize the time each parent is with children, as opposed to the synchronizing of schedules (i.e. increase work time overlap) in Belgium and Italy. Han (2004) demonstrated that many mothers actively switch to working nonstandard hours, with the couple then shifting childcare from institutionalized formal daycare to fathers. Fathers' participation in childcare was likewise greater when both partners worked nonstandard hours. There is therefore growing evidence that nonstandard schedules foster 'tag-team parenting' or 'desynchronization', which would result in higher levels of parent-child interaction. Working different hours may increase parent-child interaction, particularly of fathers who engage in childcare while the mother is working (Averett et al. 2000; Bianchi 2000; Brayfield 1995; Riley and Glass 2002; Yeung et al. 2001). This leads to a competing hypothesis: *nonstandard schedules will result in higher levels of*

parent-child interaction, particularly from fathers when either the mother or both partners work nonstandard schedules.

As touched upon previously, less research has explicitly examined the impact of nonstandard schedules on the type of parent-child interaction. Early studies (Nock and Kingston 1988) found that parents who work nonstandard schedules spend around 30 (fathers) to 42 (mothers) minutes less per week with their children than those who work standard day schedules. Kingston and Nock (1987) also demonstrated that working nonstandard schedules is negatively related with both partner's time together and the time spent with children. Using couples' time-diary data in France, Lesnard (2008) argues that it is not necessarily a simple measure of one work shift, but what he terms the 'triple synchronization' of the overlapping schedules of the fathers', mothers' and children in the evening when most interaction occurs. Mott et al. (1965) showed that male shift workers had trouble with assuming the father role due to the lack of schedule overlap between their work schedule and the school schedule of their children. However, there appears to be few direct contemporary studies beyond the work of Nock and Kingston (1988), Kingston and Nock (1987), Lesnard (2008), Barnett and Gareis (2007) and Han, Miller and Waldfogel (2010) that examine the different types and the levels of parent-child interaction in more detail. The general focus has been on the examination of nonstandard schedules in relation to child care (Han 2004) or a broader variable that examines nonstandard schedules and the amount of time spent with children without specifying the nature of these activities (Davis et al. 2006).

Although it is a small sample in one occupation, Barnett and Gareis' (2007) study on parent-child interaction and shift work is an exception in that they directly examine not only the amount of time involved with children, but also the knowledge of the child's activities, disclosure to parents and child's and parent's rating of parenting skills. Using a sample of 55 dual-earner couples where the mother was a registered nurse, they examined the impact that shift work had on parenting behavior and children's well being. The central finding was that mothers' work schedules did not affect the amount of time they directly spend with their children, disclosures from children or ratings of parenting behavior. When mothers worked evening shifts, fathers reported spending more time with children. One conclusion was that the effects of maternal shift work on child outcomes were mediated by the fathers' parenting behavior. Both Nock and Kingston (1988) and Lesnard (2008) also found that 'off-scheduling' has double the effect on mother's time in comparison to father's time. Hook and Wolfe (2013) likewise found that in the United States that whether fathers spend more time with children is highly sensitive to household employment arrangements and the national level context. Based on these findings we can derive an additional hypothesis: *when women work nonstandard schedules, men will be significantly more involved in child-care tasks and duties while women will show no reduction in child-care tasks*.

Less change is expected in women's child-care tasks due to the fact that previous research has found that mothers' nonstandard work schedule has little impact on the

time they spend with their children as it is often planned around children themselves (Barnett et al. 2008; Presser 1988). Or, as Lesnard (2008) has argued, fathers do not undertake more unpaid work activities even when their work schedules do not coincide with their partners due to the lack of domestic expertise or knowledge of what has to be done in the household or even a refusal to learn these skills.

3.3 Nonstandard Schedules in the Netherlands

A discussed earlier (see Chap. 2), in contrast to the U.S., where the bulk of research has been conducted to this point, in the Netherlands nonstandard schedule employment does not necessarily fall into the category of 'bad jobs' (Kalleberg et al. 2000) or a nonnegotiable job condition, which is often the case in the U.S. (Perry-Jenkins et al. 2007). The findings until now may therefore reflect a broader labor market and industrial relation system of the U.S. as opposed to solely the impact of nonstandard schedules (Mills and Täht 2010). We also consider the level of autonomy in choosing schedules and expect that nonstandard schedules may not only be employer driven, but also a choice of parents. The very ability to choose, institutional protection and cultural acceptance of nonstandard schedules may buffer the negative effects these schedules have on parent-child interaction and family solidarity, leading to the hypothesis that in the Dutch context: *nonstandard schedules will have a insignificant negative or even positive effect on parent-child interaction.*

Institutional features and cultural norms in The Netherlands encourage and reinforce the predominance of part-time work, especially among women and mothers. In 2003, about 64 % of Dutch women were employed, consisting of 75 % part-time workers, compared to the European average of 25 % (OECD 2006) or 18 % in the U.S. The standard Dutch family structure is the 'one-and-a-half' earner model (man full-time, woman part-time) or a male-breadwinner model (man full-time, housewife), with only 15 % of couples categorized as full-time dual-earners (van Gils and Kraaykamp 2008). Part-time work for mothers is also reinforced by the school system, with elementary school-aged children generally having one to two afternoons free per week and in many cases return home for lunch each day, demanding intensive parenting or reliance on often expensive and scarce after-school care. There is also an apprehension towards full-time working mothers and strong norms against more than 2 days of formalized day-care. In a national study, Portegijs et al. (2006) found that 61 % of households with children under 12 used no kind of (in)formal childcare. When parents did use childcare, the average was around 2 days a week. Most of the parents interviewed agreed that it was better for children to be cared for by their own parents, with 75 % finding that formalized day care should be one to a maximum of 2 days a week. In line with previous research (Deutsch 1999; Carriero et al. 2009), this demonstrates the importance that parents in The Netherlands give to exclusive parental (generally mother) care,

particularly for infants. Within this context, women tend to arrange their working life around the needs of children. We therefore hypothesize that *irrespective of which parent works nonstandard schedules, the effect of nonstandard schedules will have a stronger positive effect on fathers' parent-child interaction than for mothers*. This is also attributed to the fact that women spend more time in child-care and interacting with children than men (see e.g. Lesnard 2008).

3.4 Data and Method

3.4.1 Data

These research questions are examined by using a mixed-method approach that employs a large-scale quantitative dataset of couples combined with in-depth open interviews. The quantitative data is drawn from the first wave of the NKPS. The sub-sample of the quantitative data consists of co-residential couples where at least one of the partners is working and where the couple has at least one child under the age of 12. This leaves us with a final sub-sample of 1,266 couples. The qualitative data comes from the NKPS Minipanel. The analysis for this chapter relies only on interviews of respondents with children, reducing the sample to 27 individual-level interviews.

3.4.2 Measures

Parent-child interaction is operationalized in the quantitative analysis via various measures that help to capture the multidimensional types of joint parent-child activities and interaction. Firstly, we examine the *number of family dinners* that a respondent reports having together with their partner and children during a typical workweek. *Activities carried out with children* is measured using a four-item-scale ($\alpha = 0.60$), that includes the frequency of being engaged in the following activities in the past week: reading to child(ren); playing board games, spending time at the computer, drawing; helping child(ren) with homework; and taking child(ren) to sport activities or clubs. The item refers to respondent's/partner's self-assessed personal time spent with children. *Division of child-rearing tasks between partners* is measured using a three-item-scale ($\alpha = 0.81$) that consists of: staying at home if the child is ill; getting out of bed at night; and taking the child(ren) to school, day care or a babysitter. The item refers to division of child-rearing tasks between partners assessed by the respondent/partner.

The *nonstandard working schedule* variable is constructed from the actual working hours of the week prior to data collection. We use the standard majority definition where at least half of the hours worked most days in the prior week must

fall outside 08:00 and 16:00 (Presser 2003, see more in Chap. 1). Next to the working schedule of both partners, we also control for the number of hours worked, differentiating between no work (not working or less than 12 h a week), part-time (12–35 h a week) and full-time work (more than 35 h a week). To control for the joint effect of partners' schedule arrangements on parent-child interaction, we use the partners' schedule combination variable (see more Chap. 1).

Control variables include: household characteristics (age, education and socio-economic status of the family) and family characteristics (marital status, number and age of children living home). Our underlying assumption is that married couples will have a more traditional division of labor and family-oriented norm, which will translate into more time with children, particularly for women in male-breadwinner households. Socio-economic status is measured using the International Socio-Economic Index (ISEI) (Ganzeboom et al. 1992). We also include the autonomy in choosing workdays and hours.

3.4.3 Analytical Techniques

The quantitative analysis applies an ordered logit regression model to avoid losing information that would occur from collapsing or dichotomizing scales. These models are not sensitive to the variable distribution in the way that OLS regression models are and permit us to analyze variables with a skewed distribution (Long 1997; Winship and Mare 1984). Due to our expectations about gender differences, combined with evidence also shown in previous studies and an initial examination of the data, we run separate models for men and women while comparing the differences between the sexes in parent-child interaction. As for the number of family dinners together during a workweek, the count is the same for all family members as opposed to the time spent in child-care activities, which is measured at the individual level, which permits us to look at the differences between men and women.

We also ran multi-level dyadic (random effect) models, which did not lead to substantively different conclusions. We opted for the individual- or gender-level analysis presented here firstly due to fact that previous research and initial analyses demonstrated that the impact of nonstandard work schedules on parent-child interaction is strongly influenced by the gender of the parent. Secondly, since family dinners were measured at the couple level, a multilevel model was not appropriate for this analysis. Finally, the central independent variable of interest is the schedule combinations between couples, which consist of household types according to partners' schedule type combinations. This variable is therefore also constant across couples and not useful in a multilevel framework.

The qualitative analyses combine narrative analysis with summarizing graphical techniques to bring out themes and contrasts. The narrative analysis consisted of close readings of the transcribed interviews by first defining general categories (e.g.,

reason for working nonstandard schedules) and then investigating the relationship between these categories with respect to characteristics of the respondents (e.g. sex, type of nonstandard schedule, combination of couple working times) (Denzin and Lincoln 2003; Strauss and Corbin 1990). This type of detailed reading and interpretation of the data permitted us to isolate narratives that exemplify certain points or associations. We developed formal coding procedures with multiple coders and first created a common coding scheme and codebook. We then engaged in the computer-assisted summarizing technique of correspondence analysis using QDA Data Miner (Peladeau 2007). This technique, which was developed in the early 1970s by a French linguist (Benzecri 1973), visually represents relationships between codes, themes and individuals' characteristics within the data. It uses algebraic methods to reduce the complexity of dimensions of the coded categories and displays them in a visual matrix that shows their association in two or more dimensions. This approach has the advantage of reducing the complexity of the coded categories and ordering them by showing their association by clustering them in a visual matrix, which enhances the interpretation of data (figures available upon request).

3.5 Results

3.5.1 Family Dinners

Table 3.1 presents the results of the ordered logit regression for predicting the frequency of family dinners together. Working nonstandard schedules appears to reduce the opportunity of family dinners. In households where both partners work nonstandard schedules (either in part- or full-time) there are fewer joint family dinners than in the 'standard' Dutch one-and-a-half-earner families. There are also significantly fewer family dinners when the male partner works nonstandard days and his partner works standard hours, regardless of whether they work part- or full-time hours. Particularly for males, being involved in nonstandard schedules makes them less likely to have dinners together with the entire family. As discussed previously, weekend employment is often related to overtime work and we can speculate that those men who work in the weekends also miss family events during the week. Although not significant, a higher autonomy in choosing working hours is related to men and women participating more in family dinners. This is likely related to the fact that the ability to choose days and hours is highly related to being in a higher-level professional occupation and engaging in more overtime, which is related to fewer family dinners.

The results provide some support for the first hypothesis, which predicted a reduction of family-child interaction (i.e., family interaction where both parents are present) when parents work nonstandard schedules, particularly at 'social' times. Here we see fewer possibilities for family dinners when mothers work fixed

Table 3.1 Summary of ordered logit regression analysis for variables predicting the frequency of family dinners together, odds ratios

Predictor	Respondent's household	
	e^B	Wald
Family characteristics		
Number of children living home	0.94	1.16
Child aged 4–12 years (Ref = <3)	0.91	0.59
Child aged 12+ years (Ref = <3)	0.78*	4.75
Married (Ref = cohabitation)	1.40**	7.70
Couples' work schedule combinations		
Male NW; Female NS shift/day PT/FT	2.56	1.42
Male NW; Female S PT/FT	2.29	1.45
Male NS shift/day PT/FT; Female NW	0.94	0.01
Male S PT/FT; Female NW	1.45	0.35
Male/Female NS shift/day PT/FT	0.39**	28.96
Male NS shift PT/FT; Female S PT/FT	0.69	2.25
Male NS day PT/FT; Female S PT	0.62**	8.62
Male NS day PT/FT; Female S FT	0.17**	15.26
Male S PT/FT; Female NS shift PT/FT	0.37**	31.83
Male S PT/FT; Female NS day PT	0.82	0.81
Male S PT/FT; Female NS day FT	0.52*	4.29
Male S PT/FT: Female S FT	0.75	1.74
Male S PT/FT; Female S PT (Ref)		
Respondent's autonomy in choosing days/hours	0.97	0.76
Partner's autonomy in choosing days/hours	0.97	0.76
Nagelkerke Rsq	0.06	
N	1,260	

Data NKPS 2002–2004; Authors' calculations

Note Sample couples, where at least one is working, at least one child younger than 12 years is living in the household. Total N = 1,266 couples. Dependent variable: number of dinners together during working week: 0—never, 1–1 day a week, 5—five days a week assessed by the respondent/partner. Model controls for gender, partners' education, socio-economic status, age

Abbreviations NW not working or working less than 12 h a week; *PT* part-time work (12–35 h a week); *FT* full-time (more than 35 h a week); *NS shift* nonstandard shifts (fixed evening, night, hours vary); *NS day* nonstandard days (working in Saturdays/Sundays, day hours only); *S* standard schedule (fixed day schedule, in weekdays only)

+p < 0.10. *p < 0.05. **p < 0.01. Wald = $(B/SE)^2$ (compared with a χ^2 distribution with 1 DF)

evening/nights or fathers work on the weekend. The qualitative analysis, however, forces us to reevaluate the validity of whether our one-item measure of number of family dinners together adequately captures family interaction.

Throughout the interviews, individuals explained strategies they developed to eat or spend time together at least once during the day, such as moving the standard family evening dinner to lunchtime.

> If he has an afternoon shift then I make a hot meal for lunch….then we eat dinner. My daughter comes home at lunch from elementary school and also joins us.
>
> *(Female, housewife of rotating shift worker)*

Whereas the quantitative analysis that focused on the frequency of family dinners shows less family interaction, the qualitative interviews illustrated multiple strategies to overcome this obstacle, by replacing dinners with other group family moments such as a joint breakfast, lunch, walk or additional activity at an alternative time. It became clear that respondents were often masters of their own schedules, actively planning, rationally focusing on schedules and timetabling family time into their calendars. Virtually every house had a detailed family calendar either on the wall or in an agenda, where work schedules and activities were often meticulously planned.

> The family agenda is hanging there. I coordinate most of the appointments on that agenda with my own.
>
> *(Male, rotating shifts, part-time employed partner)*

> You need to plan meetings around birthdays. If you don't you are hostage to your planner, like this week where from the seven nights I am gone for six of them and that is the type of game that you need to play.
>
> *(Male, irregular work times, partner housewife)*

3.5.2 Time Spent with Children

Table 3.2 shows the results from the ordered logistic regression models of the effect of nonstandard schedules on personal time spent with children. Recall that our second hypothesis anticipated that nonstandard schedules would actually increase parent-child interaction, especially for fathers, which is largely supported. It appears that in the Dutch case, working nonstandard schedules significantly increases participation in activities with children, particularly for fathers. This occurs particularly within certain schedule combinations: father nonstandard/mother homemaker, father nonstandard/mother standard schedules; and father standard/mother part-time on nonstandard days. Although it is not significant, for mothers, we observe a positive relationship with time spent with children when they work nonstandard shifts in combination with their partner's standard schedule.

Table 3.2 also demonstrates that when women engage in nonstandard work (both shifts and days), fathers were more involved in various activities with children. This, however, was not significantly higher than for fathers who worked standard schedules. For women, the effects are rather modest and insignificant.

The narratives of nonstandard schedule workers and their partners during the in-depth interviews provide insights into why fathers might be more involved with their children. As one father who worked irregular hours stated: "If I am free, that means that I am simply at home and I can take care of the children." Fathers

Table 3.2 Summary of ordered logit regression analysis for variables predicting time spent with child(ren), odds ratios

Predictor	Male respondent		Female respondent		Females differing from males	
	e^B	Wald	e^B	Wald	e^B	Wald
Family characteristics						
Number of children living home	1.28**	12.14	1.27**	11.89	0.99	0.01
Child aged 4–12 years (Ref = <3)	1.78**	14.42	2.69**	38.71	1.49+	3.38
Child aged 12 + years (Ref = <3)	0.47**	26.73	0.32**	56.46	0.69+	3.08
Married (Ref = cohabitation)	1.27	2.13	1.67**	10.25	1.31	1.43
Couples' work schedule combinations						
Male NW; Female NS shift/day PT/FT	0.68	0.11	2.14	0.41	3.02	0.43
Male NW; Female S PT/FT	0.47	0.45	2.90	0.92	5.81	1.25
Male NS shift/day PT/FT; Female NW	20.97*	5.27	2.84	0.63	0.13	1.21
Male S PT/FT; Female NW	17.34*	4.70	1.96	0.26	0.11	1.44
Male/Female NS shift/day PT/FT	1.34	1.53	0.72	2.00	0.53+	3.64
Male NS shift PT/FT; Female S PT/FT	2.67**	8.93	1.15	0.19	0.43+	3.53
Male NS day PT/FT; Female S PT	1.00	0.00	0.79	1.33	0.78	0.71
Male NS day PT/FT; Female S FT	0.71	0.26	0.40	2.07	0.56	0.39
Male S PT/FT; Female NS shift PT/FT	1.18	0.48	1.09	0.12	0.92	0.06
Male S PT/FT; Female NS day PT	1.89*	5.47	0.97	0.01	0.51+	3.00
Male S PT/FT; Female NS day FT	1.12	0.07	0.72	0.60	0.65	0.52
Male S PT/FT: Female S FT	0.90	0.14	0.40**	9.67	0.44*	3.88
Male S PT/FT; Female S PT (Ref)						
Respondent's autonomy of days/hours	1.05	0.73	0.97	0.27	0.92	0.85
Partner's autonomy of days/hours	0.86*	4.90	0.95	0.82	1.11	1.38
Nagelkerke Rsq	0.08		0.15		0.17	
N	1,246		1,257		2,503	

Data NKPS 2002–2004; Authors' calculations

Note Sample Couples, where at least one is working, at least one child younger than 12 years is living in the household. Total N = 1,266 couples. Dependent variable: mean of respondent's/partner's self-assessed frequency of doing following activities with child(ren) in the past week: reading to them; playing board games, spending time in computer; help them with homework; take them to sport activities or clubs. Measured on scale: 1—not at all; 2—few times; 3—often. *Scale* $\alpha = 0.60$. Model controls for parents' education, socio-economic status, age

Abbreviations NW not working or working less than 12 h a week; *PT* part-time work (12–35 h a week); *FT* full-time (more than 35 h a week); *NS shift* nonstandard shifts (fixed evening, night, hours vary); *NS day* nonstandard days (working in Saturdays/Sundays, day hours only); *S* standard schedule (fixed day schedule, in weekdays only)

+p < 0.10. *p < 0.05. **p < 0.01. Wald = $(B/SE)^2$ (compared with a χ^2 distribution with 1 DF)

(and their partners) in particular argued that nonstandard schedules allowed them to be more involved with their children.

> The advantage of the night shift is that I am home in the morning for the entire week. That means that I can help my wife with the children. Just take the girls to school or pick them up, and that we can have a hot meal together here at lunch.
>
> *(Male, fixed night shift worker, partner part-time)*

> An advantage of irregular work times is that I have three children, two twin boys and the second of the twins was born with brain damage…he was heavily disabled and because of the irregular work times I could spend a lot of time with him….and that has in fact brought him to where he is now and that goes very well.
>
> *(Male, rotating and irregular shifts worker, partner housewife)*

However, not all fathers were positive about their situation, particularly the men who worked numerous overtime hours or during the weekend. This is likely related to the previous findings in Table 3.1 that demonstrated that these men often missed family dinners.

> …I don't like it because during the week they [children] are in school. Like now, I am free but they are in school. In the weekends when I have to work the children are free. But yes, it is always give and take. One time maybe I'll have more time to spend with them.
>
> *(Male, shift and weekend worker, with young children)*

The last columns of Table 3.2 test for significant differences between the sexes and shows that there is not a significant difference between men and women in terms of how the household working time arrangements affect the time spent with children. Fathers spend significantly more time with children when both partners are working nonstandard schedules, or when fathers work nonstandard shifts and mothers are in standard schedules. This is also the case, however, when mothers work part-time nonstandard days and fathers are in standard schedules. As mentioned previously, this is likely attributed to the fact that mothers spend more time in general with children. Furthermore, as shown in previous quantitative studies, many mothers do in fact arrange their work schedules around children or in the Dutch case drop out of the labor market entirely, repeatedly confirmed in the qualitative interviews. The pressure for women to reduce hours or pull out of the labor market is also very strong.

> I made a decision to stop working when the children came. When the youngest turned 6 I started to work again during the hours that they were at school.
>
> *(Female part-time worker, partner night shift worker)*

> She was always involved. At school with the Parent's Board and that sort of thing, she always had time for it….She was always there, because the dual-earners, you know, they don't have time for children.
>
> *(Male, rotating shifts, partner housewife)*

> …I couldn't live without work. No, you wouldn't want to put me at home for seven days alone in the house with the children. That would be war. But people often say to me: "Wow, you have children and you still work 27 h [a week]!". Then I think yes, but I am still a good mother.
>
> *(Female, rotating shift work, partner full-time)*

Parents discussed the importance of one parent always being present and intentional desynchronization of schedules, which involved not only the adjustment of the mother's but also the father's schedules and the importance of joint scheduling.

> It's good that you can make a lot of time free for your family and also be competitive [at work] because you can spread your 38 h of work over 24 h a day so to speak.
>
> *(Male, rotating shifts, part-time employed partner)*

> When I started to work there, then we made the agreement, if the children come, then we both want to work four days [a week]. That was good and then when [name son] came, then I said: "I am going to work four days". I was one of the first there; especially for a man it was strange. But to this day they have never said no to a free day.
>
> *(Male, standard days, partner part-time rotating shift work)*

In the analysis we also controlled for marital status based on the expectation that being married would result in a more 'traditional' division of labor, with married women more likely to stay at home with their children, have a more traditional division of child-care and rearing tasks, and be more engaged in activities with children. Our results confirm this expectation—married women spend more time in activities with children compared to those who are not married. For men, the frequency of playing, reading, doing sports, and other activities does not significantly differ between married and cohabiting couples. We also anticipated that higher autonomy in choosing days and hours would lead to a better ability to engage in activities with children, which for reasons already outlined earlier (i.e. autonomy often means a higher professional job), does not appear to hold.

The qualitative interviews bring additional nuances to our understanding of how nonstandard schedules might impact parent-child interaction. Night shift workers suggested that their work led to tiredness and irritability, which in turn resulted in limited, sometimes negative, but often 'adapted' interaction with their children. As with family dinners, parents and children appeared to learn how to adapt, with one night shift worker explaining the reason for his or her irritability or asking children to be quiet to allow them to sleep.

> I would always say to the kids 'Daddy worked the night shift'. Then they would take it into account….because you are irritated much faster. I think it is because of the biorhythm and the switches.
>
> *(Male, shift and weekend work, housewife)*

The narratives also offered an additional window into understanding the relationship between nonstandard schedules and autonomy in choosing one's working times. There were distinct differences in the interviews of those who felt that they

were 'forced' to work nonstandard schedules compared to those who actively chose to do so. As one male factory worker stated:

> You have to do it…in terms of money it is really good, but in terms of family…the one time the children see their dad and then the other time they see their mom. I don't like that much myself.
>
> *(Male, shift worker, partner full-time shift worker)*

3.5.3 Division in Child-Care Tasks

In relation to participation in child-care tasks, our expectation was that when women were employed in nonstandard schedules, men would be significantly more involved in child-care tasks and duties, whereas women would show no reduction in child-care tasks. The results from the regression analysis (Table 3.3) provide mixed support, with several unexpected results.

First, it is the combination of work schedules, and particularly when men are in nonstandard schedules, that are pivotal. When fathers are in nonstandard shifts and mothers in standard schedules, fathers are significantly more likely to engage in more child-care related tasks, thereby reducing the mother's workload. This is contrary to our expectations that women's tasks would not be reduced. Fathers working nonstandard shifts significantly increase their participation in daily child-care tasks such as taking kids to day-care or school and taking care of children when they are sick when they work both in nonstandard shifts and days. Turning to the last column of Table 3.3, we also observe significant differences between men and women in these schedule arrangements. This higher parent-child interaction and participation of fathers who worked nonstandard schedules in household tasks was echoed in the qualitative interviews.

A mother's schedule has a significant impact on how often her partner is engaged in practical care tasks, and more often when women work full-time. This partly supports our expectation about the traditional family model of women being the primary caregivers and arranging their time more around others, especially children. However, it may be also that the minority of Dutch couples that both work more hours engage in more 'outsourcing' of childcare activities, which we are not able to test here.

Turning to the qualitative interviews, respondents in nonstandard schedules expressed difficulties, guilt and regret about the inability to engage in activities with their children, particularly during the weekend. Yet is also appears that families developed coping strategies and rationalizations to deal with their situations.

> The children don't know anything else than the fact that I am a shift worker. They don't know what a normal father is [laughs]…You know? Not the normal times, they don't know anything else….in the weekend, my son goes to sports, then it is difficult to go with him, you can just forget those sort of things.
>
> *(Male, shift worker, partner housewife)*

Table 3.3 Summary of ordered logit regression analysis for variables predicting the division of child-related care tasks/duties between partners, odds ratios

Predictor	Male respondent		Female respondent		Females differing from males	
	e^B	Wald	e^B	Wald	e^B	Wald
Family characteristics						
Number of children living home	0.94	0.57	1.00	0.00	1.06	0.30
Child aged 4–12 years (Ref = <3)	0.77^{+}	2.66	1.23	1.58	1.60^{*}	4.20
Child aged 12+ years (Ref = <3)	1.03	0.03	1.01	0.00	0.98	0.01
Married (Ref = cohabitation)	0.86	0.80	0.91	0.32	1.07	0.07
Couples' work schedule combinations						
Male NW; Female NS shift/day PT/FT	0.06^{*}	4.53	5.24	1.78	82.76^{**}	6.06
Male NW; Female S PT/FT	0.14^{+}	2.77	2.30	0.52	17.85^{+}	3.01
Male NS shift/day PT/FT; Female NW	2.75	0.51	0.47	0.30	0.17	0.82
Male S PT/FT; Female NW	1.96	0.23	0.60	0.14	0.30	0.38
Male/Female NS shift/day PT/FT	1.39	1.72	0.97	0.02	0.69	1.10
Male NS shift PT/FT; Female S PT/FT	3.58^{**}	13.58	0.43^{**}	6.73	0.12^{**}	20.05
Male NS day PT/FT; Female S PT	0.99	0.00	1.33	1.73	1.35	0.93
Male NS day PT/FT; Female S FT	4.30^{*}	4.29	0.44	1.51	0.10^{*}	5.59
Male S PT/FT; Female NS shift PT/FT	0.67	2.39	1.16	0.36	1.75	2.36
Male S PT/FT; Female NS day PT	0.77	0.78	1.29	0.77	1.67	1.56
Male S PT/FT; Female NS day FT	0.62	1.09	1.13	0.08	1.81	0.89
Male S PT/FT: Female S FT	2.71^{**}	10.09	0.29^{**}	15.91	0.11^{**}	25.63
Male S PT/FT; Female S PT (Ref)						
Respondent's autonomy of days/hours	1.24^{**}	13.60	1.08	1.36	0.87	2.25
Partner's autonomy of days/hours	0.92	1.54	0.87^{**}	6.64	0.95	0.38
Nagelkerke Rsq	0.17		0.16		0.60	
N	1,238		1,249		2,487	

Data NKPS 2002–2004; Authors' calculations

Note Sample couples, where at least one is working, and at least one child younger than 12 years is living in the household. Total N = 1,266 couples. Dependent variable: mean of respondents estimation on who does usually the following activities: stay home when child is ill; take the child to school, day care, babysitter; talk to child. 1—always partner, 2—usually partner, 3—equal; 4—usually respondent; 5—always respondent. Scale $\alpha = 0.81$. Model controls for parents' education, socio-economic status, age

Abbreviations NW not working or working less than 12 h a week; *PT* part-time work (12–35 h a week); *FT* full-time (more than 35 h a week); *NS shift* nonstandard shifts (fixed evening, night, hours vary); *NS day* nonstandard days (working in Saturdays/Sundays, day hours only); *S* standard schedule (fixed day schedule, in weekdays only)

$+p < 0.10$. $*p < 0.05$. $**p < 0.01$. Wald = $(B/SE)^2$ (compared with a χ^2 distribution with 1 DF)

Others acknowledged these problems but argued that nonstandard schedules were a 'necessary evil' to avoid putting children into formalized childcare. This supports previous research that has found that parents have a clear preference to care for their own children if possible (Mennino and Brayfield 2002; Riley and Glass 2002) and use nonstandard schedules as a tactic to do so (Han 2004).

> …the only disadvantage, yes, that is the weekends, but it is practical in terms of childcare, you know. But I find it a disadvantage sometimes, you know. I would like to only work one weekend in the month, but for childcare this is simply the handiest. And for the children, that is who we live for, that is what we do this for.
>
> *(female, rotating shifts, husband full-time)*

> We also make sure that one of us is always available. If I need to work then I make sure that [name husband] is there. We always try everything so that the children never have to suffer.
>
> *(female, rotating shifts, husband full-time)*

Using the qualitative data, in a correspondence analysis (available upon request) we examined the type of work schedule by division of child-related care tasks. We found that working either night shifts or variable hours is clearly related to narratives surrounding tiredness and irritability and less time with children. What also emerges, however, is that the father (or his partner) working night or rotating shifts often mentioned that men were more able to help daily child-care duties such as, taking them to school, preparing meals and engaging in housework.

Another finding emerging from the interviews is that nonstandard schedules appeared to be a way to avoid formal childcare. When nonstandard hours become too varied, however, formalized childcare was very difficult to realize. A prominent narrative from Dutch mothers was an aversion to and pride of not using public childcare.

> …if the mother goes to work and then also takes the children to the daycare or the after school care, I just simply find that too long for a child. Just because mom has to work they have to sit there with so many children again…..My children don't ever have to go to any sort of care at their lunch break or anything else because there is always someone from our own family around….I find it a 'must'.
>
> *(Female, housewife, partner full-time rotating shifts)*

> I find it strange that you would want children and then not care for them. It is our children and we care for them as much as possible ourselves.
>
> *(Female housewife, partner full-time irregular shifts)*

The importance of having at least one parent or family member (e.g. grandparent, sibling) at home to care for the children was a central narrative throughout these interviews of both men and women, providing support that nonstandard schedules indeed appear to be a way for parents to actively desynchronize and engage in 'tag-team parenting'.

3.6 Discussion

In the current chapter we applied a multi-method approach to examine the impact of nonstandard schedules on parent-child interaction, including activities together with children and the division of child-care and rearing related tasks between parents. We explored two competing hypotheses that were derived mainly from the existing—almost exclusively American—literature. The first was whether nonstandard schedules resulted in lower levels of parental interaction (often attributed to role overload, emotional and physical stress). The second opposing hypothesis was that parents use nonstandard schedules in order to spend more time with children, avoid formal childcare and ensure that one parent is always present, resulting in more parent-child interaction, particularly from fathers. Our findings provided more pronounced support for the second stream of literature. We saw that the likelihood of working nonstandard schedules is related to having children, especially for women, but also for men. Qualitative interviews showed that it was a conscious choice to desynchronize and combine work and family via nonstandard schedules. Nonstandard schedules allow couples to arrange child-care activities better, spend more time with children and be 'parents on demand'. But it is not only nonstandard schedules, but also the country-specific contextual aspects that seem to play a significant role. Family life and raising children in The Netherlands is still highly regulated and based on a male-breadwinner model (man working full-time, woman staying home or working reduced hours) (van Gils and Kraaykamp 2008) and the acceptability of reduced part-time hours. Relatively expensive and limited child-care and the school hours of younger children also implicitly assume that one parent needs to be home or work reduced hours. But it is also undoubtedly linked to cultural norms that form a less positive view of institutional childcare and working mothers. In fact, a recent government motion that suggested to make childcare free to all individuals and promote women to work more hours was met with protest by mothers and feminist groups alike. Dutch feminism is strongly built upon the 'right to work part-time', with the right to work full-time rarely considered.

On the other hand, in contrast to previous studies and in line with work such as Presser (1988), working nonstandard schedules in order to arrange child-care and family life appears to have less negative consequences for families in The Netherlands. Parents seem to manage to keep their caring and quality time with children or even increase it compared to those who work standard schedules. One of the explanations for this divergent finding might once again be the Dutch institutional context. For instance, part-time work is not only acceptable, but also widely used. Nonstandard schedule work (especially the shifts that are physically and socially more demanding) is often carried out in reduced hours, which due to high employment protection and working time regulations results in the employee receiving comparable benefits and wages and does not undermine their labor market

position. Thus, the many negative effects of extreme physical strain and a poorer labor market position that have been related to nonstandard schedules in the U.S. seem not to be the case in The Netherlands.

We also uncovered a strong gender effect. Working nonstandard schedules in combination with children appears to affect men and women, however, in a slightly different manner and magnitude. First, working nonstandard schedules reduces the time spent in joint family dinners, particularly for male weekend workers. The qualitative interviews, however, challenged the validity of the quantitative measure of family dinners as a measure of parent-child interaction by revealing that evening meals were often replaced by other meals or activities earlier in the day, suggesting that families actively develop strategies to overcome this symbolic scheduling 'problem'. Families are acutely aware of scheduling and develop family calendars to make family appointments. For fathers, working nonstandard shifts significantly increased the time spent in activities with children, again found previously in studies such as Presser (1988). However, for women, working nonstandard schedules does not seem to increase women's time spent with children, nor does it reduce it.

There are clearer trends and gender differences when it comes to the division of daily child-care activities such as taking kids to school, staying at home when children are sick, or getting out of bed at night. Especially for fathers, their involvement in nonstandard schedules increases their share in child-care activities, whereas in some cases it significantly reduces the mother's share of daily child-rearing tasks. This finding again supports previous findings, such as Nock and Kingston (1988). Women tend to work more often around the schedules of the others, often in order to maintain their time spent with children, also found in previous research (e.g., Craig and Powell 2011). The qualitative interviews revealed that couples also jointly negotiate schedules, often adapting men's schedules as well. An interesting finding is that women's child-care tasks are reduced when their partners work nonstandard times. This suggests that men in nonstandard schedules might be actively working in nonstandard schedules to engage in more time with and care of children, also suggested by the qualitative interviews. Thus, if we assume that working nonstandard schedules is a conscious choice, it indeed makes a difference when it comes to parent-child interaction. We also found that it is often fathers who work reduced hours particularly in combination with nonstandard schedules, which allows them to participate more in family life, which may be more unique to the Dutch context. The relationship of nonstandard work with father's parental involvement appears to be highly country-specific; with a recent study by Hook and Wolfe (2013) concluding that fathers' time with children when they work nonstandard schedules is often highly dependent on mother's employment, particularly in the UK and Germany. Even though a male breadwinner or one-and-a-half earner family model are the dominant family structures, we can see that it is also men who modify their work schedules according to family needs.

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Chapter 4
Nonstandard Work Schedules and Partnership Quality

Abstract This chapter questions existing findings and provides new evidence about the consequences of nonstandard work schedules on partnership quality. Using quantitative couple data from the Netherlands Kinship Panel Study (NKPS) (N = 3,016) and semi-structured qualitative interviews (N = 34), we found that, for women, evening schedules and schedules with varying hours resulted in lower relationship quality than for men. Men with young children who worked in the weekends had less relationship conflict and spent more time with children. Parents used nonstandard schedules for tag-team parenting or to maintain perceptions of full-time motherhood. The lack of negative effects, particularly for night shifts, suggests that previous findings—largely U.S. ones—are not universal and may be attributed to wider cultural, industrial relations, and economic contexts.

Keywords Nonstandard work schedules · Partnership quality · Relationship conflict · Tag-team parenting

4.1 Introduction

The diffusion of nonstandard work schedules in industrialized countries has brought diverse challenges to family relationships (Presser et al. 2008). The majority of existing research has showed overwhelmingly negative effects of nonstandard work schedules (Perry-Jenkins et al. 2007; Weiss and Liss 1988; White and Keith 1990; Maume and Sebastian 2012), including higher levels of divorce, less time together as a couple, and lower relationship satisfaction. Nonstandard schedules have been found to exert a strain on relationships due to a lack of companionship and unequal participation in household duties (Hertz and Charlton 1989; Maume and Sebastian 2012), or role overload (Perry-Jenkins et al. 2007), which can lead to guilt, anger, loneliness, and depression (Matthews et al. 1996). Such schedules have also been linked to higher levels of stress and sleeping and physical disorders (Schulz et al.

K. Täht and M. Mills, *Out of Time*, SpringerBriefs in Sociology,
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2004). Exhausted individuals are emotionally unavailable and potentially insensitive to other family members.

Like the majority of the research on nonstandard schedules comes from the United States, also the impact of nonstandard schedule work on partner relations has been mostly discussed in the U.S. context. As already discussed in earlier chapters, the United States is a unique case because of the pervasiveness of nonstandard schedules (Presser 2003) and comparatively weak employment protection (see Chap. 2), which raises also here the issue of the universality of the previous findings. Using a multi-method approach, we question existing findings and provide new evidence by examining the impact of nonstandard schedules on partnership quality in The Netherlands. We define partnership quality as the level of relationship conflict and dissatisfaction. Using the data from the first wave of the NKPS (2002/04), we examine how the impact of nonstandard schedules on partnership quality varies as a function of couples' work schedules and work schedule combinations, personal characteristics, and relationship and family characteristics, as well as the association among those factors. We also use qualitative interviews (N = 34) from the NKPS Mini Panel to supplement and fill in gaps from the quantitative data and to understand certain effects and explore individual perceptions and strategies that couples develop.

4.2 Nonstandard Schedules and Partnership Quality

Working nonstandard schedules is often related to higher levels of stress, tiredness, and sleeping problems (Fenwick and Tausig 2001), which may have a negative impact on relationship quality, which we measure in this study by the level of relationship conflict and dissatisfaction. Employees with nonstandard schedules face intense time demands of employment and the family domain (Voydanoff 2004).

A seminal study by Mott et al. (1965) found that shift work reduced partnership happiness and the ability to coordinate family activities, thus causing strain and conflict. White and Keith (1990) established that family arguments increased when at least one family member worked a non-day shift. In a study of male air force security guards, Hertz and Charlton (1989) demonstrated that husbands exhibited feelings of frustration, guilt, and neglect over their shifts, whereas their wives viewed the shifts as interfering with companionship and were disillusioned with married life. Under such circumstances, it may be that interaction assumes a pattern of one partner demanding more engagement and the other exhibiting avoidance through withdrawal, thus resulting in relationship dissatisfaction (Roberts 2000).

Hostile exchanges may also arise as a result of a physically exhausted and frustrated partner, which is a strong predictor of partnership dissatisfaction and divorce (DeMaris 2000). Longitudinal studies have confirmed this causal link, showing that hostile, negative, or indifferent behavior both erodes marital satisfaction and increase the chances of dissolution (Matthews et al. 1996; Roberts

2000). This leads to the first hypothesis: *nonstandard schedules reduce the level of partnership quality*.

We also anticipate a gender-specific effect of nonstandard schedules. Wight et al. (2008) showed that when one partner works nonstandard shifts, a couple's time together often does not overlap. That lack of overlapping could pose a problem for relationships, particularly in a context such as The Netherlands. This is because The Netherlands is predominately a male-breadwinner society, where women are responsible for the bulk of household duties, such as child care and meals (Mills et al. 2008). Women who work evening or night shifts go against the norm because they leave their partner alone to "fend for himself," prepare his own meals, and engage in the primary care of children (e.g., preparing meals, bathing, bedtime). Because women who work nonstandard schedules often place their male partners in a role that is generally atypical for Dutch men, we anticipate that they will experience higher levels of conflict and dissatisfaction. This concurs with a recent study by Maume and Sebastian (2012), who concluded that women remain largely responsible for family life irrespective of work schedules. Thus, the second hypothesis is that *the negative impact on partnership quality is stronger when woman works nonstandard schedules*.

Previous research has established that different types of nonstandard schedules have diverse consequences on individual, family, and social life (White and Keith 1990) as well as health (Fenwick and Tausig 2001). In particular, night shifts have more negative effects (Davis et al. 2008) because they disrupt the biorhythms and "socio-rhythms" of workers, who may become out of sync with their family, friends, institutional arrangements, and leisure activities. Weekend work may also be disruptive, but it has been shown to affect families in a more modest way (Presser 2003). Thus, the third hypothesis is that *the negative effect of nonstandard shift (evening, night, and varying schedules) work on partnership quality is stronger than the effect of nonstandard day (weekend) work*.

Nonstandard schedules not only have negative repercussions but also can create synergy between multiple roles. This builds on the work of Voydanoff (2004), who argues that "resources associated with one role enhance or make easier participation in the other role". It also echoes Presser's (1984) research on the reciprocal relationship between family characteristics, which affect schedules, and schedules that affect family relationships (Presser 1986). Nonstandard schedules can be a resource to enhance participation and satisfaction in both paid employment and family roles, but this is possible only with partner support, which has been shown to have a significant link with marital functioning. Higher levels of partner support can reduce the potential role of conflict for those in nonstandard schedules, which leads to the fourth hypothesis: *higher levels of partner support will diminish the negative effect of nonstandard schedules on partnership quality*.

We also anticipated a gender-specific effect and a more complicated moderation effect (in the form of a three-way interaction). We expected that both gender and partner support moderated the effect of nonstandard schedules and that, in turn, gender moderated the effect of partner support. The fifth hypothesis is that *the effect of partner support on the relationship between couple's work in nonstandard*

schedules and partnership quality will vary by gender, which will be stronger for women than men. In other words, women who work nonstandard schedules and have more support from their partner will experience a less negative effect (i.e., better relationship quality) than will men in the same situation.

Nonstandard schedules are often related to the managing of child care (Le Binah and Martin 2004), with women scheduling work hours around the family (Presser 1986) and couples engaging in tag-team parenting (see also Chap. 3 for The Netherlands). Most studies show higher levels of stress, guilt, and depression among parents, particularly mothers (Davis et al. 2008; Joshi and Bogen 2007; Perry-Jenkins et al. 2007; Strazdins et al. 2006). Other studies find either no effect or even a positive effect of nonstandard schedules on parents' relationships (Barnett et al. 2008; Han and Waldfogel 2007). Women's nonstandard schedules have also been shown to increase fathers' involvement in child care (Le Binah and Martin 2004; Wight et al. 2008) and improve the monitoring of adolescents (Han and Waldfogel 2007).

The broader literature shows that, although young children increase the stability of relationships, they decrease overall relationship quality (Waite and Lillard 1991). Tag-team parenting may add a further strain by increasing time spent alone with children at the expense of other activities, such as sleep, leisure time, and couple time (Wight et al. 2008). On the basis of that research, an initial hypothesis is that individuals with very young children will experience a more negative impact of nonstandard schedules on their relationships than will those with older children. As discussed previously in relation to the second hypothesis, when women work nonstandard schedules, it often means that they leave their partner alone to care for the children. Given that this is relatively unconventional in the Dutch context, we predict that *the negative impact of young children on the relationship between nonstandard schedules and partnership quality will vary by gender, which will be stronger for women than men.*

The majority of studies mentioned here included additional controls, including partner's age, education, socioeconomic status, duration of partnership, and number of children, which we also control for in our analysis.

4.3 Data and Methods

4.3.1 Data

The quantitative data are taken from the first wave of the NKPS (2002/2004). Our sample was restricted to co-residential couples for which at least one of the partners was in paid employment. There was a slight underrepresentation of partners reporting poor relationship quality (Dykstra et al. 2004), but because of high response levels, we did not anticipate serious bias. For the analysis we were left with an effective sample of 2,820 couples. Of all main respondents in the sample,

1,226 (43.5 %) were men and 1,594 (56.5 %) were women. We did not observe any significant, sample-biased gender differences among the main socioeconomic (age, education, socioeconomic status), family (presence of children, number of children, age of youngest child), and partnership (perceived partnership conflict and dissatisfaction, duration of partnership, partner) characteristics.

The qualitative data were taken from an NKPS mini-panel (February 2006). For the analysis we use 34 couple interviews. The questions of semi-structured interviews were based on gaps, or causality questions, that arose from previous research and the quantitative analyses. Respondents were asked detailed questions about employment, disadvantages and advantages of nonstandard schedules, strategies, their vision of a good relationship, their own relationship, their relationship history and process, and conflicts or tensions in the relationship.

4.3.2 Measures

The level of partnership conflict and partnership dissatisfaction operationalizes the concept of *partnership quality*. We examined both measures because they measure different partnership dynamics (with a correlation of 0.45). Partnership conflict measures the level of negative behavior and reciprocity in relationships via a four-item scale ($\alpha = 0.70$) on frequency of heated discussions, incessant reproaches, withdrawal from talking, and whether arguments get out of hand. Partnership dissatisfaction is a broader measure with a four-item scale ($\alpha = 0.95$) that asks not about negative relationship behavior but more generally about whether the partnership is a good one, makes one happy, is strong, and is stable. Beyond those quantitative measures, the qualitative data explored the nature and anatomy of conflicts and expectations and perceptions of partnership quality.

Partner support. Partner support was measured using a five-item scale ($\alpha = 0.84$) of level of support received from the partner in terms of career decisions, worries and health problems, leisure and social contacts, and practical and personal matters.

Work hours and schedules. Nonstandard schedules are constructed from the working hours of the week prior to data collection. For constructing the nonstandard schedule measure, we use the 'majority'-definition discussed in Chap. 1. We differentiate between nonstandard shifts (fixed evening shift, fixed night shift, varying schedules) and nonstandard days (work in weekend days). The category of fixed day schedule workers therefore includes only those who work exclusively on weekdays. In the first part of the analysis, single categories of nonstandard shifts are used, for later analysis where couples' schedule combinations are used, the different shift types are collapsed into one category.

Couples' working schedule combination. Couples' working schedule combination is measured using the household type variable introduced in Chap. 1 and applied already in Chap. 3. It includes three dimensions: what schedules are worked (working nonstandard shifts, working nonstandard days, working standard schedules); how many hours are worked (no work when working less than 12 h a week,

part-time when working 12–35 h a week, full-time when working more than 35 h a week) and how schedules are combined between partners (48 different combinations collapsed to 13 main combination categories).

Number of paid employment hours. Nonstandard schedules are often related to reduced employment hours. For that reason, we included part-time employment as employment for 13–35 h a week. We measured no or limited paid employment as working 0–12 h a week and full-time employment as 36 or more hours a week.

Presence and age of children. We also included presence and age of children in the model in the form of a continuous variable that measures the age of the youngest child living the household. We also controlled for individuals who had no children.

Control variables. The controls included in the models are partners' mean age and education (in years), socioeconomic status of the household (measured on the International Socio-Economic Index) (see Ganzeboom et al. 1992) and duration of the current partnership.

4.3.3 Analytical Techniques

Most respondents reported low levels of partnership dissatisfaction and conflict, which resulted in dependent variables with limited variability and a highly left skew. For that reason, we used an ordered logit regression model rather than a binary one to avoid losing information. Another advantage is that the model is not sensitive to variable distributions in the way that many other regression models are (Long 1997). We also checked for the parallel regression assumption, which our models did not violate. Using the couple data, we ran separate models for men and women to measure the impact of the explanatory variables separately on partnership conflict and dissatisfaction. To test for differences between men and women, we ran additional models that interacted each variable with gender (more precisely women) to determine whether there was a significant difference between women's effects and men's effects. Column "Diff" shows whether the difference was significant; detailed interaction estimates are available on request.

The qualitative analyses combined narrative and correspondence analysis to visualize relationships between individual characteristics and responses. The narrative analysis involved close readings of the text by first defining general categories (e.g., negative impact of schedules) and then investigating the relationship between categories with respondent characteristics (e.g., gender) (Strauss and Corbin 1990). This detailed reading allowed us to isolate narratives that exemplify certain points or associations.

We then developed formal coding procedures using three separate coders. Each coder first independently created a coding scheme. We then met to discuss and create a comprehensive scheme. Interviews followed a semi-structured format, which resulted in coding that emerged along the interview lines and did not markedly differ between coders. The data were then coded in the program Qualitative Data Analysis

(QDA) Miner (Peladeau 2007), where it was also possible to check for inter-rater reliability between coders, which was high. In the next stage of analysis, we engaged in the summarizing technique of correspondence analysis. Correspondence analysis is a descriptive technique representing the relationship between the rows (e.g., the type of shift) and columns (e.g., negative impact of nonstandard schedules on relationship) of a two-way contingency table in a joint plot, often referred to as a correspondence map. For example, we examined the relationship between the type of shift by the positive or negative impacts on one's relationship and the age of children by the reason to work nonstandard schedules. This analytical approach, developed by Benzecri (1973), reduces the complexity of the coded categories and shows their association and clustering in a visual matrix, which enhances the interpretation of data (figures available on request).

4.4 Results

4.4.1 Nonstandard Schedules and Partnership Quality

Table 4.1 shows the results of the regression analysis for partnership conflict (left-hand columns) and partnership dissatisfaction (right-hand columns) (the "Diff." column shows whether there was a significant gender difference). We had expected that nonstandard schedules would reduce partnership quality and that the negative effect would be stronger for women than for men.

Hypothesis 1 received mixed support in that only women working in evening shifts perceived more conflict in the relationship and women working varying hours were more dissatisfied with their relationship. For men, the partnership quality is reduced—more precisely an increase in dissatisfaction with the partnership—when working in the weekends.

The findings presented in Table 4.1 also provide some support for hypothesis 2. The increase of partnership conflict for women who worked fixed evening shifts fits with our expectation that women's absence during one of the peak child care times lowers partnership quality. In the case of men, working in the weekends had a negative effect on men's satisfaction with the partnership, while in case of women partner's weekend work decreased partnership dissatisfaction. This concurs with a study by Hook (2012) who found that men who worked on the weekend often did not recover lost time on weekdays, since weekend work was often a symptom of overwork.

A related hypothesis predicted that the negative correlation of nonstandard shift work on partnership quality would be stronger than the association of nonstandard day work received only mixed support. Nonstandard shift work, and more precisely evening work, tends to have a more negative impact on partnership quality in the case of women, whereas weekend work affects more likely men.

The analysis of the main effects of nonstandard shift and nonstandard day work on partnership quality controlled for the presence and working schedule of the

Table 4.1 Summary of ordered logistic regression analysis for variables predicting the perception of partnership conflict and dissatisfaction with the partnership for men and women

	Partnership conflict					Partnership dissatisfaction				
	Men		Women			Men		Women		
	e^B	*Sig Wald*	e^B	*Sig Wald*	*Dif*	e^B	*Sig Wald*	e^B	*Sig Wald*	*Dif*
Respondent's employment										
Not/limited employed	1.24	1.06	0.90	0.41	*	1.25	0.95	0.79	1.67	*
Part-time employed	1.39**	4.54	0.90	0.64	**	0.95	0.09	1.03	0.04	
Respondent's schedule										
Fixed evening shift	1.39	0.91	1.75**	4.87		1.42	0.87	0.93	0.07	
Fixed night shift	1.66	0.55	0.94	0.03		0.88	0.03	0.58	1.50	
Hours vary	1.46	1.04	0.88	0.16		1.07	0.02	1.69*	2.62	
Weekend employment	1.03	0.04	0.96	0.07		1.30*	3.09	0.91	0.27	
Partner's employment										
Not/limited employed	0.91	0.29	1.76**	7.23		0.72*	2.75	1.14	0.34	
Part-time employed	1.18	1.17	0.97	0.06	**	1.02	0.02	0.99	0.01	
Partner's schedule										
Fixed evening shift	0.89	0.14	0.78	0.89		1.39	0.96	1.23	0.53	
Fixed night shift	0.91	0.03	1.58	1.32		0.43	1.92	1.25	0.26	
Hours vary	0.96	0.01	1.52	1.57		0.95	0.02	1.24	0.33	
Weekend employment	0.96	0.06	1.03	0.05		1.23	1.11	0.77**	3.69	**
Nagelkerke Rsq	0.11		0.13			0.27		0.35		
N	1,219		1,586			1,219		1,586		

Source NKPS 2002-4; Authors' calculations

Note Sample selection: co-residential partners where at least one of the partners is working min. 12 h a week. Controls are partners' mean age, mean education, socioeconomic status, duration of current partnership; omitted from the table are no children, age of youngest child, partner's support. eB = exponentiated B. Dif—indicates the statistical significance in differences between the coefficients in the models for men and women of respective item/row. Thresholds omitted from the table. Employment and schedule type coded as dummies. For both men and women, employment reference is full-time employment (more than 36 h a week); schedule reference is working fixed day shifts in weekdays only. *p < 0.05. **p < 0.01. ***p < 0.00

partner. Still, it did not allow us to understand the way partners' schedule combination affect partnership quality. Even when some schedule types may have had a systematic (negative) impact on partnership quality, it could have been the case only in combination with some schedule types but not with others. In other words, in some schedule combinations the negative impact of nonstandard schedule work may become marginal.

The findings of the regression analysis on the impact of couples' schedule combinations on partnership quality presented in Table 4.2 showed that the impact of nonstandard work schedules on partnership quality was even further reduced when analyzed as a schedule combination of the two partners. Conflict levels in the partnership increased only for men when they were working in the weekends while the partner was working part-time in standard schedules. For women, the same combination reduced perceived partnership dissatisfaction. Partnership conflict was also lower for women when they worked full-time standard schedules while their partner worked in a nonstandard day schedule. Although some of the weak effects could be maybe explained by a small number of cases in schedule types such as shift work, still the general impact of nonstandard schedule work on partnership quality seems systematically rather modest.

We then turned to the qualitative interviews to understand why nonstandard schedules, and particularly night shifts, did not appear to have the negative impact on partnership quality, as had been found in previous research. The first explanation was that working regulations, conditions, and subsequent perceptions of nonstandard schedules for Dutch workers were not overwhelmingly negative. Individuals who worked for the police and medical services, for instance, discussed receiving extensive training and counseling about the impact of nonstandard schedules on family life. Respondents mentioned agreements such as the five-shift schedule; the senior regulation, under which workers older than 55 years no longer are required to work night shifts; labor regulations; and higher pay. The five-shift schedule—rotating shifts between morning, afternoon, evening, and night shifts, followed by 4 days off—was a recurrent topic of discussion. A factory worker at an energy plant described how the introduction of the five-shift schedule brought clarity and regularity to the extent that he could calculate his schedule until the day that he plans to retire in March 2033. Pay was also important:

> [Shift work] is perfect for me. In terms of income, freedom, the days that you have free. I find it ideal …. In the nightshifts it is all calculated in. Your wage is adjusted. Because we are in the five-shift system, we get a 90 % bonus. Someone in the three-shift system gets I think around 20 % (Male, process operator in a laboratory).

A police officer maintained that the increased work regulations he experienced over the past few decades were so protective that it impinged on his work:

> A big problem is that the new work regulation law strangles us. It says very strictly that you can only work so many shifts and that you must have so many free hours. Before we just had that you worked 10 days on and 10 days off. Actually quite ideal, perfect, because in those 10 days you could finish your work. Now you usually have 3 or 4 days for your research, which you can never finish.

Table 4.2 Summary of ordered logistic regression analysis for variables predicting the perception of partnership conflict and dissatisfaction with the partnership for men and women

	Partnership conflict					Partnership dissatisfaction				
	Men		Women			Men		Women		
	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif
Couples' work schedule combination										
1 - Male NW; Female NS shift/day PT/FT	0.99	0.00	2.38	1.70		1.38	0.24	1.52	0.34	
2 - Male NW; Female S PT/FT	2.04*	2.77	2.25**	4.87		0.78	0.24	0.55	1.90	
3 - Male NS shift/day PT/FT; Female NW	0.85	0.21	0.83	0.44		0.94	0.02	0.87	0.20	
4 - Male S PT/FT; Female NW	1.00	0.00	0.97	0.03		0.87	0.26	0.78	1.24	
5 - Male/Female NS shift/day PT/FT	0.63	1.57	1.20	0.34		1.44	0.81	0.71	0.92	
6 - Male NS shift PT/FT; Female S PT/FT	0.91	0.03	0.85	0.21		1.42	0.29	0.67	0.79	
7 - Male NS day PT/FT; Female S PT	2.45**	4.84	1.33	0.86		1.47	0.78	0.49**	3.89	**
8 - Male NS day PT/FT; Female S FT	1.04	0.01	0.44*	2.86		1.39	0.56	0.91	0.03	
9 - Male S PT/FT; Female NS shift PT/FT	1.40	0.70	1.22	0.36		0.90	0.05	0.67	0.94	
10 - Male S PT/FT; Female NS day PT	1.44	0.56	0.55	2.27		0.39	2.61	0.60	1.36	
11 - Male S PT/FT; Female NS day FT	0.99	0.00	1.06	0.02		1.28	0.21	0.77	0.27	
12 - Male S PT/FT: Female S FT	0.81	0.57	0.92	0.13		1.32	0.82	0.79	0.81	
13 - Male S PT/FT; Female S PT (Ref)										
No child	0.75*	2.71	0.74*	3.52		0.66**	3.92	0.71*	3.49	
Age of youngest child	0.98*	2.78	0.98**	3.88		0.97*	3.35	0.99	1.24	
Partner's support	0.49***	10.83	0.32***	43.22	*	0.09***	92.37	0.08***	158.24	
Child's age*Schedule										
*Age*comb1*	1.00	0.00	0.99	0.06		1.00	0.01	0.99	0.18	
*Age*comb2*	0.98	1.23	0.97	2.52		1.04	2.42	1.02	1.06	

(continued)

Table 4.2 (continued)

	Partnership conflict					Partnership dissatisfaction				
	Men		Women			Men		Women		
	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif
*Age*comb3*	1.00	0.06	1.02	1.37		1.00	0.04	0.98	0.65	
*Age*comb4*	0.99	0.55	0.99	0.25		1.00	0.02	0.99	0.16	
*Age*comb5*	1.04	1.87	0.99	0.07		1.01	0.05	1.02	0.68	
*Age*comb6*	1.07	1.48	1.04	1.44		0.98	0.15	1.02	0.30	
*Age*comb7*	0.96*	2.92	0.96*	3.06		1.02	0.57	1.03	1.08	
*Age*comb8*	1.03	0.89	1.08	2.23		1.06*	2.94	1.02	0.10	
*Age*comb9*	0.98	0.34	0.98	0.48		1.06*	3.65	1.01	0.18	
*Age*comb10*	0.98	0.55	1.02	0.66		1.08**	5.32	1.01	0.20	
*Age*comb11*	1.03	0.34	0.99	0.04		0.99	0.03	0.98	0.31	
*Age*comb12*	1.03	2.25	1.00	0.00		0.98	0.45	1.01	0.32	
Support*Schedule										
*Support*Comb1*	1.01	0.00	0.25**	4.01		1.11	0.02	0.57	0.54	
*Support*Comb2*	0.41*	2.92	1.03	0.01		0.71	0.35	0.60	1.12	
*Support*Comb3*	1.96	2.73	1.45	1.38		2.43**	3.95	2.02**	4.17	
*Support*Comb4*	0.87	0.21	0.87	0.30		0.87	0.14	0.94	0.05	
*Support*Comb5*	0.49	1.83	1.00	0.00		0.95	0.01	0.80	0.20	
*Support*Comb6*	0.69	0.13	0.81	0.18		0.52	0.26	0.49	1.52	
*Support*Comb7*	0.58	1.15	0.90	0.07		1.45	0.48	0.78	0.34	
*Support*Comb8*	0.66	0.53	0.87	0.03		1.12	0.03	0.67	0.15	
*Support*Comb9*	0.96	0.00	0.47	2.32		2.48	1.91	0.31*	3.55	**
*Support*Comb10*	0.29**	3.69	2.45*	3.37	***	0.55	0.63	2.53*	3.16	*

(continued)

Table 4.2 (continued)

	Partnership conflict					Partnership dissatisfaction				
	Men		Women			Men		Women		
	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif	e^B	*Sig Wald*	e^B	*Sig Wald*	Dif
*Support*Comb11*	0.59	0.48	1.16	0.06		0.48	0.61	0.48	0.76	
*Support*Comb12*	0.43*	3.39	1.00	0.00		1.11	0.04	1.06	0.02	
Nagelkerke Rsq	0.13		0.15			0.29		0.36		
N	1,219		1,586			1,219		1,586		

Source NKPS 2002-4; Authors' calculations

Note Sample selection: co-residential partners where at least one of the partners is working min. 12 h a week. Controls are partners' mean age, mean education, socioeconomic status, duration of current partnership, partnership dissatisfaction (in the model about conflict) and conflict (in the model of dissatisfaction), no children (omitted from the table). e^B = exponentiated *B*. Dif—indicates the statistical significance in differences between the coefficients in the models for men and women of respective item/row. Thresholds omitted from the table. Employment and schedule type coded as dummies. For both men and women, employment reference is full-time employment (more than 36 h a week); schedule reference is working fixed day shifts in weekdays only. *$p < 0.05$. **$p < 0.01$. ***$p < 0.00$

In comparison to previous accounts of such jobs in the U.S. literature, Dutch workers described some night and rotating shifts as physically challenging, but they rarely—if at all—mentioned bad working conditions or poor economic benefits.

From the correspondence analysis, we were also able to isolate groups of night-shift workers: the love-it-or-leave-it groups (i.e., left or loved working such schedules) and the involuntarily trapped groups. The love-it-or-leave-it group provides a second explanation for the non-effect of nonstandard schedules. It may be a selection effect related to who remained or left certain types of nonstandard schedules by the time of the interview. The qualitative interviews revealed more intricate work histories with considerable variation in different shifts and days over time. Those who abhorred the night shift often found a way to leave it and engage in more varied shift work, to work evenings only, or to minimize such shifts. Such respondents worked night shifts and actively worked to leave them because of health, sleep, and psychological problems, as well as dissatisfaction with the high levels of irritability among their family members. A female nurse who switched from rotating shifts to only evening and day shifts after 19 years describes the night shift this way:

> If you have never done it, it is difficult to describe, but you always have a point during the night shift, I always say, that you have the idea that you are dying.

The qualitative interviews supported our hypothesis that night shifts have a negative impact, and they provided a better understanding of the weak effect of such shifts. It may be that individuals leave them before partnership conflict or dissatisfaction emerges.

There were also workers, however, who loved nonstandard schedules, actively pursued such schedules, and related employment during such shifts to relaxed work conditions and freedom. A male factory worker commented:

> During the night, the day and contract staff is all gone. You are just there with your colleagues with no interruptions and no hassle. That is beautiful … You have the freedom to do what you like, no hassle.

These workers often focused on the advantages of having more autonomy, being free during times when others work, and avoiding traffic jams and busy shops. They also reported more positive outcomes of nonstandard schedules, such as being able to help more in the household and engage in more activities with their children and partner. This group therefore could contribute to the lack of negative effects of night shifts that we found.

The last group appeared to be involuntarily trapped in night shifts, a complaint that we heard from lower educated and manual workers who had fewer alternative employment options. A male Turkish factory worker who had worked different types of nonstandard schedules for more than 21 years described the night shifts and shift work as something he wanted to escape but had difficulty doing so because of the economic benefits:

> The night shift breaks a person. Really, I have older colleagues who work three different rotating shifts, but they can't bear the night shifts. That's why I say to my son, get your diplomas and study hard so that you don't have to work in shifts to earn a decent wage.

Correspondence analyses (available on request) showed a clustering of responses for night-shift workers related to health problems, tiredness, and irritability. Those who worked varying hours reported a time crunch that resulted in more stress, limited leisure activities and time for friends, and less time with their partner and children.

Contrary to the physical complaints of night-shift workers, those with shift work and varying schedules focused almost exclusively on logistical issues related to arranging child care and activities, particularly when schedules varied from week to week. A female home care worker whose husband is a factory shift worker commented:

> If I had to start at 7 a.m. and my husband had to start at 6 a.m. in Deventer, I needed to bring [my child] to the neighbors at 6 a.m. and then needed to ask. 'Will you make sure that she gets to school at 8:30?' And if your child is sick? What do you do then? That was just very difficult.

A third potential reason for the lack of a strong negative impact of nonstandard schedules is that couples and families develop effective communication and coordination strategies. Couples often used a joint message board, shared a family agenda, or left voice messages and sent text messages. A nurse with rotating shifts characterized her relationship as an "answering machine relationship," a strategy the couple developed to coordinate and hear each other's voices each day. Respondents often made clear appointments with each other to purposely ensure that they spent time together. One couple, both of whom worked nonstandard schedules, found this particularly important after they realized after several months that they had both been feeding the fish. Others suggested that, because they spent less time together, they actually cherished their time together more. Such couples positioned freedom as a central feature of a good relationship.

4.4.2 The Role of Partner Support

Two additional expectations were that high levels of partner support would diminish the negative effect of nonstandard schedules on partnership quality, which would have a stronger effect for women. When partner support was high, the levels of both conflict and dissatisfaction decreased, which provides support for the initial hypothesis. We also obtained support for our second expectation. Turning to the interactions at the bottom of Table 4.2, we observed that the level of partner support varied by partner schedule combination. When women worked in nonstandard shifts while their partners worked standard schedules (schedule combination 9), for women receiving partner's support reduced the negative impact of this schedule combination on partnership dissatisfaction. Here, we also found a significant

difference between men and women (see "Diff." column, Table 4.2). In the schedule combination where women worked in weekends and men in standard schedules (schedule combination 10), the positive support effect (in terms of the sign of the effect) was even stronger, which was opposite for men. Further scrutiny of the quantitative data showed that men's weekend work was often related to overtime or shift work with substantially more hours, whereas women's weekend work was fewer hours and arranged around her partner and family. Partner support turned out to be influential also in the combination where the male partner was working nonstandard schedules while the female partner was not working, indicating a higher chance of dissatisfaction for male and female partners in these schedule combinations.

The interviewees echoed the importance of partner support. A man who had been divorced since the time of the first survey related weekend work and a general lack of understanding and support to the demise of his marriage:

> I had a relationship where my wife was always home, she didn't work and she always said 'You have to work again, again a late shift,' and then the weekend of course. Spending a nice weekend together … no, you needed to work again … There was a lack of understanding that was difficult at times.

Men who were the main breadwinners also referred to problems with weekend work. One restaurant worker who works 7 days a week said,

> The children hate that I have to work in the weekends. But that's part of it. My wife also hates it, especially if I have the afternoon shift in the weekend.

High levels of partner support not only increased partnership quality but also weakened the potentially negative effects of nonstandard schedules.

4.4.3 Presence of Young Children

The final set of hypotheses predicted that individuals with young children would experience a more negative impact of nonstandard schedules than those with older children, and that this would be stronger for women. Looking first at the main effects in Table 4.2, we found that the age of the youngest child had a significant, negative effect on relationship conflict for men and women and on relationship dissatisfaction for men. In other words, men and women experienced more relationship conflict when children were very young.

The interaction effects of the age of the youngest child and the partners' schedule combinations provided mixed support for our general expectation and more support for our gender hypothesis. The negative impact of schedule combination where the male partner worked in the weekend and the female partner in part-time standard schedule (combination 7) was significantly reduced with the increasing age of the youngest child. At the same time, men experienced more dissatisfaction when having young children and working in the weekends while the partner was working

full-time standard schedules. Partnership dissatisfaction increased also for men when they had young children and their partner was working nonstandard shifts (combination 9) or nonstandard days (combination 10).

The qualitative interviews provided a nuanced understanding of how the age of children affected couples, why they engaged in tag-team parenting, and how doing so affected their own relationship. First, couples reported using nonstandard schedules as one of the only feasible means of work—family reconciliation. One female nurse stated:

> I don't think that it is possible to combine care and regularity.

A police officer called the combination of regular work times and child care an "insane, chaotic option." A correspondence analysis (not shown) showed that those with young children reported using nonstandard schedules as a way to spend more time with children; avoid institutionalized day care; and for men, to actively engage in child care.

A second finding was the recurrent narrative of employed mothers who had a strong desire to be perceived as a full-time care-giving mother. A female nurse and mother of two deliberately chose night shifts to avoid her children remaining at school over the lunch hour and participating in any after-school care, and to maintain the perception of being a good at-home mother:

> An advantage is that I see the children over the entire day, regardless of the fact that I work … at night there is no conflict since they are sleeping while I work. During the day I am still there in a different way, even if I am sleeping … It is absolutely wonderful because at the school they ask if I even work because I am always at school you know?

A third prominent narrative of men (and their partners) was that men with young children reported working varied or flexible hours to engage in more care duties, primarily bringing their children to school or other activities. This was related to the previous finding that men who worked varying hours reported reduced partnership conflict. When women worked nonstandard schedules, men (and their partners) discussed how fathers engaged in more household and care-giving activities. One woman with rotating shifts and two young children reported:

> He doesn't mind helping in the house at all. He generally does the ironing; it is ideal … If I work the night shift, then I do absolutely nothing, then he does everything, the washing, the ironing. He doesn't mind; he actually loves the weekends when he gets to be alone with the boys.

We found a final salient difference in the reasons associated with working nonstandard schedules between those with and without children. Whereas parents almost exclusively mentioned care-giving duties, individuals with no or older children referred to personal reasons such as freedom, flexibility, and the desire to avoid busy roads and shops. Busy shops and traffic jams are a real issue in The Netherlands, which has one of the highest population densities in Europe (397 persons per square kilometer compared to 33 persons per square kilometer in the

United States). The fact that most shops are only open during standard daytime hours results in extreme peaks of busy periods on Saturdays and between 5 and 6 p.m.

4.5 Discussion

In this chapter we applied a mixed-method approach to examine the impact of nonstandard schedules on partnership quality (level of conflict and dissatisfaction) on partnerships in The Netherlands. The first key finding was that contrary to previous research results (Davis et al. 2008; Perry-Jenkins et al. 2007; Strazdins et al. 2006; Weiss and Liss 1988; White and Keith 1990), there was not any overwhelmingly negative effect of nonstandard schedules on partnership quality. Only fixed evening shift and schedules with varying hours had a clear impact on relationship quality. The results lend support to more recent findings that show a weak impact or even a positive effect of nonstandard schedules on relationships (Barnett et al. 2008; Han and Waldfogel 2007).

A second major finding was that schedules with varying hours or fixed evening shifts had a negative impact on women's relationship quality while no significant impact on men's relationship quality. Such schedules increased partnership conflict and relationship dissatisfaction for women but did not affect men. Men perceived more conflict when working in the weekends while their partners were working in standard times only. The fact that men experienced higher conflict when they worked in the weekends is supported by the recent research of Hook (2012), who using time-use data found that fathers in the UK who engaged in weekend work did not recover lost time with their family on the weekends since they were often engaged in overwork. As opposed to previous studies that have focused on women adapting their schedules around other family members (e.g., Presser 1986), Dutch men with young children appear to work flexible hours to help with child care and other household duties. Many studies have focused exclusively on mothers' or women's schedules (e.g., Barnett et al. 2008; Presser 1986) and have not examined detailed types of nonstandard shifts (e.g., Davis et al. 2008) nor the schedule combinations that partners work, thus potentially missing the types of findings we have here. Future research should focus on better measurements of nonstandard schedules, recently highlighted by Dunifon et al. (2013).

This is related to our third main finding: The divergent, gendered impact of nonstandard schedules is tied to the presence of young children. Parents reported adapting their schedules to engage in tag-team parenting to ensure that one parent was home with the children. Fathers who adapted their schedules and those who had partners who worked nonstandard schedules reported being more involved in child care, which supports previous findings (Le Binah and Martin 2004; Wight et al. 2008). Men were, however, less satisfied in their relationships when they had young children and their partner was engaged in nonstandard schedules, which

could be related to violation of 'gender norms'. This also relates to findings by Maume and Sebastian (2012) who showed that working late shifts reduced martial quality among men but that job-family spillover was the important factor for women.

This is related to the final major finding of this study. Partner support is a key factor in enabling individuals to work nonstandard schedules and maintain good relationships. Men who worked in nonstandard shifts and days and received less partner support experienced more dissatisfaction in their relationship. Women who worked in nonstandard shifts were more satisfied with their relationship when receiving support from their partner.

Future research might extend this study by using longitudinal data. This would allow us to examine how nonstandard schedules and the level and impact of such schedules on partnership quality fluctuate over time. One way to do it would be to examine longer-term relationship outcomes, such as dissolution of non-marital cohabiting unions or divorce, which will be the central topic of investigation in the next chapter (Chap. 5).

Regarding the 'universality' of the relationships we found, in line with previous literature, we established that certain types of nonstandard schedules (varying schedules, evening shifts) are detrimental to relationship quality, and that this effect was stronger for women. We also demonstrated that women's nonstandard schedule work in combination with having young children could be detrimental to partnership quality (Perry-Jenkins et al. 2007). In the absence of partner support, men's weekend work negatively affected relationship quality (Davis et al. 2008). Yet there were many other findings that did not hold in the Dutch context and resulted in new insights. First, there was no consistent significant, negative effect of night or evening shifts on partnership quality. This is likely because of the more favorable working conditions and labor market regulations in The Netherlands and more stringent opening hours, which mean that only a limited amount of services are offered around the clock. The high number of nonstandard jobs in the personal service industry (Presser 2003) and the 24/7 economy is apparently not universal. Interviews also revealed that people who did not like night or rotating shifts actively left them (and had the protection and option to do so), whereas others who liked the freedom and flexibility of such schedules sought them out, leaving a generally satisfied group. Manual and less educated workers had clearly negative views of night and rotating shifts; they felt trapped though relatively highly paid and protected. Collective wage agreements and employment protection legislation in the Dutch context often meant that workers in nonstandard schedules were well paid. The previous, more negative results in the United States may result from a context in which workers have less employment protection and in which more lower-paid service jobs have nonstandard schedules. This has also led to a broader focus on studying the impact of nonstandard schedules on low-income families (e.g., Joshi and Bogen 2007), who have different options and use different coping mechanisms. It is therefore important to examine the self-selection of workers who choose to participate in nonstandard schedules (see Chap. 2), which varies between countries and may influence results.

There appear to be some universal effects of nonstandard schedules, such as a negative impact on mothers with young children and the use of nonstandard schedules for tag-team parenting. But some findings did not hold, such as the lack of negative effect of night shifts, which signals that many of the "universal" effects of such schedules may not hold outside of the United States context. Thus, culture, poor working conditions, unequal opportunities, and a lack of employment protection—rather than nonstandard schedules—may hurt couples' relationships and families.

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Chapter 5
Nonstandard Work Schedules and Partnership Dissolution

Abstract This chapter examines the impact of nonstandard working schedules on partnership dissolution risk. Using panel data from the Netherlands (NKPS, N = 2,982) and the U.S. (NSFH, N = 4,919), the results shows that having at least one nonstandard schedule worker in the household increases the risk that a partnership might dissolve over time. The negative impact of employment in nonstandard schedules on partnership stability is the strongest in households where nonstandard schedules are worked in a 'desynchronized 'manner, when one partner is employed in a nonstandard and the other in a standard schedule. These types of 'desynchronized' schedules are furthermore prevalent for households with young children. Employment in nonstandard schedules increases partnership dissolution in both countries, with a weaker effect in The Netherlands, which is likely attributed to stricter working time regulations and protection against the 'unhealthy' effect of these schedules.

Keywords Nonstandard work schedules · Partnership dissolution risk · Negative impact of non-standard schedules · Desynchronized schedules

5.1 Introduction

The role that paid employment plays in the increase in separation and divorce has generally been studied with a focus on women's labor market participation (Becker 1981; Oppenheimer 1997) and the number of hours spent in paid labor (Spitze and South 1985). The few studies that examine the impact of men's employment on partnership stability focus mostly on the number of hours spent in work and its effect on partnership stability (Poortman 2005). Although there has been considerable attention on the study of *how many hours* individuals work on dissolution chances, less attention has been placed on *when* the paid labor of one or both partners takes place (Presser 2000). As discussed at the onset of this book (see Chap. 1), work outside of the home during nonstandard days and hours is prevalent

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across many societies. In the U.S., 28 % of dual-earner couples work in these nonstandard schedules and 29 % of Dutch couples have at least one spouse working in times other than a standard day schedule (Presser 2003; Mills and Täht 2010). Many couples also use nonstandard working times as a way to arrange childcare (see also Chap. 3 and Carriero et al. 2009)—while one is working, the other cares for the children. This creates a potential scarcity of partners' joint time with one another, which may in turn reduce the level of partnership happiness and increase the level of conflict and dissatisfaction (White and Keith 1990; Mills and Täht 2010) and create strain on partnership cohesion in general (Wight et al. 2008).

Previous studies that have examined the effect of nonstandard schedule work on partnership stability (Presser 2000; White and Keith 1990; Davis et al. 2008) showed an increase in partnership dissolution risk. These studies, however, have been exclusively carried out in the U.S., which is a distinct partnership and employment context. We do not know, therefore, whether the disruptive impact of nonstandard schedule work on partnership stability is a more universal influence or exclusive to the unique American case. The main research question of this chapter, therefore, is: What is the impact of nonstandard employment schedules on partnership stability? More precisely, is there a more general impact of nonstandard employment schedules on partnership stability or does the country-specific institutional context play a strong role in shaping the effect? In order to empirically examine these cross-national differences, this chapter adopts a comparative approach and compares the impact of nonstandard schedules on partnership dissolution in two disparate welfare and labor market regimes. One is the more liberal and less protected American labor market context and the other is a comparatively strictly regulated and well-protected Dutch labor market regime (Kalleberg et al. 2000; Kalleberg 2011). For this we analyze two nationally representative panel studies, examining the first and second waves of data from the Netherlands Kinship Panel Study (Dykstra et al. 2004, 2007) and the U.S. National Survey of Families and Households (Sweet and Bumpass 1996; Sweet et al. 1988).

5.2 Work Schedules and Partnership Stability

5.2.1 The Impact of Nonstandard Schedule Work on Partnership Dissolution

The primary mechanisms to understand how nonstandard employment schedules impact partnership stability is encompassed by the *time-restriction* mechanism, which consists of the 'absence', 'attachment' and 'stress' effect (for more see Presser 2000). The central idea of the *absence effect* is that being away from home due to work, especially in the case of women, in itself increases partnership dissolution risk. When women are economically active, a lack of time spent in the household and on household duties may create partnership conflict and in the long

run may increase the partnership dissolution risk (Mills and Täht 2010). A complementary argument is the *attachment effect*, which supposes that an optimal amount of pleasurable shared time is marriage-specific capital that discourages divorce (Hill 1988). Couples who work nonstandard schedules have a particularly high risk to spend less time together, which, in turn, may operate to increase their partnership dissolution risk. In addition, the strong negative physical and psychological effects of work in nonstandard schedules such as stress, tiredness and sleeping disorders (Jamal 2004) can aggravate the negative impact of nonstandard schedules on partnership relationships (Han 2005; Fenwick and Tausig 2001), creating the *stress effect*. When summarized as the first main hypothesis, we anticipate that *working nonstandard schedules increases partnership dissolution risk.*

Working nonstandard schedules often entails missing various family activities such as joint leisure time or family dinners (Täht and Mills 2012). It is particularly the case that women are still expected to be (Deutsch and Saxon 1998) but also feel (van der Lippe 2007) more devoted to family matters and when working nonstandard schedules they strongly deviate from this role. Working in these schedules means not only less time on household duties, but also not being present for occasions such as family dinners or putting children to bed in the evening. Therefore, we expect that *women's nonstandard employment schedules will have a stronger negative impact on partnership dissolution risk compared to men's nonstandard employment schedules.*

Although nonstandard schedules have the commonality that they always take place outside of the 'standard' family/couple time, there is considerable variation in the type of nonstandard schedule. In the case of night work, couples may spend less intimate time together (Mott et al. 1965), which does not necessarily need to be the case for weekend work that takes place during the day. Night work or the 'graveyard shift' is also linked to perceptions of greater spillover of stress and fatigue to the home (Davis et al. 2008; Grosswald 2003). In the case of weekend work, which often takes place during the day, there are smaller physical influences and the 'side-effects' are mostly social. Weekend work therefore has the potential to be less disruptive for marriage than night work (Presser 2003; Davis et al. 2008). This leads us to predict that *the impact of nonstandard schedule work on increasing partnership dissolution risk is expected to be more pronounced for evening/night work.*

5.2.2 The Moderating Effect of Household Composition

From the perspective of partnership cohesion, couples who are both economically active are more interested in *syn*chronizing their working schedules (Lesnard 2008), i.e., being away from home at the same time. Synchronizing employment schedules —for partners working standard as well as nonstandard times—permits more shared time and mitigates the potentially disruptive impact of nonstandard schedules.

When partners' work in *de*synchronized schedules (Carriero et al. 2009), such as one working in standard and the other in nonstandard days/hours, there are severe restrictions to shared time, which according to the attachment argument would increase partnership dissolution risk. It is therefore essential to take both partners' schedules into account when trying to understand the impact that nonstandard employment schedules have on partnership stability. Moreover, the crucial element here is not only what schedule the other partner works, but how the working schedules of the two partners are combined or (de)synchronized. Another central hypothesis of the current chapter is that *desynchronized schedules have a stronger negative effect on partnership stability than schedules which are 'in sync', even when both are worked in nonstandard times.*

The previously predicted gender-effect in one of our first hypotheses would also be plausible when employment in nonstandard times in considered by examining both partners' schedules. Traditional expectations towards woman's presence at home during the 'standard' family time translates in this case to the hypothesis that *couples where the female partner is engaged in nonstandard schedule work—both in synchronized, but even more so in a desynchronized schedule mode—face a higher risk of partnership dissolution*.

Another aspect of household composition to be considered is the presence of children. Although the desynchronization of employment schedules may be seen as undesirable for partnerships, it may be an efficient means to arrange child care (Barnett and Gareis 2007; Han 2004; Mills and Täht 2010). For various reasons (economic, cultural, etc.) partners may be not able or willing to use formal child care facilities (Portegijs et al. 2006), and having young children who require primary care at home may encourage partners to shift partly to nonstandard schedules. This leads to tag-team parenting where one partner is taking care of the children while the other is working (Presser and Cox 1997; Han 2004). Arranging child care in a desynchronized schedule manner may come, however, at the expense of other activities, including couple or joint-family time (Wight et al. 2008). While having young children in the household usually decreases the risk of partnership dissolution (Waite and Lillard 1991), we anticipate that *having (young) children makes the negative impact of partners' nonstandard schedules work on partnership dissolution risk even stronger.*

5.2.3 *Cross-National Comparison: The Role of Country Context*

Although partnerships dissolve at the couple or household level, wider contextual aspects also play a significant role in the probability of divorce (Levinger 1965). Spouses who wish to end their marriages must overcome a variety of barriers including moral or religious values, concerns about social stigma, legal restrictions,

and financial dependence on one's spouse. In other words, these barriers shape how acceptable and accessible it is to divorce within a particular society (for summary see Amato and Hohmann-Marriott 2007).

When comparing the U.S. and The Netherlands, divorce is clearly more widespread in the U.S., where the divorce rate has been increasing steadily since the 1950s up to the 1980s and remained relatively high since (Amato and Irving 2005). Moreover, over the last decades obtaining a divorce in the U.S. became less stigmatized, costly and time-consuming. In 2000, the divorce rate per 1,000 population aged 15–64 was 6.2 (Kats and Martin 2003).

In The Netherlands, which also has a liberal tolerance towards divorce (Kalmijn et al. 2004), the divorce rate compared to the U.S. is still remarkably low. In 2000, the divorce rate per 1,000 population aged 15–64 years in The Netherlands was 3.2 (Kats and Martin 2003). The lower number of divorces in The Netherlands compared to the U.S. is partially attributed to higher cohabitation and lower marriage rates of Dutch couples. In 2004, 7.6 % of all couples in the U.S. and 13.3 % of all couples in The Netherlands were cohabiters. Respectively, in 2005 the number of marriages per 1,000 unmarried women aged 15+ in the U.S. was 40.7 while in The Netherlands it was considerably lower at 22.6 (Popenoe 2008). Next to different cohabitation rates, the composition of cohabiters is very different between the two countries. In the U.S., cohabitation is more likely associated with lower social status and educational levels (Lichter and Qian 2008), which is not the case in The Netherlands (Hogerbrugge and Dykstra 2009; Manting 1996). Although cohabitation in both countries is more unstable than marriages (Binstock and Thornton 2003), American cohabiters are more likely to dissolve their partnerships than their Dutch counterparts. In this study, we examine the dissolution of both marriages and cohabiting unions.

In addition to differences in divorce rates and culture, working nonstandard schedules in the U.S. is also different to employment in these schedules in The Netherlands (for more details see Chap. 2). More lenient working time regulations and the lack of other regulatory mechanisms (collective agreements, trade unions, etc.) in the U.S. means that nonstandard schedule work are associated with a more disadvantaged labor market situation, such as lower level occupations and lower wages. The latter is not the case in The Netherlands, where work in nonstandard times is more regulated and workers of these schedules are protected against the 'unhealthy' effect of working these days and hours. Taking the differences in divorce rates and culture as well as the role and meaning of nonstandard employment schedules of the both countries into account, we anticipate that *the negative impact of working nonstandard schedules is stronger in the U.S. compared to The Netherlands.* The country-hypothesis is expected to be valid both when assessing the general effect of work in nonstandard schedules on partnership stability as well as when we consider the schedules of both partners.

5.3 Data and Method

5.3.1 Data

The Dutch data is taken from the first and second waves of the Netherlands Kinship Panel Study (NKPS) (Dykstra et al. 2004, 2007), collected in 2002/04 and 2007. During the first wave, 8,161 main respondents were interviewed. By the second wave the sample reduced to 6,091 cases, largely due to attrition of 25.4 %. The U.S. data comes from the first and second waves of U.S. National Survey of Families and Households (NSFH) (Sweet et al. 1988; Sweet and Bumpass 1996) and the data was respectively collected in 1987/88 and 1992. In the first wave, 13,007 men and women were interviewed. By the second wave, the sample was reduced to 10,005 cases, also attributed to an attrition rate of 23.1 %. As the NKPS study was designed based on the NSHF, the two data sets are to great extent comparable both in terms of study-design as well as studied items.

The sub-samples of the current study are drawn from the first wave data and consists of 18–64 years old heterosexual, married or cohabiting co-residential couples where at least one of the partners is working (for more details on sampling see Appendix Table 5.3). The analysis is restricted to heterosexual couples due to the central role of gender in discussions of the impact of employment on partnership dissolution. After excluding all invalid and missing cases, which is largely due to missing data within couple data, we were left with 2,982 Dutch couples and 4,919 American couples.

In addition to these missing cases, there was also considerable drop-out of respondents between the two panel waves. In The Netherlands this was 14.4 % (430 cases) and for the U.S., 15.7 % (771 cases) of couples from the sub-sample selection in first wave did not participate in data collection of second wave. The impact of panel attrition on the sample in the Dutch case is minor and rates are slightly higher for younger (18–30 years), single, and lower educated respondents. The return-rate of the self-completion questionnaire that contains the detailed schedule information was tested against the quality of the relationship of the main respondent to the partner and we found no significant bias (Dykstra et al. 2007). Similar conclusions about the drop-out can be drawn for the American data (Sweet and Bumpass 1996). The remainder of missing data in the (sub)sample is related to missing values in the collected data, and here the data for The Netherlands and the U.S. behave in a similar manner (see also Appendix Table 5.4).

5.3.2 Measures and Analytical Techniques

The dependent variable in this analysis is a binary variable indicating whether the co-residential partnership (marriage or cohabitation) of wave 1 is still intact or was dissolved (divorced or separated) by wave 2. We excluded partnership dissolutions

due to the death of a partner (widowhood). Since the time difference between two data collection points (wave 1 and wave 2) is around four years, our statistical assessment is made for partnership dissolution probability within the four year period. In the Dutch data, the number of dissolved partnerships between the two waves of data collection is 109 cases (4 % of all co-residential couples in the first wave), where 52 of these cases originate from cohabiting unions and 57 from marriages. In the U.S., the number of dissolved partnerships consists of 604 cases (15 % of all co-residential couples of wave 1), where 120 are from cohabiting unions and 484 are from marriages. In line with previous findings (Binstock and Thornton 2003), we see that in both countries, cohabiting unions are more unstable. Since the levels and meaning of cohabitation and partnership dissolutions differ substantially between the two countries, the analysis always controls for the partnership type. We should also keep in mind that due to the sheer difference in number of dissolutions (105 versus 604), the analysis has considerably more statistical power in the US than in The Netherlands.[1]

All independent variables are measured at the time of first wave and the models assess how the occupation and household situation at the first time point has affected the partnership dissolution risk by the second time point. Although the data provides some information on the timing of partnership dissolution, no exact time reference is available as to when the nonstandard schedule work arrangements were entered or terminated. A strong assumption of the study therefore, is that time order dominates the causality among the events, or in other words that there is no reverse causation due to anticipation. This also means that we assume that nonstandard work schedule arrangements are rather stable, although it may be the case that people can leave or (re-)enter the schedules between the two sample waves.

The central independent variables in our analyses are nonstandard schedules, which are measured by two dimensions: *nonstandard shifts* and *nonstandard days* (for more detail see Chap. 1). In the Dutch data, these variables are constructed from the actual working hours of the *week prior* to data collection. In the U.S. data, schedules are reconstructed from the *usual* actual working hours. Due to a low number of cases, we report all shift types collapsed into one category of nonstandard shifts. Nonstandard days refer to work during the daytime taking place in shifts, whereas some or all of this work may be carried out during the weekend (i.e., Saturday and/or Sunday).

In addition to schedule type, the models also control for both *partners' employment statuses* in general which is measured as follows: not employed (not working or working less than 12 h a week); employed part-time (12–32 h a week) or employed full-time (more than 32 h a week). *Presence and age of children* are measured by number of children living in the household and the age of the youngest child. As partnership stability probability is not constant over time, the models control for *partnership duration*. Partnership duration is measured in years and

[1]Note that in binomial analysis, not the sample size, but number of successes dominates statistical power (Agresti 2002).

refers to the length of co-residential partnership at the time of the first wave of data collection. Partnership dissolution risk has been also related to socioeconomic status (White 1991; Bumpass et al. 1991), as has the risk of being employed in nonstandard schedules in different countries (see Chap. 2). All models therefore control for the *household's socioeconomic status* which is measured as a mean of both partner's statuses on International Socio-Economic Index of occupational status (ISEI) (Ganzeboom et al. 1992). The ISEI measure has been rescaled from the original 16 to 96 range to a 1–9 range.

Couples' working schedule combinations are constructed from the source variables of both partners' employment statuses and working schedules (for more details see Chap. 1). The combinations cover three dimensions: employment status (working/not working), number of hours (full-time/part-time), and schedule type (standard schedule/nonstandard shift/nonstandard day). The variety of 48 possible combinations has been collapsed into 13 different partners' working time combinations (See Appendix Table 5.5). Examining the couples' working schedule combination variable, we see that 36.1 % of Dutch and 51.9 % of American - residential couples have at least one partner in nonstandard shifts and/or days. The most prominent employment schedule combinations that also has a nonstandard schedule are: one of the partners (regardless of sex) works nonstandard schedules, while the other works a standard schedule (20.5 % of Dutch and 24.2 % of American couples); and male partner works a nonstandard schedule and female partner does not work (8.2 % of couples in The Netherlands, 14.7 % of couples in the U.S.). It is also not uncommon that both partners are engaged in nonstandard schedules at the same time (5.3 % in The Netherlands and 10.5 % in the U.S.).

Logistic regression models were estimated with partnership dissolution as a dependent variable. The impact of working schedules on partnership dissolution risk is studied both in pooled models where the data of both countries are combined and in country-specific models. Significance of the differences between the effects of the two countries is tested via a country interaction term.

5.4 Results

5.4.1 The Impact of Nonstandard Schedule Work on Partnership Dissolution

As predicted in the first hypothesis, working nonstandard schedules significantly increases the risk of partnership dissolution. The pooled model (see Model 1 in Table 5.1) of the regression analysis shows that working nonstandard schedules (both shifts and days) has a significant impact on the probability of partnership dissolution.

The negative impact of working nonstandard schedules on partnership dissolution holds regardless of whether the nonstandard schedules are worked by women

Table 5.1 Summary of logistic regression analysis for variables predicting partnership dissolution for The Netherlands and United States

	General model			Country models						
	Model 1			Model 2			Model 3			*Dif*[a]
	All			Netherlands			United States			
	B	*SE B*	e^B	B	*SE B*	e^B	B	*SE B*	e^B	
Female partner's schedule[b] (*Ref = day shift, weekdays only)*										
Nonstandard shift[c]	0.33*	0.15	1.39	−0.01	0.43	0.99	0.40*	0.16	1.48	
Nonstandard day[d]	0.23+	0.13	1.26	0.28	0.32	1.32	0.23	0.14	1.26	
Male partner's schedule[b] (*Ref = day shift, weekdays only*)										
Nonstandard shift[c]	0.25+	0.14	1.28	−0.29	0.49	0.75	0.30*	0.15	1.35	
Nonstandard day[d]	0.33**	0.1	1.39	0.38	0.26	1.46	0.32**	0.11	1.38	
Female partner's employment[b] (*Ref = full-time;*)										
Not employed[e]	−0.03	0.12	0.97	−0.12	0.34	0.89	−0.02	0.13	0.98	
Part-time employed[f]	−0.15	0.13	0.86	−0.03	0.27	0.97	−0.21	0.16	0.81	
Male partner's employment[b] (*Ref = full-time*)										
Not employed[e]	0.52**	0.18	1.69	0.73*	0.38	2.08	0.45*	0.21	1.56	
Part-time employed[f]	0.51**	0.18	1.66	0.55+	0.33	1.73	0.50*	0.21	1.65	
Age of youngest child[g] (Ref = no children)										
0–3 years old	0.1	0.12	1.1	−0.06	0.34	0.94	0.11	0.13	1.11	
4+ years old	0.29*	0.12	1.34	0.76*	0.31	2.15	0.19	0.13	1.21	+
Household mean socio-economic status[h]	−0.08*	0.04	0.92	0.04	0.08	1.04	−0.12**	0.04	0.89	
Partnership status: cohabitation (Ref = marriage)	0.75**	0.13	2.13	0.99**	0.26	2.68	0.67**	0.14	1.96	+
Partnership duration (years)[i]	−0.07**	0.01	0.93	−0.07**	0.02	0.93	−0.07**	0.01	0.93	
Country (Ref = U.S.)										

(continued)

Table 5.1 (continued)

	General model			Country models						
	Model 1			Model 2			Model 3			*Dif*[a]
	All			Netherlands			United States			
	B	*SE B*	e^B	B	*SE B*	e^B	B	*SE B*	e^B	
Netherlands	−1.10**	0.13	0.33							
Nagelkerke Rsq	0.17			0.11			0.13			
N of valid cases	5,910			2,390			3,520			

Data Netherlands—NKPS; w1 (2003), w2 (2007); US—NSFH; w1 (1987/88), w2 (1992). Author's calculations

Notes Sample: 18–64 years old, heterosexual co-residential couple, at least one works min. 12 h a week (*NL* N = 2,982; U.S.: N = 4,9191). *Dependent variable* dissolution *versus* continuation of the co-residential partnership of w1 by time of w2

Sig +$p < 0.10$. *$p < 0.05$. **$p < 0.01$

[a]statistical significance test of the country interactions

[b]coded as dummies

[c]includes fixed evening, fixed night, hours vary shifts

[d]Includes weekend day work

[e]0–12 h a week

[f]12–32 h a week

[g]age of youngest child in wave 1

[h]ISEI/10 scale based on current or previous job

[i]duration of partnership by wave 1

or men. The findings, however, do not fully support the hypothesis which predicted a stronger negative impact of nonstandard schedule employment for women. In line with the gender hypothesis, women who work in nonstandard shifts have a higher partnership dissolution risk (respective odds ratios are 1.39 for women and 1.28 for men; see Model 1 in Table 5.1). Contrary to the gender hypothesis, however, nonstandard day work increases the partnership dissolution risk more for men (respective odds ratios for men 1.39 and for women 1.26).

The gender effect also emerges when it comes to the hypothesis that predicted the higher risk of nonstandard shift work over nonstandard day work in increasing the partnership dissolution risk. This schedule type hypothesis is, however, only partly supported by the data. Here we see that it holds only in case of women, whereas for men it is employment in nonstandard days rather than shifts that have a stronger impact on partnership dissolution risk (see Model 1 in Table 5.1). A potential explanation is the disparate nature of nonstandard schedule work for men and women—especially in case of men, nonstandard day work in the weekends is strongly associated working long hours (overwork) which means that they are more often absent at home due to both longer work hours during the week and weekends. This situation means that partners have high levels of time scarcity and very limited time together.

Increased partnership dissolution risk due to nonstandard schedule work is present even after controlling for other relevant characteristics such as partnership type and duration, socio-economic status of the household and presence and age of children. We also ran an additional analysis (not presented here, but available upon request) including a covariate that measured the self-assessed partnership quality during the first wave. Also in this case, the impact of nonstandard schedules on partnership remained virtually unchanged.

5.4.2 The Effect of Household Composition

The previous analysis that focuses on only either male or female partner's working schedule ignores the fact that couples' working schedules form specific schedule combinations. It may be that the impact of different combinations on partnership dissolution risk might not be the same. The analysis of the impact of partners' schedule combinations (see Model 1 in Table 5.2) is in line with second main hypothesis, where we anticipated that having one or both of the couples employed in nonstandard schedules would significantly increase partnership dissolution risk. In fact, only two combinations out of nine that include nonstandard employment schedules show no significant impact on partnership dissolution risk. Moreover, as predicted by the second main hypothesis, stronger effects can be observed in cases where partners are clearly working 'out of sync' with one another. This occurs in the case, for instance, when the male partner works in standard schedules and the

Table 5.2 Summary of logistic regression analysis for variables predicting partnership dissolution for The Netherlands and United States

	General model			Country models						
	Model 1			Model 2			Model 3			Dif[a]
	All			The Netherlands			United States			
	B	SE B	e^B	B	SE B	e^B	B	SE B	e^B	
Schedules (Ref = Cmb10: Male S PT/FT: Female S FT										
Cmb1: Male/Female NS shift/day PT/FT	0.47**	0.17	1.6	0.48	0.49	1.62	0.46**	0.18	1.58	
Cmb2: Male S PT/FT; Female NS shift PT/FT	0.62**	0.22	1.86	0.67	0.53	1.96	0.61*	0.25	1.85	
Cmb3: Male S PT/FT; Female NS day FT	0.66**	0.21	1.93	0.98+	0.52	2.66	0.62**	0.23	1.86	
Cmb4: Male S PT/FT; Female NS day PT	0.29	0.4	1.33	0.49	0.68	1.63	0.18	0.51	1.19	
Cmb5: Male NS shift PT/FT; Female S PT/FT	0.62**	0.23	1.86	−0.49	0.78	0.62	0.78**	0.24	2.18	*
Cmb6: Male NS day PT/FT; Female S FT	0.52**	0.18	1.69	1.01*	0.47	2.74	0.46*	0.2	1.58	
Cmb7: Male NS day PT/FT; Female S PT	0.06	0.32	1.06	0.03	0.6	1.03	0.04	0.39	1.04	
Cmb8&12: Male NW; Female S, NS shift/day PT/FT	0.69**	0.2	2	0.91*	0.45	2.48	0.61**	0.22	1.84	
Cmb9: Male NS shift/day PT/FT; Female NW	0.49**	0.17	1.63	0.55	0.49	1.73	0.46*	0.18	1.58	
Cmb11: Male S PT/FT; Female S PT	0.08	0.22	1.08	0.18	0.39	1.2	−0.04	0.32	0.96	
Cmb13: Male S PT/FT; Female NW	0.03	0.16	1.03	−0.03	0.42	0.97	0.02	0.18	1.02	
Age of youngest child[d] (Ref = no children)										
0–3 years old	0.08	0.12	1.09	−0.01	0.35	0.99	0.09	0.13	1.09	
4+ years old	0.29*	0.12	1.33	0.87**	0.31	2.38	0.18	0.13	1.19	
Household mean bsocio-economic status[b]	−0.08*	0.04	0.93	0.07	0.08	1.07	−0.12**	0.04	0.89	*
Partnership status: cohabitation (Ref = married)	0.78**	0.13	2.18	1.04**	0.27	2.83	0.70**	0.14	2.02	
Partnership duration (years)[c]	−0.07**	0.01	0.93	−0.07**	0.02	0.93	−0.07**	0.01	0.93	
Country (Ref = U.S.)										
Netherlands	−1.11**	0.13	0.33							

(continued)

Table 5.2 (continued)

	General model			Country models						
	Model 1			Model 2			Model 3			Dif[a]
	All			The Netherlands			United States			
	B	SE B	e^B	B	SE B	e^B	B	SE B	e^B	
Nagelkerke Rsq	0.17			0.12			0.13			
N of valid cases	5,910			2,390			3,520			

Data Netherlands—NKPS (2002–04; 2007); US—NSFH (1987–88; 1992). Author's calculations

Note Sample: 18–64 years old population, heterosexual co-residential couple where at least one works minimum 12 h a week (*NL* N = 2,982; *US* N = 4,9191). Dependent variable—dissolution *versus* continuation of the co-residential partnership of wave 1 by time of wave 2

Sig +$p < 0.10$. *$p < 0.05$. **$p < 0.01$

[a]statistical significance test of the country interactions

[b]ISEI/10 scale based on current or previous job

[c]duration of partnership by wave 1

[d]age of youngest child in wave 1

female partner is employed in full-time nonstandard days (combination 3) and when the male partner is employed in nonstandard shifts while the female partner works standard schedules (combination 5), with respective odd ratios of 1.93 and 1.86.

Our predicted gender effect—that schedule combinations where women are in nonstandard schedules would have higher partnership dissolution probability—finds only partial support. There is a significant negative impact on partnership stability (see Model 1 in Table 5.2) both in combinations where a nonstandard schedule is worked only by male partner as well in combination when it was worked by female partner.

A more important factor in the gender effect seems to be, however, the female partner's number of working hours. Partnership dissolution risks are higher in cases where female partners were working full-time such as schedule combination 3 (male standard schedule/female nonstandard days in full-time), schedule combination 5 (male nonstandard shift/female full-time standard schedule) or schedule combination 6 (male nonstandard day/female standard schedule full-time).

Similarly, the two schedule combinations where at least one of the partners is employed in nonstandard schedules that did not show any significant effect on partnership dissolution risk were the ones with female partner working part-time: combination 7 (male nonstandard days/female standard schedules part-time), and combination 4 (male partner standard schedules/female partner nonstandard days part-time).

The hypothesis that predicted that having young children increases the already negative effect of nonstandard employment schedules on partnership stability does not receive full support. The interaction effects show that in general having (young) children and combining working schedules tends to actually reduce partnership dissolution risk. Also, the only significant interaction terms of the youngest child's age with schedule combination shows that the positive main effects actually become weaker (presented in Fig. 5.1). This is the case for schedule combinations where the male partner works nonstandard schedules and female partner is not working; and where both partners work nonstandard schedules. This effect may be due to partners working the nonstandard schedules because of children and/or childcare, and once the combined effect of children's age and partners' schedules is controlled for, main effects become less important.

We see once again that there is an increased partnership dissolution risk when there is at least one nonstandard schedule worker in the household even after controlling other relevant characteristics such as partnership type and duration, socio-economic status of the household and presence and age of children.

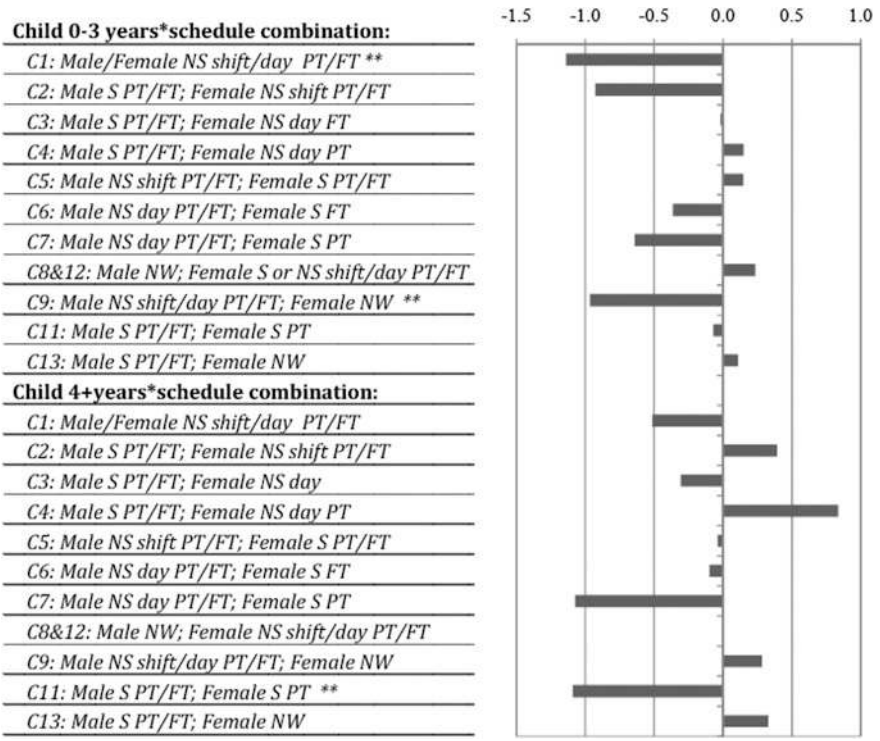

Fig. 5.1 Summary of interaction effects of partner's schedule combinations and age of youngest child on partnership dissolution risk in The Netherlands and United States, logistic regression coefficients. *Data* Netherlands—NKPS, wave 1 (2002–4) and wave 2 (2007); US—NSFH, wave 1 (1987/88) and wave 2 (1992). Author's calculations. *Note* Sample: 18–64 years old population, heterosexual co-residential couple where at least one works minimum 12 h a week (*NL* N = 2,982; *US* N = 4,919). Pooled country data; regression model controls for country, household mean ISEI, partnership status and partnership duration. Main effects on partnership dissolution *risk* Youngest child aged 0–3 = 0.44; youngest child aged 4 + = 0.46^{+}. *Sig* $+p < 0.10$. $*p < 0.05$. $**p < 0.01$

5.4.3 Cross-National Comparison: The Effect of Country Context

Next to the general trends, the analysis has been carried out separately in the U.S. and the Netherlands. The country-specific analyses (Models 2 and 3 in Tables 5.1 and 5.2) show that the general findings are partly driven by specific country patterns. The statistically significant pooled effect of nonstandard schedule work, worker's gender, and schedule type on partnership dissolution risk is presented in Table 5.1, and couples' schedule combinations presented in Table 5.2 are to great extent a U.S. finding. In the Dutch study, the general schedule effects (Model 2 in Table 5.1) as well as schedule combination effects (Model 2 in Table 5.2) are virtually absent.

The only significant schedule combination effects that clearly increases partnership dissolution risk in The Netherlands are schedule combination 6 (male working nonstandard days, female working full-time standard schedule), schedule combination 3 (male partner working standard schedules, female partner working full-time weekend schedules), and schedule combination 8 and 12 (male not working, female working any possible schedule type). One common denominator of these schedule combinations is next to nonstandard schedule work, that the female partner is working full-time. As pointed out previously, a female partner's full-time work seems to be an important risk factor for partnership instability, especially in case of The Netherlands where the majority of women (around 75 %) work part-time.

When comparing the two countries in statistical terms (using country interactions), at first sight it seems that in the Dutch case the impact of working those schedules is rather weak or even absent. However, when we engage in a closer look at the findings between the two countries, there seems to be a very similar systematic negative impact of nonstandard schedule work on partnership stability. Statistical difference between the two countries exists only for the schedule combination 5 (male nonstandard shift/female standard schedule; see Model 2 and 3 in Table 5.2)—while in the U.S. this schedule combination clearly increases partnership dissolution risk, this is not the case in The Netherlands. Part of these weak or almost absent country differences could be attributed to a lack of power and the size of the sample. In the Dutch case both the number of dissolutions as well as nonstandard schedule workers is considerably smaller than in the U.S.

When we also look at the size of the coefficients, however, this suggests once more that there is a lack of dramatic differences between the two countries in the impact of nonstandard schedule work on partnership stability. Whilst in the analysis of the general impact of nonstandard schedule work (Models 2 and 3 in Table 5.1) country coefficients for nonstandard shift work show considerable differences, the majority of schedule combinations in Table 5.2 (Models 2 and 3) show striking similarities between the two countries.

5.5 Discussion

The aim of this chapter was to study the impact of nonstandard schedules on partnership dissolution risk and to examine to what extent this effect is shaped by country context such as divorce culture/rate and working time regulation. In line with previous research (Presser 2000; White and Keith 1990), the central findings showed that work in nonstandard schedules tends to increase partnership dissolution risk. The latter is true both when looking only at the 'individually' worked nonstandard schedules, as well as when we examine the combination of partner's schedules. Both the theoretical arguments and our findings suggest that there are

key factors that shape the impact of nonstandard schedules on partnership dissolution risk, such as the combination of schedules that couples work, the gender of the nonstandard schedule worker, the working time arrangements, and presence of (young) children in the household. Contrary to our expectations, the impact seems only very modestly shaped by the divorce, labor market and welfare regime context of the country where these scheduled are worked. In other words, there seems to be a more universal influence of these nonstandard employment schedules that transcends national context.

Our first main conclusion is that working nonstandard schedules or having a nonstandard schedule worker in the household increases the risk of partnership dissolution. The already wide-spread and partly increasing prevalence of nonstandard schedule work can, thus, lead to an increase of partnership dissolution due to partners' working time arrangements. The risk for partnership dissolution risk is somewhat higher when nonstandard schedules are worked by women, suggesting that the predominant traditional expectation of women's position in employment and the household still lingers. The second main conclusion of this study is that the increase in partnership dissolution risk is even more strongly influenced by women's full-time engagement in labor market, regardless of whether they are employed in nonstandard or standard schedules.

Our third central conclusion is that the impact of nonstandard schedule work on partnership stability is stronger when partners work *de*synchronized schedules, such as one in standard and the other in nonstandard times. This effect becomes especially relevant in the backdrop of parents' strong tendency to consciously *de*synchronize their schedules (so-called tag-team parenting) in order to arrange child-care (Carriero et al. 2009; Mills and Täht 2010).

The fourth conclusion of this study is that contrary to our expectations, the risk of partnership dissolution is actually lower in households where parents who have young children also work in nonstandard schedules. One plausible explanation is that these nonstandard schedules serve a particular function for the household, may even be temporary during this life course phase of the family and therefore the impact on the partnership is not as destructive. The fact that the main effect of nonstandard schedule work on partnership dissolution risk remains positive, however, means that the potentially negative impact of nonstandard schedules should not be ignored here. Even when working nonstandard schedules due to child-care reasons, in the long run couples still face a higher risk for partnership dissolution. Unfortunately, the current data in this chapter does not allow us a test to measure what extent these schedules and schedule combinations were actually used to arrange childcare or fulfill other household needs.

The findings regarding differences between the U.S. and The Netherlands are partially limited to due data limitations and specifically sample size. Working time regulations can provide the households with various buffer-mechanisms and flexibility in order to cope with the potentially negative consequences of nonstandard employment schedules and reduce the strain that working these schedules puts on

families. The risk for increased partnership dissolution remains, however, even when work in these schedules is an intentional or voluntary choice. As the findings show, on the one hand, the Dutch employment context provides workers with more protection, remuneration and flexibility, which may be why workers and their partnerships suffer less from the negative consequences of nonstandard schedules. The American couples, experience the opposite and are more at the risk of partnership dissolution when engaged in nonstandard employment schedules. Moreover, due to the more disadvantaged and marginal labor market position of nonstandard employment schedules in the U.S., American households have an additional accumulation of negative consequences of nonstandard schedules which exacerbates partnership dissolution risk. On the other hand, despite the more protective and regulated working schedule environment, Dutch couples are still at significantly higher risk of experiencing partnership dissolution when having at least one nonstandard schedule worker(s) in the family. The risk is especially high when nonstandard schedules are worked in desynchronized mode.

Appendix

Table 5.3 Description of sample selection and missing data

	Netherlands (wave 1: N = 8,161)				United States (wave 1: N = 13,007)			
	Excluded[a]	Missing	Selected[b]	Panel attrition[c]	Excluded[a]	Missing	Selected[b]	Panel attrition[c]
Number of cases (%)			8,161 (100)	2,070 (25.4)			13,007	3002 (23,1)
Age group 18–64	1,213	–	6,948	1,681 (24.2)	2,024	–	10,983	2160 (19.7)
Co-residential couple (%)	2,309 (33.2)	2 (0.0)	4,637 (66.8)	960 (20.7)	4,357 (39.7)	1 (0.0)	6,625 (60.3)	1,225 (18.5)
Heterosexual couple (%)	79 (1.7)	–	4,558 (98.3)	945 (20.7)	7 (0.1)	21 (0.3)	6,597 (99.6)	1,221 (18.5)
At least one working (%)	370 (8.1)	1,206 (26.5)	**2,982** (65.4)	430 (14.4)	395 (6.0)	1,283 (19.4)	**4,919** (74.6)	771 (15.7)

Data Netherlands—NKPS, 1st wave (2002–4) and 2nd wave (2007); United States—NSFH, 1st wave (1987–88) and 2nd wave (1992); Author's calculations

[a]Excluded due to sample selection criteria

[b]Cases selected to sub-sample after applying sample selection criteria; Excluded, missing and selected cases add up to 100 %

[c]Report on data losses in respective group due to panel attrition in wave 2

Table 5.4 Description of working hours and schedules of co-residential couples in The Netherlands and in United States

	Netherlands (N = 2,982)		United States (N = 4,919)	
	Mean	N	Mean	N
Wave 1:				
Female partner				
Not employed[a]	0.31	2,982	0.33	4,919
Part-time employed[b]	0.43	2,895	0.14	4,620
Nonstandard shift[c]	0.07	2,895	0.09	4,620
Nonstandard day[d]	0.10	2,895	0.14	4,620
Male partner				
Not employed[a]	0.07	2,982	0.07	4,919
Part-time employed[b]	0.08	2,880	0.05	4,541
Nonstandard shift[c]	0.06	2,880	0.12	4,541
Nonstandard day[d]	0.19	2,880	0.28	4,541
Household socioeconomic status[a]	50.72	2,982	44.26	4,919
Partnership status: cohabitation	0.19	2,982	0.09	4,919
Partnership duration (years)[e]	16.74	2,982	11.74	4,905
Youngest child				
0–3 years old	0.19	2,982	0.26	4,919
4+ years old	0.60	2,982	0.40	4,919
Wave 2:				
Partnership dissolution[f]	0.04	2,542	0.15	4,052
Valid N (listwise)	2,390		3,520	

Data Netherlands—NKPS, 1st wave (2002/4) and 2nd wave (2007); United States—NSFH, 1st wave (1987/8) and 2nd wave (1992)

[a]0–12 h a week

[b]12–32 h a week

[c]Includes fixed evening shift, fixed night shift and hours vary shift

[d]Refers to working fixed day shift that is worked also in weekends

[e]Partners' mean ISEI

[f]Partnership status of wave 1 in wave 2; under dissolution is meant partnerships that have been divorced or separated; widows excluded from the analysis

Table 5.5 Couples' employment status and working schedules in The Netherlands and in United States, %

Partners' schedule combinations	Netherlands	United States
Combination 1: Male/Female NS shift/day PT/FT	5.3	10.5
Combination 2: Male S PT/FT; Female NS shift PT/FT	4.2	3.8
Combination 3: Male S PT/FT; Female NS day FT	2.9	4.9
Combination 4: Male S PT/FT; Female NS day PT	2.7	1.0
Combination 5: Male NS shift PT/FT; Female S PT/FT	2.6	3.9
Combination 6: Male NS day PT/FT; Female S FT	2.9	8.6
Combination 7: Male NS day PT/FT; Female S PT	5.3	2.1
Combination 8: Male NW; Female NS shift/day PT/FT	2.1	2.5
Combination 9: Male NS shift/day PT/FT; Female NW	8.2	14.7
Combination 10: Male S PT/FT: Female S FT	13.3	19.4
Combination 11: Male S PT/FT; Female S PT	22.8	4.0
Combination 12: Male NW; Female S PT/FT	4.5	4.8
Combination 13: Male S PT/FT; Female NW	23.2	19.8
Total, combinations	100.0	100.0
N	2,982	4,919

Data Netherlands: NKPS wave 1 (2002–4); United States: NSFH wave 1 (1987–88). Author's calculations

Notes Sample: 18–64 years old population, heterosexual co-residential couple where at least one of the partners works minimum 12 h a week

Abbreviations *NS* nonstandard; *S* standard; *PT* part-time (12–32 h a week); *FT* full-time (32 and more hours a week); *NW* no work (0–12 h a week)

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Chapter 6
Conclusions: The Impact of Nonstandard Employment Schedules on Family Cohesion

Abstract In this book we asked the overarching question: What is the impact of nonstandard employment schedules on family cohesion? Throughout the various chapters within this book, we then attempted to address the various aspects of both nonstandard schedules, but also different sides of family cohesion. We started by reflecting on how the various aspects of the labor market, households and national institutions might shape this process. In the subsequent chapters we shed light on the association between nonstandard employment schedules and family cohesion by analyzing where nonstandard schedules are located, who works these schedules from both the labor market and household perspective, and how it impacts family cohesion in terms of partnership quality and stability and parent-child interaction. In the current chapter, we summarize our main finding, point out some policy implications, and conclude with a reflection of some of the limitations of this study and promising directions for new research.

Keywords Impact of nonstandard employment schedules · Family cohesion · Partnership quality · Partnership stability · Parent-child interaction

6.1 Who Works in Nonstandard Employment Schedules?

Despite being called 'nonstandard', work in the evening, night and/or weekends are in fact a rather pervasive phenomenon. Depending on the definition, 26–35 % of Dutch labor market participants work regularly in nonstandard shifts or days. These numbers are somewhat lower compared to the so far most studied country on this topic, the U.S., the figures are among the highest when it comes to other European countries where in average one fifth of workers engage regularly in evening, night or weekend work (see also Presser et al. 2008). Work in nonstandard schedules has become a reality of many workers and households. Given the high prevalence on the one hand and the previous knowledge of predominantly negative consequences of nonstandard employment schedules on workers and their families on the other

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hand, it becomes increasingly important to understand where, why and how these schedules are worked.

Our analysis of the location of nonstandard schedules in the Dutch labor market revealed some 'universal' characteristics uncovered by previous U.S. research (Presser 2003; Hamermesh 1996; Kalleberg 2011). Despite the prevalent argument of an ever emerging 24-hour-economy, nonstandard schedules and the 24-hour economy seems to not have penetrated all parts of society. Rather, the prevalence and location of nonstandard schedules is very much shaped by various individual, occupational, and household characteristics. Nonstandard schedules tend to be strongly concentrated in some occupations (e.g., nurses, midwives, cashiers, restaurant workers, sales persons, plant operators, drivers, cleaners, etc.). These jobs are, in turn, more likely to have lower socio-economic status. Also, employment in nonstandard times (in the case of The Netherlands, particularly weekend work) is often associated with longer working times, or in other words that those employed in nonstandard employment schedules are simply the 'over-worked'. Together, all of these features support the generally negative connotation that is often associated with nonstandard employment schedules and family life.

On the other hand, our analysis indicated some features and trends of the less often examined neutral or event potentially positive aspects of nonstandard schedules. These cross-national findings suggest considerable importance of how the institutional context shapes the prevalence, meaning, location and impact of nonstandard schedules on families. In The Netherlands, there is a less negative connotation of nonstandard schedules, likely related to workers being more protected and nonstandard employment as less of a marginal labor market position. Next to being 'forced' to work these schedules due to job requirements, many Dutch families envision these schedules as an 'efficient' way to allocate their household time and duties. We argue that the latter is, however, possibly due to the high prevalence and accessibility of part-time work in The Netherlands on the one hand, and the strict regulation and high protection of (nonstandard) working times on the other hand. Since part-time workers receive a relatively high wage and identical labor market security, health and pension benefits as full-time workers in the Netherlands, part-time work in nonstandard schedules allows both or one member of the couple to reduce and rearrange the times of the their employment around their family.

Next to occupational characteristics, household composition also shapes employment in nonstandard schedules. A general positive association between partners' nonstandard schedule work seems to exist: one partner's work in nonstandard schedules increases their partner's probability to work in similar schedules, leading to what is often termed schedule synchronization (Lesnard 2008; Carriero et al. 2009). In other words couples try to synchronize their employment schedules and lives, in order to avoid time scarcity. Having young children in the household, however, tends to raise the propensity to work nonstandard schedules, which seems a rather universal feature. When there are children in the household, it is more likely that one or both of the partners work desynchronized schedules—while one partner is taking care of children, the other is working and the other way round. Thus, despite

knowing the main 'cause' of work in nonstandard schedules, which is certain types of occupations, it is increasingly important to keep in mind the personal/household aspect in opting for nonstandard employment schedules. In order to allow us to understand where these schedules are located and who works in them, it is essential to ask why these schedules are worked and how.

6.2 Why Do People Work in Nonstandard Employment Schedules and How is Work Within these Schedules Arranged?

Based on our data and findings we can explore possible trends and explanations to uncover why people work in these schedules and how it is arranged. As previously highlighted, nonstandard schedules are an inherent part of some jobs. An important aspect in this respect is that jobs that have nonstandard schedules tend to be concentrated within lower level occupations. This means that the working conditions of an already disadvantaged labor market segment are exacerbated by nonstandard times and days to become even more vulnerable. The prevalence of these types of jobs within particular countries is not random, but part of larger macro-processes and labor market structures of the country.

Another visible trend we observed is that people opt for these schedules for personal and/or household reasons. This fact in itself is not new—next to occupational requirements, the second biggest reason for working these schedules are household reasons. While in the American context, however, nonstandard employment tends to be more a 'forced choice', it is often perceived as a preference and useful type of labor flexibility in The Netherlands. A strong argument for choosing those schedules is that it allows employees—and specifically parents—to more efficiently combine other non-employment roles in the household.

The likelihood of working in nonstandard times increases remarkably once there are children in the household. Work in nonstandard schedules appears therefore to be a conscious choice of many families and a way to secure that one of the parents is always available for the children even when both are working. Although the current data does not allow us to explore the exact mechanism of when and how nonstandard schedules are integrated into household time management schemes, our study does suggest that nonstandard working times may have become a central means of work-family reconciliation. It also suggests that families have not only moved from the single-earner breadwinner to a 'one-and-a-half' or dual-earner model, but that these changes have been accompanied by much wider changes in family time arrangements in general. However, when digging deeper into the consequences of integrating nonstandard schedules into household time management schemes, we see that although these nonstandard schedules may operate to deal with practical work-life reconciliation, there might be potentially negative consequences for family cohesion. In other words, work time flexibility in the

format of nonstandard working time may be a temporary way to combine work and family duties, but in the long run it may not be sustainable and may even be detrimental to families. Turning now to the examination of the impact of these schedules on family cohesion, we see, however, that the national context of employment plays a pivotal role in buffering these potentially negative effects.

6.3 What is the Impact of Working Nonstandard Schedules on Family Cohesion?

The impact of nonstandard employment schedules on family cohesion was measured in three different ways, via the impact on: parent-child interaction, partnership quality, and partnership stability. While some negative associations could be found —loss in joint family time, modestly increased conflict or dissatisfaction in the partnership—in general, the impact of working in nonstandard schedules in The Netherlands remains modest. Moreover, sometimes even positive associations could be found such as increased time spent with children for fathers. Overall, however, the clearest negative association appeared in the case of the long-term effect of these schedules. Having anyone who works nonstandard employment schedules in the household, especially in a desynchronized schedule, markedly increased the probability of partnership dissolution.

Throughout the three family cohesion studies in this book, there appeared to be a clear *gender effect* of the nonstandard employment schedules. It is more likely that women work nonstandard schedules, suggesting that they are more likely to 'adapt' their working time according to family needs. The general expectation throughout the studies was that women's nonstandard employment schedules have a clearer negative impact since they deviate from the 'traditional gender norm' in a double way: Not only do women leave the household to engage in paid labor, but—more importantly—they are absent during the hours when the rest of the family is home such as key dinner and bedtimes of children. As the research in this book demonstrated, nonstandard employment schedules and more precisely, work in the evenings and in varying hours, increased levels partnership conflict and relationship dissatisfaction more for women. In the case of men, an important aspect seemed to be non-work—when the male partner was not working, more conflict and dissatisfaction could be predicted in the relationship. Again, this is line with deviation from the traditional gender norm of many societies that males are the primary breadwinners.

The risk for partnership dissolution was likewise somewhat higher when women worked within nonstandard schedules. The gender effect is even more evident when we took into account the actual number of hours that women worked, which was central. An increase in the partnership dissolution risk was stronger in the case of women's full-time engagement in the labor market, no matter whether it is worked

in standard or nonstandard schedules. Thus, the (negative) gendered impact of nonstandard employment schedules on family cohesion is driven by two mixed mechanisms. First, it is driven by the fact that woman are engaged in the labor market and this way deviating from a traditional role (particularly when they are working more hours). Second, by virtue of being employed in nonstandard times and days, they are not present during the traditional 'family' time.

A striking finding was that when both women and men tend to modify their work schedules according to family needs such as child care tasks, it is in fact the men who increase the time they spend with children. For women we see no evident change in their parent-child time according to their schedule. Thus, while women often work nonstandard shifts and days in order to be perceived 'full-time mothers' while working, for fathers it is a way to increase their otherwise lower participation rate in child-care tasks and activities.

The second main important effect that appeared throughout the studies was the importance of *children* in relation to our study outcomes. Having young children in the household is a clear motive for parents to engage in nonstandard employment schedules. Having young children also tends to moderate the negative impact of nonstandard employment schedules on family cohesion. For example, having young children somewhat reduces the disruptive effect of work in these schedules on partnership stability. In other words, when schedules seem to have a certain function for the household such as arranging child care or 'tag-team parenting', the impact on the partnership is not experienced as disruptive. On the other hand, even when working nonstandard schedules increases father's time with children, it also reduced the overall family time together and in the long run it increased the partnership dissolution risk despite the presence of children in the household.

The third crucial factor related to the issue of the impact of nonstandard employment schedules on family cohesion is the *household composition*, more precisely the couples' schedule combination. Our findings in this book show that employment in nonstandard schedules has to be studied and understood in the household context even when worked individually. It is not only that the impact of work in these schedules appears at the household level (it often affects the entire household), but also that the decision to engage in these schedules is often taken at the household level in relation to household situation and demands. The main effect of employment in nonstandard schedules may increase conflict and dissatisfaction in the partnership or increase the partnership dissolution risk, but when considered in a combination with the partner's schedule, the negative effect generally becomes milder or sometimes even disappears. The most detrimental schedule combinations for partners tend to be desynchronized schedules, which must reduce remarkably the couples' quality time with one another.

6.4 The Role of National-Level Country Context: How Does it Shape the Impact of Nonstandard Employment Schedules on Family Cohesion?

The role of culture, industrial relations and economic context is often underestimated or even ignored in previous research on the examination of nonstandard schedules and its impact on family cohesion. This is largely due to the fact that most countries are single-national studies and that the majority of research has been conducted almost exclusively in the U.S. The findings of this book show that institutional context does play an important role in shaping the meaning, prevalence, location and the consequences of nonstandard employment schedules on workers and families. The manner in which nonstandard employment schedules are regulated and organized politically, occupationally and individually can soften the disruptive impact of work in these unhealthy days and hours by neutralizing the negative consequences. Various universal trends regarding nonstandard employment schedules—such as reasons why they are worked; location of these schedules in labor market and households—tend to be context-specific associations and could be explained by the country context.

For example, it would be plausible to expect that in The Netherlands where childcare facilities have become increasingly more accessible and part-time employment is very widespread, families would actually not need to engage in nonstandard employment schedules due to family reasons. The strongly regulated and protected part-time sector consists of jobs that generally mothers are employed in around the school-times of their children. Still, the cultural norms in The Netherlands hold a less positive view of institutional childcare and working mothers. Relatively expensive and limited child-care and the school hours of younger children also implicitly assume that one parent needs to be home or work reduced hours in The Netherlands. At the same time, due to high employment protection and working-time regulations, part-time employees receive comparable benefits and wages to those working full-time and reduced working hours does not undermine their labor market position. This makes it easy to combine part-time work and nonstandard schedules. Due to the often voluntary nature and supportive institutional context, working nonstandard schedules in order to arrange child-care and family life appears to have less negative consequences for families in The Netherlands.

What this book demonstrates is that it may in fact be culture, poor working conditions, unequal opportunities, and a lack of employment protection and not nonstandard schedules per se that may hurt couples' relationships and families. As discussed previously, similar mechanisms (such as working nonstandard schedules for childcare reasons) can have a different meaning and outcomes in different national contexts. The Dutch case provides an interesting case study in the face of largely negative results that have been reported until now by showing that when these schedules are relatively 'good jobs', there need not be a negative impact on children and couple cohesion. Nonstandard employment schedules in The

Netherlands have no overwhelmingly negative connotations, nor a clear tendency to accumulate in already disadvantaged households.

The key factor here is that being 'out of sync' with standard individual and social rhythms creates in itself strong physical and social strains on workers and families in nonstandard employment schedules. A compensation and 'buffer' mechanism helps to control or reduce the negative impact of nonstandard employment schedules. The 'buffer' mechanisms that exist in The Netherlands are for example the prevalent and efficient combining of nonstandard schedules and part-time work. In the U.S., in turn, nonstandard employment schedules are generally concentrated into lower level jobs, receive lower wages, and worked by those in an already more vulnerable labor market situation. Moreover, part-time work in the U.S. is a significantly more vulnerable labor market position than full-time work, which means that the combination of nonstandard schedule and part-time work holds a radically different meaning and position in more protected labor markets such as The Netherlands. As a result, work in nonstandard schedules in The Netherlands does not hold the overall negative connotations witnessed in previous U.S. studies since working in these schedules in The Netherlands is much more likely related to preference and not a forced choice or lack of other alternatives.

6.5 Policy Implications: Is it Possible to Reduce the Negative Impact of Nonstandard Employment Schedules on Workers and their Families?

Only a limited number of studies (for example see Han 2007; Gornick and Meyers 2003; Presser 2003) have suggested policy implications for reducing or avoiding the accumulation of negative consequences of nonstandard employment schedules. Concrete strategies and mechanisms about how to deal with the (often disruptive) impact of nonstandard schedules on workers and families, or more precisely how to buffer or weaken this impact, are out of the scope also in current research. However, due to the intertwined nature of contextual factors with the actual impact of nonstandard employment schedules on workers and families, the presence and practice of various strategies and mechanisms for dealing with the impact of nonstandard schedules has appeared in all our studies throughout this book.

As we previously and repeatedly pointed out, the central mechanism shaping the presence and impact of nonstandard schedule in households is the *country-specific institutional context*. More precisely, working time regulations and work-family policies are pivotal. It is often rather the culture, poor working conditions, unequal opportunities, and a lack of employment protection and not nonstandard schedules per se that may hurt couples' relationships and families. We demonstrated that although couples in the U.S. and The Netherlands may opt to work in nonstandard for the same reasons, such as desynchronizing schedules to manage childcare, the

meaning and strength of the either positive or detrimental outcomes of these employment schedules differed per country.

Working time regulation includes how many hours workers are allowed to work, how many hours can be worked in nonstandard times, what hours/days are nonstandard, whether and how work in the 'unhealthy' days and hours is compensated or rewarded. This is usually regulated at a higher level by national or in the case of Europe Supranational (European) laws and/or collective agreements. In the Dutch case, rather strict regulations do not necessarily result in the low prevalence of these schedules. However, nonstandard employment schedules is more limited and concentrated into occupations where these schedules are unavoidable and form integral part of these occupations (for example, nurses, midwives, policemen, factory workers, workers in agriculture). This, in turn, allows workers to perceive nonstandard employment schedules to a great extent as 'part of the deal' when opting for some of these occupations and entering educational fields that lead to these occupations in the first place.

Even when nonstandard schedules are an integral part of many occupations, workers in these schedules are still exposed to the risk of negative consequences of working in 'off times'. One of the most standard compensation mechanisms for being engaged in these schedules is *increased pay* for days and hours worked outside of 'standard' working times. This type of compensation mechanism, however, seems efficient only in the case when it protects workers in some way such as allowing them to 'buy themselves out' of these hours, and does not attract them to get engaged in them even more intensively. In the first case, higher pay for working in nonstandard times such as night shifts is reflected in the reduced number of weekly working hours. The remuneration for work in nonstandard times allows the worker to be employed in fewer hours for the same income. In the second case, extra pay attracts lower income workers to engage in even a higher number of nonstandard schedules in order to earn a decent income.

An important regulatory mechanism is also *working time restrictions*. To protect workers against the unhealthy consequences, in The Netherlands for instance, they are forced to work less hours once engaged in nonstandard times. Once work in nonstandard times becomes a way to earn decent income, there is a high risk for the marginalization of nonstandard employment schedules and respectively for another disadvantage to accumulate in households which are already in a more vulnerable position.

In addition to extra pay, various *other compensation mechanisms* can be put in place such as additional recreational time or free days, which allows the workers to recover from the physical strain of working in the times. Also, in order to prevent negative consequences, workers in nonstandard schedules need respective health check-ups and assistance. Counseling and advice on how to avoid the accumulation of negative (physical) consequences of nonstandard employment schedules are also recommendable and useful, which already takes place in many occupations during training such as by the police force or health professionals.

Another important factor that can operate to reduce the negative impact of nonstandard employment schedules on workers lives is the *autonomy and flexibility*

of working time. This is the ability to choose the starting and ending times of employment or one's overall working times and days. Control over the timing of nonstandard employment schedules significantly reduces the negative impact of these schedules on the workers. The opportunity and degree of flexibility depends, of course, on the nature of the occupation. In some jobs, working time and day flexibility remains a real option, whereas in others it is not. Another important aspect is the *predictability of working times.* Knowing the working schedule a longer time in advance helps workers to plan the rest of their activities and again reduce the strain of nonstandard employment schedules on their lives. Unpredictability has negative consequences for childcare planning, but also creates uncertainty.

The negative consequences of nonstandard employment schedules are also reduced when these schedules are worked *intentionally* or *voluntarily*. Here an important factor is the individual or household need for working these schedules. As discussed throughout each chapter in this book, nonstandard schedules are often worked due to household reasons such as arranging childcare and in these cases there can be observed little or almost no negative impact of nonstandard employment schedules on household relations. The latter is, however, again true only in a context where there are sufficient compensation and buffer-mechanisms available against the negative consequences of work in nonstandard times. In other words, engaging in nonstandard schedules may be an efficient way to solve household needs.

In order to avoid a negative impact of nonstandard schedules on family life, employers could play an important role by informing and educating their workers about the consequences and challenges related to nonstandard schedules, even when done so voluntarily. Next to that, it is important to recognize why nonstandard employment schedules are intentionally integrated into the lives of workers and families. For example, when households turn to nonstandard employment schedules because this is a way to arrange childcare, it may be an indication of poor accessibility, availability or quality of childcare. Thus, there is also a high risk that these schedules are worked due to forced need and not due to household preference, which may increase strain and negative consequences for the household. A rarely discussed issue is the reverse problem: many nonstandard employment workers have children and they often need 'nonstandard schedule' child-care facilities. Lack of sufficient child-care facilities can here, in turn, create stress and challenges for households.

At both the individual and household level various strategies exist that allow employees to control or reduce the negative impact of working in these schedules. The latter is especially important in national contexts where institutional support for those workers in nonstandard schedules is weak or absent. A key factor is the *awareness of the potential negative impact* by individuals and couples. This would permit workers and families to prevent or react on time to the challenges created by nonstandard employment schedules. For raising awareness, again employers or unions, but also employees themselves can contribute. It is also important to realize that nonstandard employment schedules do not only impact the individual that works these irregular times, but also the entire household and their shared free time.

What is very important is *communication* between the family members, planning of activities, and creating joint routines and activities. Largely via the qualitative interviews, this book showed that conscience strategies that families are able to create and apply often depend on the general institutional frame, which shapes among other things also the meaning of nonstandard employment schedules. Families where one individual is employed in these types of schedules seem highly cognizant of the need to coordinate and plan, which may in turn reduce the potentially negative impact of these schedules.

To summarize, various 'buffer' mechanisms can be imposed or introduced on the institutional, employer-worker or household level to reduce the negative impact of these schedules on workers. However, for strategies to be more efficient, higher (employer, state) level regulation mechanisms become crucial. Here the Dutch case represents a positive example. At the same time, it is also clear that the two country cases under examination—The Netherlands and the United States—represent historically different types of welfare regimes and it is unlikely that the overall employment and working time regulations in both countries will resemble one another very soon. Even the rather successful Dutch case shows that workers and families of nonstandard employment schedules suffer negative consequences of this type of work. Therefore, it is not only the Americans who can or should learn from Dutch case, but also the other way round. Against the backdrop of a general shift towards higher deregulation in The Netherlands and elsewhere, including working time regulations, one should be aware of the American experience where work in nonstandard schedules has become often a marginal employment practice, a characteristic of so-called 'bad jobs'. It is favorable if workers and households can choose to work in nonstandard schedules according to their needs and preferences. Once it becomes a forced choice, however, there is a higher risk for increasing inequality between standard and nonstandard employment workers. In the latter case, there is a high risk that work in nonstandard times accumulates among the already disadvantaged societal groups who become heavily exposed to the negative consequences of nonstandard employment schedules on family cohesion.

6.6 Some Limitations and Future Research

Although this study extended our knowledge beyond previous studies in many ways, there remain some limitations which could be rectified in future research. The data available to study nonstandard employment schedules remains limited. As could be seen throughout all the chapters, work in nonstandard schedules has on the one hand a rather stable component, which is the specific occupation. On the other hand, work in these schedules can often be time and (household) context varying and worked only during some specific life period, such as studies, early career, or first years of parenthood. Therefore, even when the general impact of nonstandard employment schedules tends to be negative, the effect may vary over time such as when the children are still young. It may facilitate parents combining work and

family duties, while some years later it can become a very destructive mechanism for the family cohesion. Most of the data used so far remain relatively static, meaning usually little can be told about when workers engage into these schedules, how long of a period they are worked, when work in these schedules is left, and the association between this process and other personal/household events. It would therefore be very fruitful if future research could employ longitudinal data to examine the dynamic or life course nature of entering and leaving nonstandard employment schedules.

The current book attempted to fill gaps in our knowledge also by integrating qualitative with quantitative data. This mixed-method approach has been relatively rare in family research in sociology and demography in general, but we hope to have demonstrated that it can be useful to answer different sides of the research question. Our methodological approach permitted us to dig deeper beyond rich description of theoretical mechanisms of what we 'think' might be going to on to delve in empirical narrative data of how people describe their lives when working nonstandard employment schedules. This brings us to an overall better understanding behind the reasons as to why families engage in evening, night or weekend work. It also gave us insights into the way they integrate these types of schedules into their household time management scheme and the strategies they use to cope with the potential (negative) consequences of work in these unhealthy schedules. Even our approach, however, has remained limited and much of the process remains still a speculation. Thus, future research would benefit from collecting better data that allows studying not only how these schedules are worked and what is the impact on individuals and households, but also the mechanism through which individuals and households get engaged into nonstandard employment schedules.

Another potential limitation of the data used is that the two main datasets—NKPS and NSFH—are collected around 15 years apart from one another. However, since the United States is introduced to the study in order to explore the underlying mechanisms behind individuals' and households' choices for nonstandard work schedules in both countries, we believe this time gap is not crucial. As shown already in previous studies (Breedveld 1998; Presser 2003), even at the end of 1980s, the prevalence of nonstandard schedules in the United States was higher than in The Netherlands in 2004. Thus, The Netherlands and the U.S. were even then and still remain as two rather different cases regarding the prevalence of nonstandard schedule employment.

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