**United Nations Economic Commission for Europe** 

United Nations International Research and Training Institute for the Advancement of Women

# TIME USE OF WOMEN IN EUROPE AND NORTH AMERICA



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United Nations International Research and Training Institute for the Advancement of Women

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**Edited by Iiris Niemi** 



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The following symbols have been used throughout this publication:

A dash (-) indicates nil or negligible; Three dots (...) indicate not available or not pertinent, An asterisk (\*) indicates an estimate by the secretariat of the Economic Commission for Europe; Use of a hyphen (-) between dates representing years, for example, 1989-1991, signifies the full period involved, including the beginning and end years. References to dollars (\$) are to United States dollars unless otherwise stated.

The following abbreviations have been used:

ECEEconomic Commission for EuropeINSTRAWInternational Research and Training Institute for the Advancement of WomenILOInternational Labour Office

## **PREFACE**

This publication was edited by Senior Researcher Iiris Niemi of Statistics Finland, Helsinki, and brings together studies on the time use of women conducted in various countries in Europe and North America by several well-known researchers in this field. In addition to the study by Ms. Niemi and her chapter containing the summary and conclusions, the three other contributions to this publication are by Professor Jonathan Gershuny of Nuffield College, Oxford, Researcher Susan Lingsom from the Institute for Applied Social Research in Oslo and Dr. Jana Viteckova of the Czechoslovak Academy of Sciences. The publication was made possible by a financial grant by the United Nations International Research and Training Institute for the Advancement of Women to the United Nations Economic Commission for Europe, and this is gratefully acknowledged.

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## A GENERAL VIEW OF TIME USE BY GENDER

by Iiris Niemi

#### 1. Introduction

#### (i) History of time-budget surveys

The time-budget method had its origins in the study of family budgets, the accounting method which was used for studying the living conditions of English and French factory workers at the end of the 19th century. The need for more comprehensive information on the lifestyles of families led to the study of the use of time, in addition to the study of the use of money. This gave rise to timebudget research as the research tradition where the behaviour of people is measured in terms of their use of time, in hours and minutes (Szalai (1966)). Since the 1920s time-budget surveys have been carried out using methods that allow comparisons between older and more recent surveys. Time-budget surveys are the most longstanding in the former Soviet Union, the United States and the United Kingdom.

Time-use studies were carried out only sporadically until the late 1960s, when a comparative time-budget study of 12 countries. the Multinational Comparative Time-Budget Research Project, was carried out under the direction of Alexander Szalai (Szalai (1972)). The project was supported by the European Centre for Coordination of Research and Documentation in the Social Sciences, in Vienna, and included both market economies and centrally planned economies. This research project has had a significant impact on time-use research. The researchers continued to cooperate even after the project had finished and founded the time-use researcher's group, which acquired the status of an "ad hoc group" in the International Sociological Association in 1970 (Ås (1986)). The name of the group is presently "The International Association for Time Use Research" and it includes researchers from nearly every part of the world in its membership.

#### (ii) Time-use studies in ECE countries

Time-use studies are now carried out in most ECE countries. The pioneers in this field of research were academic researchers, and the materials they used were usually of small size, consisting of data from a single

location and population group. In studies carried out in the 1980s, information gathering has mainly been handled by national statistics authorities. Research materials have grown from samples of a few hundred to samples of thousands, which are designed to be representative of the major parts of the population. The role of academic researchers has changed from producers to users of the material. Table 1.1 shows that time-use studies were carried out in the 1980s in western and eastern Europe as well as in North America. No time-use studies were carried out in the 1980s in southern Europe.

#### (iii) International projects

Some of the countries that took part in the Multinational Study replicated their studies in the 1980s; for example, the US-Soviet bilateral comparative study (Robinson, Andreyenkov and Patrushev (1988)).

The University of Bath has gathered together timeuse studies from several countries in the Multinational Longitudinal Time-budget Archive. This archive, sponsored by the European Foundation in Dublin, contains a multinational time-budget dataset covering around 20 countries, from the 1960s to the 1980s. This dataset has served as the basis for comparative research (for example, Gershuny and Jones (1986), Gershuny (1988)).

Cross-national time use study initiatives are being considered by Eurostat and UN/INSTRAW.

#### (iv) Classification of time-use

The basic classification of time-use is divided into four categories, which was developed by V.D. Patrushev and Dagfinn Ås (Ås (1978), pp.133-135). The terms used in this report for the basic classes are:

- Personal needs
- Paid work
- Household work
- Free time.

National time-use studies from 1980-1992 in the ECE countries

Region	Country	Organization	Year
Western Europe	Austria	National statistical institute	1981, 1992
	Belgium	Radio Television Luxembourg	1982
	Denmark	National Institute of Social Research	1987
	Finland	National statistical institute	1987/88
	France	National statistical institute	1985/86
	Germany Fed. Rep.	National statistical institute	1991/92
	Iceland	None	
	Ireland	None	
	Italy	National statistical institute	1988/89
	Luxembourg	None	
	Netherlands	National statistical institute	1985, 1987
	Norway	National statistical institute	1980/81, 1990/91
	Sweden	National statistical institute	1984/85 pilot, 1990/91
	Switzerland	National statistical institute	1979/80
	United Kingdom	Economic and Social Research Council	1983/84, 1987
North America	Canada	Canada Employment Commission and others	1981 pilot,
		Statistics Canada	1986,1992
	United States	University of Maryland	1985
Eastern Europe	Bulgaria	National statistical institute	1988
	Czechoslovakia	National statistical institute	1979-80
	German Dem. Rep.	National statistical institute	1985
	Hungary	National statistical institute	1986/87
	Poland	National statistical institute	1984
	Romania	None	
	USSR	National statistical institute	1980, 1985, 1990
Southern Europe	Greece	None	
	Portugal	None	
	Spain	None	
	Turkey	None	
	Yugoslavia	None since 1965	

Personal needs are such activities as sleeping, eating, washing, etc. Time used for paid work includes the total time used for gainful employment, regardless of whether the work is performed at the work place or at home, or whether it is primary employment or secondary employment. Gainful employment includes the time used for travel between job and home, and in some countries it also includes meals at work. This definition of gainful work differs from the definition used by the ILO, whose concept of gainful employment is narrower and does not include household work-related time (such as lunch break, time spent on the job waiting for actual working hours to begin, changing of clothes before or after working hours, or travel between job and home). Gainful employment includes work done both by employees and employers. According to the quadripartite division, paid work includes studies for qualification for a vocation or a profession, as well as school attendance. However, in this report education will be considered separately from gainful employment.

Household work covers housework, home repairs and maintenance, child care, assistance to other households and errands. Work on one's own farm is included in paid work, but gardening is considered as household work when it does not relate to farm work or when produce is not grown for sale.

time remaining from sleeping, eating, The employment, household work and education is classified as free time. In studies carried out in different countries, the main classes of time-use have been defined quite uniformly, though there exist definitional differences in details. One should thus not attempt to make any detailed comparisons between countries, except with respect to results from actual comparative study projects. Valid comparisons require that materials are made homogeneous with respect to the sample used, the period of time under study, and the classifications applied (see the Appendix to this chapter for a more detailed discussion of methodology). For this reason the focus of the present report is on the examination of trends of change and on interrelations rather than on the comparison between different countries.

## 2. Trends and changes in time-use from the 1920s to the 1960s

#### (i) Introduction

The first time-use studies were restricted to specific locations and to specific population groups. National-level studies have only been carried out since the 1960s. For example we are unable to find any information on how women's time use changed before the 1960s. There are indications of changes in the everyday life of employed women and men, as well as in the time-use of housewives. We cannot, however, get any information on the relationship between paid and household work at the level of the entire population. This relationship has been analysed only since the beginning of the 1960s.

#### (ii) Soviet Union

The longest time series describing structural changes in time-use relate to the Soviet Union, the United States and the United Kingdom. Time-budget surveys have the longest tradition in the former Soviet Union, where Strumilin collected data on the time-use of factory workers as early as 1923/24.

Zuzanek (1980) has analysed the changes in time-use in the Soviet Union over four decades. In 1965 a comparable study was carried out showing that men's working time was down only one hour per week (from 47 hours to 46 hours) and women's two hours (from 46 hours to 44 hours per week). The reduction was thus rather modest. The survey concerned hours actually worked, which did not include lunch breaks or travel to and from work. The longest working time was recorded for the period lasting from the Second World War to 1959, when it amounted to 50 hours per week.

The mid-1960s saw a reduction in working time as the mandatory length of the working week fell to its present level of 41 hours. In 1966/67 the Soviet Union changed to a five-day working week, without reducing the weekly working time.

The time used for travelling to and from work grew very little from the 1920s to the 1960s. Whatever growth there was occurred in big cities.

The time used for sleep changed very little over the 40 years: men showed no change at all, while economically active women showed an increase of about three hours per week. The weekly pattern of sleeping however underwent changes: people slept less on weekdays and more at the weekend. Meals took less time, whereas bathing and other personal care took more time than before.

In the Soviet Union in the 1920s, male factory workers devoted 13 hours per week to household work and female factory workers 37 hours. The figures in 1965 were 15 hours for men and 35 hours for women. Thus, the total time used in domestic work remained unchanged, but men's relative input into it grew somewhat, whereas that of women declined.

The structure of household work underwent changes. Women were occupied 19 hours per week in cooking in the 1920s, but only 10 hours per week 40 years later. For men, the time given to cooking declined from 3.5 hours to 1.5 hours per week. On the other hand, the time used for cleaning doubled for women in the course of the 40 years, from three hours to six hours per week. The time used for the care of clothing grew somewhat at the beginning of the 1960s, even though the level of laundry and dry-cleaning services improved and washing machines became more common. This is probably an indication of increased hygiene requirements. The time used for shopping and errands grew for women but remained unchanged for men. For men, however, the time used for child care doubled over the 40 years. The corresponding increase for women was slight. When the decline in the number of children per family is taken into account, there has been an increase in the time used for child care per child.

The weekly amount of free time of male factory workers was 30 hours and of females 17 hours in 1920s. Over the 40 years, free time proper per week grew by one to two hours for male factory workers and by about two hours for female factory workers. There was thus no reduction in the great difference between women and men with respect to free time.

The change in the quantity of free time was thus slight, but the change in its content was considerable. Participation in community affairs declined. Studying and cinema and theatre-going increased. Reading declined among men but grew somewhat among women. On the other hand, physical exercise increased among men but remained at a low level among women. Social activities declined somewhat for both sexes. The greatest change in the content of free time was due to the spread of television, which absorbed time from other free time activities and also resulted in a reduction in the amount of sleep on weekdays. In the mid-1960s, men watched television for an average of nine hours per week and women four hours.

Soviet researchers noted that the fall in hours actually worked from the 1920s to the 1960s was less than had been thought. Nearly the same amount of time was taken up by domestic work in the 1960s as 40 years earlier, although the level of child care, food and other similar services had improved. The amount of free time grew somewhat, but its use was characterized by a steady increase in media consumption.

#### (iii) United States

Compared with the Soviet Union, the structural changes in time-use in the United States show some similar and some contrasting features (Robinson and Converse (1972)). The changes can be discussed only in broad terms because of the great methodological differences between the surveys carried out in different decades.

From the 1930s to the 1960s, only slight changes occurred in the amount of time used for paid work in the United States. As in the Soviet Union, working time grew during the Second World War. In the 1960s, an economically active man worked nearly the same number of hours per week as in the 1930s. However, the structure of the labour force underwent some changes: the relative contribution of women to the labour force increased. Unlike the Soviet Union, the United States showed an increase in the amount of time used for travelling. From the 1930s to the 1960s, women's input in household work grew in spite of advances in technology. The structure of domestic work showed changes similar to those in the Soviet Union: time used for cooking was down, while the time used for cleaning, errands and child care was up. The time used for the care of clothing remained largely unchanged (Robinson and Converse (1972)).

Joann Vanek (1974) obtained results pointing in the same direction when she analysed the changes in household work from the 1920s to the 1960s in studies financed by the federal government and conducted according to guidelines developed by the United States Bureau of Home Economics. Non-employed women spent about 52 hours per week in household work in 1924 and 55 hours per week in the 1960s. The nature of household work changed considerably over this period. The time spent in the tasks classified as shopping and managerial had increased, as well as the time devoted to family care. Less time was spent preparing food. No changes could be found in home care such as cleaning. According to Vanek it was astonishing to discover that the amount of time spent on laundry had increased, although probably no aspect of housework had been lightened as much by technological change as laundry.

The time used for child care had increased which, according to Vanek (1974), reflected post-war modification of standards of child care. It is advocated that mothers care for the child's social and mental development in addition to the traditional concerns of health, discipline and cleanliness.

Employed women devoted about half as much time to household work as the non-employed did in 1968. Vanek notes that in the 1920s it was rare in the United States to find married women working outside the home; 50 years later almost 40 per cent of married women were part of the labour force.

The changes in men's use of time for domestic work have been studied less than that of women. The article by Robinson and Converse (1972) contains some indications. The total time used by men for household work changed very little from the 1930s to the 1960s. It decreased a little from the mid-1950s to the mid-1960s, even though the time used for shopping increased.

According to Robinson and Converse (1972), Americans used the same amount of time for sleep in the 1960s as in the 1930s. The weekly pattern, however, showed a similar emphasis on the weekend as that in the Soviet Union. In the United States, too, less time was used for meals than previously and more time for personal hygiene.

The impact of television on the structure of free time was even greater in the United States than in the Soviet Union. Robinson and Converse (1972) have noted that the automobile revolutionized man's dimension of space and television his dimension of time. The impact of television on time-use was the subject of several surveys in the United States at the end of the 1950s. The findings of these surveys were consistent: the greatest reductions occurred in listening to the radio, reading the weeklies, and in going to the cinema, sports events and the theatre. These activities are functionally similar to watching television. For social activities, a decrease was noted in visiting friends and relatives, in going to dance halls, and in card playing. However, television viewing did not influence newspaper reading. In point of fact, this increased rather than decreased at the advent of television.

It is likely that the time for television did not only come from the time used for other free time activities, for television viewers had more free time than other persons. It may have been due to the fact that the amount of free time was a factor in the decision to purchase a television set or that the amount of household work was reduced after the purchase of a television set (Robinson and Converse (1972), p.44).

#### (iv) United Kingdom

In Britain, a time-use survey was carried out in 1937 from which 600 diaries were recorded for the purposes of a comparative survey later on (Gershuny (1983)). Economically active men used more time for gainful employment in 1961 than they had done in the 1930s. Both the middle class and the working class worked longer hours. A similar increase in working time was shown by economically active women without children. On the other hand, economically active mothers showed a reduction in working time, which was perhaps due to an increase in part-time employment.

Women's input in household work increased considerably from the 1930s to the 1960s. A more detailed analysis revealed, however, that this was true only of middle-class women: in middle-class families, the responsibility for household work had shifted from domestic servants to housewives. In working-class families, the time used for household work remained largely unchanged from the 1930s to the 1950s, when it started decreasing. Men's domestic work diminished from the 1930s to the 1960s (Gershuny (1983), p.86). The amount of free time decreased in Britain from the 1930s to the 1960s, television viewing taking up an increasing proportion of it, as in the other countries under discussion.

#### (v) Main trends in changes up to the 1960s

The division of labour between the men and women was well established in the first half of the century: as a general rule, men did the paid work and women did the household work. The working week for paid work was of approximately the same length as that in the 1920-1930s. The time used for domestic work remained almost unchanged for a long time but then decreased in the 1950s and 1960s among women. Less time was used for cooking, whereas time spent on cleaning, errands and child care increased. Time spent on laundry did not decrease, despite technological developments. Even into the 1960s and 1970s, household work was assumed to be part of woman's role. Although there had been a number of studies in various countries of women's domestic work input, men's domestic work input did not attract the interest of researchers until the 1960s debate on the division of household duties.

The amount of free time remained almost unchanged over the whole period under study; but the use of free time was revolutionized by the arrival of television in the family home.

#### 3. Recent trends and changes in paid work

#### (i) Developments in the employment of women

Women's share of the labour force has grown markedly in the ECE countries since the 1960s. The highest percentages of women in the labour force are seen in the east European countries and in the Nordic countries. The lowest percentages noted are for Spain, Greece, Ireland, the Netherlands and Italy, where women comprised less than one third of the work force in 1990.

Women have increased their share of the labour force most extensively in Portugal, Norway, Sweden, Denmark and Canada. One of the most significant aspects of the increased employment of women has been the rise in part-time work (*The Economic Role of Women*, 1975/85, p.33). Denmark, the Netherlands, Norway and Sweden had the highest proportions of women employed in part-time jobs, with about half of all employed women working part-time at the beginning of the 1980s. In Canada and in the United Kingdom about one third of all employed women worked part-time. The corresponding share in both the Federal Republic of Germany and in the United States was one fourth. Part-time work was least frequent in east Europe, and in Italy, Ireland and Finland.

There were also differences between the countries as to how the increase in employment was distributed between full-time and part-time occupations. In North America the great majority (80 per cent) of all new women recruited to the labour force in 1973-1981 worked full time, but in Norway and Sweden 80 per cent of the increase was accounted for by part-time jobs. In Ireland, Italy and the United Kingdom, part-time employment of women actually declined (*The Economic Role of Women*, 1975/85, pp.34-35).

#### (ii) Changes in the time used for paid work

Working time decreased in the late 1960s with the introduction of the five-day working week in a number of ECE countries. According to the Time-budget Archive studies, the change in working time was more straightforward for men than for women (Gershuny and Jones (1986), pp.31-35). Full-time employed men in each of the countries studied showed a decline in paid work from the latter part of the 1960s to the early 1980s.

Estimates drawn from time-budget data on the time used by women for paid work showed a small average increase. However women's working time developments are complex. The great changes in the structure of working time (changes in the emphasis on full-time or part-time work) make it difficult to determine the direction of the underlying change. For full-time employed women, the time spent in paid work decreased from the 1960s to the mid-1970s; after that it started to increase in some countries (Canada and the Netherlands).

Some of the studies carried out in the 1980s indicate an increase in the time used for paid work. The trend in working time in Hungary changed in the 1980s: at the same time as people were reducing the time spent at primary occupation, they were spending more and more time in a secondary job or in cultivating their garden plots. As a result, the total time used for paid work grew for men but diminished slightly for women (Idömerleg (1987)). The time used for paid work also increased in the 1980s in Canada (Harvey, 1989b).

Time-use studies were carried out in Denmark in 1964, 1975, and 1987. Men's working time decreased on average during both intervening periods, but after 1975 working time in reality shortened only for lower-level white-collar and for blue-collar workers, whereas it increased for upper-level white-collar workers and for entrepreneurs (Körmendi (1989), p.75). Working time has also increased for women in leading positions, while falling for other women.

In Finland time-use studies were carried out in 1979 and 1987 (Niemi and Pääkkönen (1990)). The working week increased by 1.3 hours in the 1980s. The working week for men increased slightly more than that for women. Working time increased for blue-collar workers and entrepreneurs but decreased for lower-level white-collar workers. These longer working times were due to an increase both in overtime and in time spent in secondary jobs.

Thus recent developments indicate that the trend towards diminishing differences between women's and men's working hours has been reversed in some countries: men's working hours are increasing more than women's. The growing demand for labour in the 1970s was met by women; but in the 1980s when demands for overtime were voiced, either by the family or by society, the traditional role of men as family providers was reflected in the fact that it is men who have increased the time they spend on paid work.

#### (iii) The family cycle and time used for paid work

Men have traditionally been the family provider, whereas women's duty has been to take care of the family. This division of labour has undergone great changes. Eszter Körmendi ((1989), pp.66-68) made an interesting analysis of the Danish time-use study material. She studied the ways in which the family cycle influences paid work for both men and women, and discovered how the social norms

Region	Country	1960	1975	1990
Western Europe	Austria	40	40	40
	Belgium	27	34	34
	Denmark	31	41	45
	Finland	39	46	47
	France		37	40
	Germany, Federal Republic	37	37	37
	Ireland	26	27	29
	Italy	25	30	32
	Netherlands	22	28	31
	Norway	23	38	41
	Sweden	30	43	47
	Switzerland	34	34	37
	United Kingdom	32	37	39
North America	Canada	27	37	40
	United States	32	39	41
Eastern Europe and USSR	Bulgaria		47	46
	Czechoslovakia	41	45	47
	German Democratic Republic		50	45
	Hungary	36	44	45
	Poland	43	42	46
	Romania		36	46
	USSR	52	51	48
Southern Europe	Greece	33	30	27
	Portugal	18	38	37
	Spain	20	21	24
	Turkey		36	34
	Yugoslavia	36	38	39

#### Female labour force as a percentage of total labour force, 1960, 1975 and 1990 (Women in the total labour force, per cent)

Sources: United Nations (1980), The Economic Role of Women in the ECE Region, New York, pp.20-21; United Nations (1991), The World's Women 1970-1990, Trends and Statistics, New York, pp.104-107.

and expectations related to social roles are reflected in the women's time use. In the 1960s, unmarried men in the 27-62 years age group used on average 2.5 hours more per day on paid work than did unmarried women. This difference diminished to 30 minutes in 1987. This means a reduction in the influence of gender on the amount of paid work done.

Körmendi noted the same trend for Danish couples, whether they were married or cohabiting. Husbands use less time for paid work than before, whereas wives use more time. Although the time used for paid work converged somewhat, husbands still use more time for paid work than do their wives. These differences can be also seen in Hungary and Finland (Harcsa and others (1988), pp.39 and 45).

We can study the effect of marriage on women's paid work by comparing childless women living alone with childless women of the same age who are either married or cohabiting. We note that, both in Denmark and in Hungary, single women used more time for paid work than did married women. In Finland, on the other hand, married women aged between 30 and 49 used the same amount of time for paid work as did single women in the same age range (Babarczy (1991), pp.56,60). Marriage thus does not reduce women's input into the labour market to the same extent as before.

Children lead to a reduction in their mother's input of paid work. This effect can be seen in all countries but the tendency has been less marked over the last decades. Married mothers with small children have gone to work. Körmendi (1989), p.71) notes that nowadays motherhood restricts women's paid work significantly less than it did 25 years ago. In Denmark mothers in families now use almost the same time for paid work as do single women, and a little more than childless women aged between 27 and 62 married or living together. The fact that younger women's share of the labour force is greater in Denmark than older women's share makes a comparison difficult. In Hungary and Finland we find that married women spent on average the same length of time in paid work regardless of whether they have children or not (Harcsa and others (1988), p.12); but mothers with small children clearly use less time for paid work than do women with no children or mothers with school-age children.

In Denmark, fathers in families with children clearly reduced the time they used for paid work during the period 1964 to 1987, whereas the mothers' input of paid work showed a clear increase. Although the difference in time used for paid work has diminished, fathers still use almost twice as much time as mothers for paid work in Denmark (Körmendi (1989), p.72). In Finland, the time used by mothers for paid work is two thirds of that of fathers (Niemi and Pääkkönen (1990), pp.88-91). The role of wife has undergone greater changes than the role of mother. The wife is becoming the family provider on equal terms with her husband, but motherhood still involves an increase in the husband's role as principal provider for the family.

#### 4. Trends and changes in household work

#### (i) Introduction

The term "household work" includes housework, child care, errands, home maintenance and related travel. These activities will also be referred to here as "domestic work". In section 2 we examined the changes in household work from the 1920s to the 1960s and found that women did the greater part of all domestic work, and that the division of labour between men and women had remained almost unchanged.

In this section we examine whether the great changes that have taken place in the labour market during the past two decades have been reflected in domestic workloads. Is the same amount of time being used for household work as before? Which types of work have diminished in recent times, and which types have possibly increased? Is household work being shared more equally than before, now that women have established their role as providers for the family? Do different types of domestic work still fall into clear-cut categories of woman's work and man's work as before, or have the borders been obscured?

#### (ii) Time used for household work

We first examine the changes in total time used in Denmark, where time use studies of the 16-74 year old population were carried out in 1964, 1975 and 1987. Time used for domestic work totalled an average of 2 hours 22 minutes daily per person in 1964, and it has remained the same over the whole period under observation: 2 hours 24 minutes in 1975 and 2 hours 22 minutes in 1987 (Körmendi (1990), p.55).

These figures are comparable to those of the United Kingdom, where the daily time used for household work totalled an average of 3 hours 45 minutes per person in 1961. Thirteen years later, the time spent on domestic work had diminished by 25 minutes, but in 1983/84 the same time was spent on domestic work as at the beginning of the 1960s (Gershuny (1988), p.96). In Norway the total time used for household work diminished during the 1970s from 4.1 hours in 1971-72 to 3.7 hours in 1980/81 and to 3.5 hours in 1990/91 (Haraldsen and Kitterod (1992), p.45). In Finland the average time used for domestic work, 2 hours 47 minutes, remained the same from 1979 to 1987 (Niemi and Pääkkönen (1990), p.29).

The total amount of household work does not seem to have undergone any great changes since the 1960s. The division of domestic work between men and women on the other hand does seem to have changed. In the words of researchers of time use structure in the Soviet Union and the United States, "the largest, and probably the most significant historical shift, concerns the sexual distribution of household labour" (Robinson and others (1988), p.136).

	(Hours a	nd minutes per day)		
\$1  5		Women	Men	Women's share <sup>a</sup>
Canada (15+ years, urban)	1981	4.04	2.13	65
	1986	3.53	1.52	. 68
Denmark (16-74 years)	1964	4.14	0.28	90
	1975	3.38	1.11	75
	1987	3.06	1.37	65
Finland (15-64 years)	1979	3.56	1.58	67
	1987	3.49	2.07	64
Hungary (15-69 years)	1977	4.40	1.43	73
	1986	4.31	1.37	74
Norway (16-74 years)	1971/72	5.55	2.13	73
	1980/81	4.46	2.26	67
	1990/91	4.22	2.36	63
United Kingdom (25-60 years)	1961	4.55	2.34	66
	1974/75	4.23	2.12	67
	1983/84	4.37	2.42	63

TABLE 1.3

Total time used for household work from the 1960s to the 1980s

Sources: Harvey (1989b), Körmendi (1989), p.44; Time Use Studies in Finland 1979 and 1987; Idömerleg (1987), pp.60-62; Haraldsen and Kitterod (1992), p.5; Gershuny (1988), p.96.

<sup>a</sup>: Time used by women expressed as a percentage of the sum of total time used by men and women.

Women have reduced the time they use for household work, whereas the opposite trend can be observed for men. The share of domestic work done by women has thus diminished. In industrialized countries women now do about two thirds of all household work. In Hungary both men and women have reduced the amount of time they spend on domestic duties, and women's share has remained high - women do three quarters of the total amount of domestic work. Household work consists of varied types of work, and the trends for these are not similar.

#### (iii) Sharing of different types of household work

The sharing of domestic work between the sexes is related to social norms that define what should be considered as women's work or men's work. The role of women in industrialized countries traditionally includes housework and child care, the role of men household repairs and garden work (Berk and Shih (1980), pp.203-205).

For example, in comparing the results of recent surveys in Finland and Hungary, it is found that domestic work is shared in a similar manner in those two countries (Babarczy, Harcsa and Pääkkönen (1991), p.28). Care of clothing is almost exclusively handled by women. Women take care of the major part of the food-related activities such as cooking, food preserving, dish-washing and cleaning.

Men take a slightly greater part in child care than in the housework activities mentioned above. Nevertheless, women's share of time used for child care is still three quarters of the total. Women use only slightly more time for shopping and errands than do men. Household activities such as home renovation and vehicle repairs and maintenance are dominated by men.

The sharing of domestic work is somewhat more traditional in Hungary than in Finland. In Hungary women do three quarters of all domestic work, compared to two thirds in Finland. Total time used for household work also varies between the countries. Hungarian women do eight hours more of domestic work (mainly cooking, cleaning and laundry work) per week than Finnish women, whereas Finnish and Hungarian men use approximately the same time for domestic work. These same differences are seen when comparing the sharing of household work in Bulgaria and Finland (Niemi and Anachkova (1992), pp.12-40).

#### (iv) Trends in the division of household work

The Multinational Time-budget Archive has been used to analyse changes in the sexual division of domestic work (Gershuny and Jones (1986), pp.51-57). As we see from figure 1.1, the time used by women on housework (cooking, washing up, indoor cleaning and laundry) decreased in the 1960s, and has continued to decrease, though at a slower pace, since the mid-1970s. The beginning of the 1970s saw a marked increase in the participation of men in housework in Canada, Norway and the United Kingdom. A slight increase could also be discerned in the Netherlands.

The time used for child care has increased among women in the United Kingdom and in the Netherlands but not in Norway or in Canada (figure 1.2). This shows a general pattern of convergence in the time used for child care in the countries under study. Men have increased the time they use for child care, but differences between countries are still significant. Norwegian men clearly used more time for child care in the beginning of the 1980s than did men in the United Kingdom, Canada or the Netherlands.

Of the countries studied, Canada and the United States show the longest times used for shopping and domestic travel. In these two countries men already used about 50 minutes daily for these in the 1960s and 1970s, when European men used only half as much time for these activities (see figure 1.3).

There is a tendency for the European levels to rise toward those of North America (Gershuny and Jones, (1986), p.51). The disappearance of local stores increases the time needed for travel, and shopping in big centres takes more time. The use of private cars for shopping travel seems to lead to increased male participation in this activity. However, women still use more time for this activity than do men in all countries in the comparison.

Gershuny and Jones ((1986), p.51) note that non-routine "odd jobs" is the only category of household work to which men devote more time than women. This includes, *inter alia*, outdoor cleaning, gardening, repairs and care to adults. They note that there appears here to be a process of convergence, both among countries and between sexes, of 30-40 minutes per average day (figure 1.4).

The changes in household work that have taken place in the United Kingdom have been analysed by Gershuny and Jones ((1987), pp.23-33). They noted that women are now very nearly as likely to engage in male-specialized tasks, such as non-routine jobs about the home. The amount of housework has decreased, especially among full-time employed women with small children. The researchers believe that this reflects the effect of the diffusion of new consumer capital equipment (automatic washing machines, food preparation and storage equipment) on the very substantial workloads in such households.

Gershuny and Jones inquired whether the growth of women's participation in paid work had led to any decline in domestic work time. They found that, for equivalent amounts of paid work, women in the mid-1970s did 50 to 100 minutes less routine housework than did women in early 1960s. The amount of housework done by groups with different working times remained unchanged in the period between the 1974/75 study and that of 1983/84. According to researchers, it seems quite reasonable to infer that there is a technological explanation for these changes.



Figure 1.1 Time spent on routine housework and cooking



Sources: Gershuny and Jones (1986) p.54.



Figure 1.2 Time spent on childcare





Figure 1.3 Time spent on shopping and domestic travel



Sources: Gershuny and Jones (1986), p.56.



Figure 1.4 Time spent on odd jobs



Sources: Gershuny and Jones (1986), p.57.

	Finland (1987)	Hungary (1986)
Laundry, care of clothing	95	98
Cooking, preserving food	78	89
Washing up	81	90
Cleaning	80	85
Child care	75	73
Shopping and errands	57	66
Heating and water supply	30	25
Home renovation	8	15
Vehicle repair and maintenance	10	× -
Household work total	66	73

Sharing of household work among 15-64-year-olds by sex in Finland and Hungary (Time used by women expressed as a percentage (Per cent) of the sum of total time used by men and women)

Source: Babarczy, Harcsa and Pääkkönen (1991), p.28.

A recent Bulgarian time-use study shows a similar result (Minkov (1989), p.5). In well equipped households, less time was used for domestic work than in less well equipped households.

Women's household work is dependent on the length of their working time. This has been observed in studies made in a number of countries (e.g. Gershuny and Jones (1986), pp.75-87, Niemi and Ekholm (1986)). Gershuny and Jones have observed that men's domestic work is less dependent on their working time than is that of women. In comparing the effect that the time used for gainful employment had on the amount of domestic work done by persons with different working hours, it was noted that, between the mid-1970s and the mid-1980s, there was a clear increase in the amount of housework done by men in each paid-work category. The researchers speculate that this shift is related to a change in the ideological basis of the domestic division of labour (Gershuny and Jones (1987), pp.31-33).

The changes in housework thus show two distinct and quite contrasting trends: women's housework decreasing during the 1960s, presumably as a result of the diffusion of domestic technology, and remaining unchanged through the later 1970s and early 1980s; men's housework staying constant through the 1960s and then increasing, perhaps as a result of ideological pressures.

Researchers have found that the time spent in child care increased between 1974/75 and 1983/84. The time used for child care increased regardless of the length of paid work time. The time used for shopping and domestic travel increased steadily throughout the three surveys for both men and women, regardless of paid-work time length. In sum, the researchers note that the irregularity in the change in domestic work time over this period results from the balancing of the technologically generated reduction in women's routine housework against the increase in child care, shopping time, and men's housework (Gershuny and Jones (1987), p.33).

## (v) Men who are more apt to participate in household work

It is commonly believed that changes in the sharing of domestic work begin with young men. It is presumed that young men have different attitudes and that these are reflected in more active participation in household work. This belief is not supported by research findings. Older men use more time for domestic work than younger men. This can be seen from time-use studies carried out in different countries such as Norway, France, Finland, Hungary and Latvia (The Time-Budget Survey 1980-81, p.83; Time Use in France 1985-1986, p.2; Harcsa and others (1988), p.25; Eglite and Zarins (1988), pp.20-21).

Time used for household work has increased steadily in all age groups in those countries where men participate more in domestic work than they did before. This trend can be seen in e.g. Denmark, Latvia, Finland and Norway (Körmendi (1990), p.60; Eglite and Zarins (1988), pp.20-21; Niemi and Pääkkönen (1990), pp.84-85; Haraldsen and Kitteröd (1992), 45).

Socio-economic status seems to be related to the time used for domestic work. In Finland it is found that entrepreneurs spend less time in domestic work than do wage and salary earners (Niemi and Pääkkönen (1990), 43). In Norway and France, farmers use less time for domestic work than other employed persons (The Time-Budget Surveys 1970-1990, p.76; Time Use in France in 1985-1986, p.3).

Leena Kirjavainen ((1989), p.117) has compared time-use profiles in household production between men and women in Finland and in the United States. She found that part-time employment increased the household production of Finnish men in child care, maintenance and shopping but not in strongly traditional female tasks such as housekeeping.

It seems as if an increase in the time used by men for domestic work would require a sufficient increase in time off from paid work. This would explain why men's domestic work increases with age as the time used for paid work decreases. However, such considerations do not explain the breakdown of traditional roles in household work. Any attitude changes must be studied in the light of traditional female domestic work such as housework. Here we find that socio-economic status plays a role. In Finland white-collar men markedly increased their participation in household work in the 1980s. By studying the family cycle we find that the greatest increase in time used for housework is found among fathers with at least two children. The smaller the children are, the more housework the fathers do (Niemi and Pääkkönen (1990), pp.34-37).

#### (vi) Summary

In summary we may conclude that the total amount of household work has not decreased in the last decades. Less time is used for housework than before, but a corresponding increase can be seen in time used for shopping and for child care. Men participate more actively in domestic work than earlier, using more time both for work traditionally considered as clearly being woman's work, such as housework and child care, as well as for less gender-specific activities such as shopping. On the other hand, women have reduced the time they use for housework but have increased it for shopping and, in some countries, also for child care. Women also engage more and more in maintenance-type men's work.

Although gender roles now have less influence determining the division of household work, we observe that, on average, in the 1980s women still did two thirds of all domestic work.

#### 5. Total workloads

#### (i) Employment status and total workloads

The term "total workload" is here used to refer to the overall time spent on paid and household work, including related travel. Its amount varies according to employment (full-time employed, part-time employed, status unemployed, non-employed). We can study these variations from the United Kingdom and Finnish time-use studies (Gershuny (1988), p.109; Time Use Studies in Finland 1979 and 1987). The longest total workloads are found for full-time employed women, both in the United Kingdom and in Finland (table 1.5). Their weekly hours totalled more than 60 hours. Hours in paid work are not completely comparable between the two studies, as meals at work are included in the United Kingdom but not in Finland.

In both countries men working full-time use more time for paid work than do women; but their total workloads are a few hours shorter, because men do significantly less domestic work than women. Women working part-time do more than half their total workload in the form of domestic work. Their total hours are somewhat lower than those for men or women working full-time, and the total workload for housewives is a little lower than that for employed women.

Total workloads do not give the full picture of the work input of parents with small children. The time committed to child care is recorded only when it is the "primary activity", i.e. only for the time of active domestic work. Being with and supervising children does not show up in primary activity. Small children none the less limit their parents' freedom to make individual use of their free time. In Norway it was discovered that, of the time that a mother spends with her children under seven years of age, 55 per cent is used for different kinds of household work, 12 per cent for meals and the remaining 44 per cent for socalled free time (Lingsom and Ellingsaeter (1983), p.60). We thus see that the time committed to children is significantly longer than the time recorded as domestic work.

Johanna Varjonen (1991) has analysed the simultaneity of household work and has developed the simultaneity coefficient for estimating from the net times measured by time-use studies the gross times needed for the activity processes as total. This takes into account inactive periods of being on call, keeping an eye on the children, and of supervision and management, in addition to more active periods of "normal" working and planning. The ratio between gross and net time is called the simultaneity coefficient.

#### (ii) Gender differences in total workloads

The total workload is a sensitive measure in making cross-national comparisons, since differences in the age structure of the samples, for example, are reflected in the results. For this reason, small differences between countries may not be significant and therefore the emphasis in this chapter is on comparisons between men and women within a country.

The total workloads in table 1.6 include education as well as paid work and household work. Time used for travel is not included for Denmark and Hungary, which means that the real figures for total workloads in these countries are higher than is shown in the table. Women have a greater workload on average than men in the United Kingdom, Hungary and Finland. In other countries the workload is approximately the same for men and women.

Total workloads remained fairly stable in the 1970s and the 1980s. They show a slight increase in Canada and in Denmark. No clear-cut reduction can be discerned for any of the countries under study.

The amounts of paid work and household work seem to balance (table 1.5). The decrease in men's paid work has been balanced by an increase in their time spent in domestic work, whereas women have reduced their domestic work as their paid work has increased. As a result of these changes there is a slight convergence between the structures of total workloads for men and

Total	workloads	by	employment	status	in	the	United	Kingdom	and in	Finland	
			(F	lours n	or	11100	L)				

(Hours per week)

			Paid work	Household work	Total
Full-time employed men	United Kingdom	1961	54	9	63
	.=	1974/75	50	9	59
		1983/84	49	13	62
	Finland	1979	44	13	57
		1987	46	14	60
Full-time employed women	United Kingdom	1961	45	22	67
		1974/75	43	21	64
8		1983/84	43	21	64
	Finland	1979	39	25	64
	u	1987	39	24	63
Part-time employed women	United Kingdom	1961	19	39	58
		1974/75	20	33	53
		1983/84	19	37	56
	Finland	1979	20	35	55
		1987	23	34	57
Non-employed women	United Kingdom	1961	-	51	51
	(25-60 years)	1974/75	1	43	44
		1983/84	1	45	46
	Finland	1979	1	49	50
	(housewives)	1987	<b>H</b> ) 2	54	54

Sources: Gershuny (1988), p.109; Time Use Studies in Finland 1979 and 1987.

women, though the traditional domination of paid work by men and household work by women still remains.

#### 6. Trends and changes in free time

#### (i) The amount of free time

The amount of free time has increased since the end of the 1960s. The changeover from a six-day to a five-day working week increased the amount of free time and changed people's weekly pattern. Days off became distinct from working days and even the daily pattern changed. People now sleep less on working days and more at weekends. In addition to increased free time at weekends, the length of the yearly vacation was extended for wage and salary earners in many ECE countries during the 1970s and the 1980s. The last decade saw the beginning of an active debate over the issue of reducing working hours. Longer vacations mean that the periods of work and leisure are now separated both temporally and geographically.

Time-use studies usually concentrate on the study of everyday life. We therefore examine here how people spend their weekly leisure time. The amount of free time varies among population groups: it is most abundant among unemployed men and male pensioners and least among full-time employed women. Cross-national differences are influenced by national agreements on working hours, by the frequency of overtime and secondary work, and by the time used for domestic work. Total workloads are longer in the east European countries than in other ECE countries. A comparative time-use study of the United States and the former Soviet Union (Robinson and others (1988), pp.65-73) revealed that an employed American man in the city of Jackson has two hours more free time per week and women as much as nine hours more free time than a Soviet citizen resident in the city of Pskov. This is due to the fact that weekly working hours are five hours longer for men and seven hours longer for women in Pskov. A comparison of time-use in Hungary, Poland and Finland showed that Finns clearly have more free time than people in Hungary or Poland (Andorka and Harcsa (1986), pp.19-20).

A comparison based on the Multinational Timebudget Archive shows that leisure time increased substantially faster in the 1960s and 1970s than it did in the 1980s (figure 1.5). Total leisure time has fallen back somewhat in some countries (the UK and the Netherlands) in the more recent past (Gershuny (1988), p.111). The figure also shows that the trend in changes in free time within countries is the same for both men and women.

In Canada in the 1980s the amount of free time decreased by five hours per week for men and four hours for women from 1981 to 1986 (Harvey (1989b)). In Hungary, both men's and women's average free time has increased a little (Idömerleg (1987), pp.60-63). In Finland women's free time has increased a little, but men's free time has remained the same as at the end of the 1970s (Niemi and Pääkkönen (1990), p.45). Changes in free time in the 1980s thus did not follow the same direction in all countries.

Figure 1.5





Sources: 'Gershuny and Jones (1986) p.114.

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#### Total workloads by sex in certain ECE countries (Hours per week)

		Male	Female
Canada (15+ years, urban)	1981	52	52
	1986	55	53
Denmark (16-74 years)	1964	47	45
	1975	44	43
	1987	46	45
Finland (15-64 years)	1979	52	58
	1987	53	57
Hungary (15-69 years)	1977	53	60
	1986	53	59
Norway (16-74 years)	1971/2	57	57
	1980/1	53	54
	1990/1	53	54
United Kingdom (25-60 years)	1961	53	63
	1974/5	48	58
	1983/4	48	58

Sources: Harvey (1989b); Körmendi (1989), p.44; Time Use Studies in Finland 1979 and 1987; Idömerleg (1987), pp.60-62; Haraldsen and Kitteröd (1992), p.74; Gershuny (1988), p.96.

#### (ii) The content of free time

The way free time is used has varied from one decade to another. The changes that have taken place in the United Kingdom mirror the trends for other countries as well. The structure of free time has undergone different changes during the two periods under study (1961 to 1974; 1975 to 1983/84). The only common feature is the continuous growth in the time used for outdoor activities: sport, walking and other outdoor activities have expanded in all population groups (for instance, between 1961 and 1984 time spent on outdoor activities increased from 29 minutes to 55 minutes a day for employed men and from 15 minutes to 38 minutes a day for employed women). Other free time activities outside the home developed in different directions. There was an upsurge in visits to pubs, clubs and the cinema, for instance, from the 1960s to the mid-1970s, but this turned into a sharp decline by the mid-1980s. There was a simultaneous increase in passive household leisure activities, i.e. in watching television and listening to the radio and music (Gershuny and others, (1986)).

In Norway, too, the bulk of the increase in free time in the 1970s was absorbed by television viewing. The increase in television viewing in Norway was mainly due to the fact that a growing number of people watched television daily. The average viewing time, on the other hand, did not grow.

Aside from the increase in television viewing, there has been an increase in family-centred free time activities in Norway. More time is spent in conversation with family members, listening to records and cassettes or working on craft projects. Women show a slight increase in reading. Thus, the adult population spends much of its increased free time at home. In addition, there has been an increase in physical exercise. Young people, on the other hand, spend an increasing proportion of their free time outside the home (The Time-Budget Survey, 1980-81, pp.98-103).

The Lithuanian survey also reveals the changes that occurred in free time activities in the 1970s (Mitrikas (1987)). There has been an increase in family-centred free time activities, which appears especially in increased television viewing. At the same time, there has been a reduction in the time used for reading newspapers and magazines, listening to the radio, going to the cinema and, in particular, visiting and entertaining friends and relatives. These are the same activities that were seen to give way to television in the United States of the 1960s.

Thus, the content of free time has varied depending on the period concerned. One central trend is, however, observable throughout the world: the revolutionary impact of television on the use of free time. In the United States the impact of television was apparent as early as the 1950s; in the rest of the world it was a little later on.

In the 1960s considerably more time was still spent outside the home than was the case in the late 1970s, when people increasingly tended to withdraw to the privacy of their homes to spend an evening with the family and to watch television. Of activities outside the home, physical exercise has increased in some countries; but the general trend has been an increase in passive free time activities. Signs of a more active content of free time can however be found both in Denmark and in the Netherlands. In Denmark the amount of free time spent outside the home has increased. Participation in organisations and meetings tripled from 1964 to 1987 (Körmendi (1989), p.63). Also in the Netherlands, active free time use increased between 1975 and 1980. The increase in employed men's free time has been used more for studying, participating in

#### Free time of 15-64 year olds by sex in Finland (1987) and Hungary (1986) (Minutes per day)

	Fin	ıland	Hur	ngary
Activity	Male	Female	Male	Female
Study	4	5	2	1
Organizations	7	7	3	3
Movies	1	1	4	2
Sport events	3	1	1	-
Culture, entertainment	2	2	-	-
Visits	31	42	5	6
Café, pub	12	6	8	1
Conversations	20	29	33	37
Active sport	25	8	7	1
Walks	11	13	6	5
Hobbies, handicrafts	18	27	9	19
Books	12	17	10	11
Newspapers	32	25	14	6
Magazines	7	7	11	10
Radio	12	9	3	2
Television	111	90	105	95
Records	5	4	5	2
Resting and other	24	18	19	18
Free-time total	337	311	245	219

Source: Babarczy and others (1991), p.29.

organisations or volunteer work, and in sports and hobbies rather than in television watching (Sociocultural Studies (1983)).

#### (iii) Men's and women's free time

Differences between the sexes in the use of free time can be examined from the time use study comparing Finland and Hungary (Babarczy and others (1991), p.29). As we can see from table 1.7, a considerable part of both men's and women's free time is spent in front of the television. Men are slightly more avid television watchers than are women. This can be seen in most time-use studies and is partly due to the fact that men have more free time per day than do women.

Women's social activities are more clearly home-centred than men's. It is more usual for men's social activities to be in pubs, cafés, and the like. Women usually spend slightly more of their free time at home than do men.

Men use more time than women do for reading newspapers; and they clearly engage more in active sports than women do. There are no differences with regard to taking walks. However, women more frequently go to their jobs or go shopping on foot or by bike than do men, who prefer to go by car.

From the directions of free time changes we discover that there has been some convergence of men's and women's ways of using free time. The differences in time used for reading have diminished. Men used to participate more regularly than women did in organizations; this difference disappeared in both Hungary and Finland in the 1980s.

Handicrafts, which can be regarded as a traditional free time activity for women, have decreased drastically in Finland. Women used a total of 35 minutes per day for handicrafts as a primary and secondary activity as late as 1979, but only 21 minutes in 1987. The reduction can be seen in all age groups, but it is greatest in the 20-44 year age group.

Men's cinema-going has decreased in Finland, probably due to the growing number of video sets. This means that men and women now go equally frequently to the cinema.

The same convergence of men's and women's use of free time has been noticed for other countries as well. Gershuny ((1988), p.119) noted that time spent watching television in different countries seems to be converging: women have increased their television viewing somewhat, whereas that of men shows a marginal reduction.

In the United Kingdom it was noticed that the time spent studying and reading stayed overall the same for men but increased for women. Moreover, the reduction in the almost entirely sex-segregated knitting and sewing activity group is matched by an increase in the non-segregated "hobbies" category (Gershuny (1988), pp.113-114).

Men's pub-going in the United Kingdom increased markedly from 1961 to 1974-75, since which time there has been a small decrease. Women's pub-going increased very substantially after the mid-1970s, greatly diminishing the traditional sexual segregation of this activity, as Gershuny puts it (Gershuny (1988), p.113).

#### Equality ratios in main categories of time use in some ECE countries

(Equa	lity ratio = mean time	e used by women/mear	(Equality failo = mean time used by women/mean time used by men)					
		Paid work Education	Household work	Personal needs	Free time			
Canada (15+ years, urban)	1981	0.6	1.8	1.0	1.0			
	1986	0.6	2.1	1.0	1.0			
Denmark (16-74 years)	1964	0.3	10.0	1.1	1.0			
	1975	0.5	3.2	1.0	1.0			
	1987	0.7	2.0	1.0	1.0			
Finland (15-64 years)	1979	0.8	2.0	1.0	0.9			
	1987	0.8	1.8	1.0	0.9			
Hungary (15-69 years)	1977	0.7	2.8	1.0	0.8			
	1986	0.6	2.9	1.0	0.9			
Norway (16-74 years)	1971/72	0.4	2.7	1.0	0.9			
	1980/81	- 0.6	2.0	1.0	1.0			
	1990/91	0.7	1,7	1.0	1.0			
United Kingdom (25-60 years)	1961	0.8	1.9	1.0	0.8			
	1974/75	0.8	1.9	1.0	0.8			
	1983/84	0.9	1.7	1.0	0.8			

Sources: Harvey (1989b); Körmendi (1989), p.44; Time Use Studies in Finland 1979 and 1987; Idömerleg (1987), pp.60-62; The Time Budget Survey, 1970-90, p.44; Gershuny (1988), p.96.

The changes in free time thus look different for men and women. At the same time as domestic work has decreased, handicrafts, a hobby closely related to domestic work, have lost much of their popularity among women. Women are becoming more involved in outside free time activities, in participating in organisations, meeting friends in pubs, etc. Women's increased activities outside the home may be related to women's higher participation in gainful employment. In countries with longer traditions of women's employment this recent pattern of more active use of free time is not seen.

## 7. Changes in the structure of total time use - a summary

The structure of time-use changed slowly from the 1920s and 1930s to the 1960s, when there was a switch from the six-day to the five-day working week. This switch did not concern women to any great extent, as their work was centred on the home.

Women's domestic workload started to decline in the 1950s and 1960s as a result of advances in technology. In the 1970s great numbers of married women in western Europe took up gainful employment. In the first place this involved women who did not have children but, later on, employment became common among mothers as well. About this time men's attitudes towards household work changed and a slight rise in their domestic work input can be seen in most ECE countries. At the same time the time spent by women on household work continued to decrease.

In this section we examine the changes in the total use of time by women and men from the 1960s to the present day. Has there been any convergence in the structure of men's and women's time use and, if so, in what main categories? Table 1.8 examines equality ratios between. Women's use of time is related to the time used by men. An index number equal to 1 means that time use is the same by both sexes, an index less than 1 means that women use less time for the activity in question, and an index number greater than 1 expresses how many times greater the time used by women is compared with the time used by men.

As we see from the table, women use less time for paid work than men do. The equality ratios vary by country but we see a clear tendency towards converging patterns of participation in paid work during the last decades. Women's share of household work clearly decreased in Norway in the 1970s and in Denmark between the 1960s and the 1980s. In the United Kingdom women's share of domestic work remained unchanged from the 1960s to the mid-1970s, after which it decreased, i.e. men increased their household work input. During the 1980s men's share of domestic work grew in Finland but decreased in Canada and Hungary.

The time used for personal needs shows very small differences between the sexes. On the other hand, there is still less free time for women than for men in some countries, although changes over time suggest that this difference is shrinking.

In sum, we see that the basic structures of time use by women and men still differ - men continue to have the principal responsibility for paid work and women that for household work - but the general trend is for these time-use structures to converge.

## 8. Appendix: Utilizing time-use data in international comparisons

## (i) The benefits of time-use studies in making international comparisons

In the late 1960s the Multinational Time-Budget Research Project carried out pioneering work in developing the methods of gathering and analysing data applicable to comparative time-use studies. The object measured in these studies should not be viewed as time itself but as the social behaviour of human beings as measured in time-units. Time measurement offers an international unit of measurement which can be used in different cultures to measure the duration, sequence and timing of activities.

Time-use data is gathered via time-diaries kept by the respondents themselves or by the interviewer. The respondents' activities at different times during the day are entered in the diary in time sequence. The recall period is short, which increases the reliability of the material. The universality of social behaviour - people all sleep, eat, obtain and prepare food etc. - makes a comparison between different cultures possible. The respondents do not do the coding themselves but it is done under the guidance of the researcher according to a common system of activity classifications. This avoids definitional differences due to subjective interpretations and makes it possible to apply the international classification on a national basis.

The strong side of the time-budget method is that all activities are treated equally. When all the activities of the 24 hours are studied in chronological order, no single activity is considered by the respondent as more important than any other. This way of measurement avoids "bias depending on social desirability". The problem with studies of specific activities is that the respondent consciously or unconsciously tries to give a positive picture of him/herself with respect to the phenomenon under study. The concurrent measurement of several activities dispels this tendency to change answers. Studies of the reliability and validity of time-use studies indicate that the method can measure behaviour accurately (Robinson (1985) and Juster (1985)).

The time-budget technique is one of the most useful ways of measuring changes in social behaviour. Limiting the study to 24 hours automatically introduces a sensitivity in exploring changes: time removed from one activity is necessarily transferred to some other activity.

#### (ii) Problems with international comparisons

Problems with international comparisons are related to differences in sampling, data collection, definitions and tabulation. In preparing this report I encountered many difficulties that relate to the comparison of time-use studies made in different countries, when the material at hand consists of final research reports.

Samples vary according to population. Some studies are restricted to a single area, others cover the entire country. The age structure of samples varies, ranging from a small age group to the whole population, as in the most recent time-use study in Bulgaria. In some countries the study covers only specific population groups such as the employed and housewives, so that the unemployed, pensioners and students are omitted.

Time-use varies seasonally but, unfortunately, the timing of the field work also varies. The majority of the studies were carried out in only one season. Studies covering the entire year are now being carried out more frequently as data collection is transferred to statistical authorities.

However, differences related to the definition of variables are harder to discover than differences in samples. Variables that look the same may have a different content. Even if we use the activity categories of the Multinational Time-Budget Research Project as a basis, differences in detailed definitions may still remain. The statistical offices in the Nordic countries have agreed to run a project to compare their time-use studies. In the initial stages of the work we clarified the comparability of the activity classifications. We were surprised to note the differences in coding that relate to activities with the same label in different countries (e.g. visits, care of children, meals, travel). These differences exist despite the fact that we cooperated in the planning stage of the studies.

In addition to differences in time-use codes there are also differences in the background variables used. The central background variable in this report is employment status. Time used for paid work is sensitive to how the term "employed" is defined - it may be based on people's own answers or on ILO definitions, and it may vary according to how the ILO definitions are applied. The tables shown in the survey reports vary to the extent that it is impossible to find equivalent tables in the publications. Although data according to sex can be found from the tables, they differ in their age groupings, as can be seen in this report. Age groups at the outer limits are especially sensitive to variations in time-use - the youngest age group is changing over from education to work and the oldest age group from work to retirement - and even small differences in age structure may affect the results and weaken comparability. It is thus very difficult to compare final time-use study materials as long as there are no international recommendations and every research project develops its own method for data collection and processing and reports the data in its own way.

#### (iii) The need for standardization in time-use research

International comparability presupposes uniformity in data collection, coding and presentation. The Multinational Project in the mid-1960s set the basis for a standardization of the time-budget method. However, the extension of the coverage of the studies from single cities to entire countries demands further progress in standardization. The transfer of time-use studies to national statistical offices means, for example, that international statistical classifications will also have to be applied to the work on time use studies.

Initiatives for harmonized time use surveys are currently being made by Eurostat for European countries and by UN/INSTRAW for Third World countries.

#### References

- R. Andorka and I. Harcsa (1986), "Economic development and the use of time in Hungary, Poland and Finland", in D. Ås, A. Harvey, E. Wnuk-Lipinski and I. Niemi (eds.), *Time Use Studies: Dimensions and Applications*, Central Statistical Office of Finland, Studies 128, Helsinki.
- R. Andorka, I. Harcsa, and I. Niemi (1983), Use of Time in Hungary and in Finland, Central Statistical Office of Finland, Studies 101, Helsinki.
- D. Ås (1978), "Studies of Time-Use: Problems and Prospects", *Acta Sociologica*, No.15(2), pp.125-141.
- (1986), "The most permanent ad hoc group", in D. Ås, A. Harvey, E. Wnuk-Lipinski and I. Niemi (eds.), *Time Use Studies: Dimensions and Applications*, Central Statistical Office of Finland, Studies No. 128, Helsinki.
- A. Babarczy, I. Harcsa, and H. Pääkkönen (1991), *Time use trends in Finland and in Hungary*, Statistics Finland, Studies 180, Helsinki.
- S.F. Berk and A. Shih (1980), "Contributions to Household Labor: Comparing Wives' and Husband's Reports", in S.F. Berk (ed.), Women and Household Labor, Volume 5, Sage Yearbook in Women's Policy Studies, London.
- P. Eglite and I. Zarins (1988), *Changes of Time Use of the Town Population in the Latvian SSR*, The Academy of Sciences of the Latvian SSR, Riga, Latvia.
- J.I. Gershuny (1983), Changing Use of Time in the United Kingdom: 1937-1975, the Self-Service Era, Reprinted from Studies of Broadcasting No. 19.
  - \_\_\_\_\_ (1988), Changing Times. The Social Economics of Post-industrial Societies, University of Bath.
  - (1989), "International Comparisons of Time-Budget Surveys: Methods and Opportunities", Paper presented in Wissenschaftliches Kolloquium in Wiesbaden, Germany.
- J. Gershuny and S. Jones (1986), *Time Use in Seven Countries* 1961 to 1984, University of Bath.
- \_\_\_\_\_ (1987), "The changing work/leisure balance in Britain, 1961-1984", in *Sociological Review Monographs*, No.33 (January), pp.9-50.
- J. Gershuny, I. Miles, S. Jones, C. Mullings, G. Thomas and S. Wyatt (1986), "Time-Budgets: Preliminary Analyses of a National Survey", in *The Quarterly Journal of Social Affairs*, No.2(1), pp.13-39.
- J. Gershuny and J.P. Robinson (1988), "Historical Changes in the Household Division of Labor", *Demography*, 25(4), pp.537-552.
- S. Grönmo, G. Haraldsen, and S. Lingsom (1988), "Age differences in time use: stability and change in Norway in the 1970s", Paper presented at the Meeting of the International Research Group on Time-Budgets and Social Activities in Budapest.

- G. Haraldsen and H. Kitteröd (1992), Dognet rundt. Tidsbruk og tidsorganisering 1970-1990 (Throughout the day. Time use and time organization 1970-1990), Statistisk Sentralbyra, (Central Statistical Office), Sosiale og okonomiske studier 76 (Social and economic studies), Oslo.
- I. Harcsa, I. Niemi and A. Babarczy (1988), Use of Time in Hungary and in Finland II. Life Cycle and Time Use, Central Statistical Office of Finland, Studies 142, Helsinki.
- A. Harvey (1984), Proposal for Multinational Cooperation in Time-Budget Research, Saint Mary's University, Halifax, Nova Scotia.
  - (1989a), *Guidelines for Time Use Data Collection*, Saint Mary's University, Halifax, Nova Scotia. (1989b), "Canada: Comparison of 1981 and 1986
  - Time Use", Paper presented in the Time-Budget Research Meeting in Varna.
- Idömerleg II (1982) (Time Use II), Hungarian Central Statistical Office, Budapest.
- Idömerleg 1977 es 1986 tavasza (1987) (Time use 1977 to the Spring of 1986), Hungarian Central Statistical Office, Budapest.
- F.T. Juster (1985), "The Validity and Quality of Time Use Estimates Obtained from Recall Diaries", in F.T. Juster and T. Stafford (eds.), *Time, Goods, and Well-Being*, The University of Michigan, Ann Arbor.
- L. Kirjavainen (1989), *Time-use and its value in Household Production in Finland and the United States*, University of Helsinki.
- E. Körmendi (1989), "Tidsanvendelse gennem et kvart århundrede" (Time use throughout a quarter of a century), in
  E. Ib Schmidt, E. Körmendi, G. Viby Mogensen, and J. Vibe-Pedersen, 24 timer i dögnet, (Twenty-four hours a day), Viborg.
- (1990), "Time use trends in Denmark", in Viby Mogensen G. (ed.), *Time and consumption, Time use and consumption in Denmark in recent decades*, Copenhagen.
- S. Lingsom and A.L. Ellingsaeter (1983), "Work, leisure and time spent with others, changes in time use in the 70s", Central Bureau of Statistics of Norway, Statistiske analyser 49, Oslo.
- M. Minkov (1989), "Time-Budget and the social status of the Bulgarian population", Paper presented in the Time-Budget Research Meeting in Varna.
- A. Mitrikas (1987), The Investigation into Time-Budgets of the Employed Population of the Lithuanian SSR, Lithuanian Academy of Sciences (unpublished paper).
- I. Niemi and A. Ekholm (1986), "The effect on time use by reduced hours of work", Paper presented in the Soviet-Finnish Workshop on time-budget studies in Suzdal.
- I. Niemi and H. Pääkkönen (1990), "Time Use Changes in Finland in the 1980s", *Central Statistical Office of Finland, Studies* No.174, Helsinki.
- I. Niemi and B. Anachkova (1992), "Sharing of housework", in L. Kirjavainen, and others, Housework Time in Bulgaria and Finland, *Statistics Finland, Studies* 193.
- I. Niemi, P. Eglite, A. Mitrikas, V.D. Patrushev and H. Pääkkönen (1991), "Time Use in Finland, Latvia, Lithuania and Russia", Central Statistical Office of Finland, Studies 182, Helsinki.

- J.P. Robinson (1985), "The Validity and Reliability of Diaries versus Alternative Time Use Measures", in Juster F.T. and Stafford F.P. (eds.), *Time, Goods, and Well-Being,* The University of Michigan, Ann Arbor.
- J.P. Robinson, G. Andreyenkov and V.D. Patrushev (1988), *The Rhythm of Everyday Life, How Soviet and American Citizens Use Time*, Boulder, Colorado.
- J.P. Robinson and P. Converse (1972), "Social Change as Reflected in the Use of Time", in A. Campbell and P. Converse (eds.), *The Human Meaning of Social Change*, New York.
- A. Szalai (1966), "Trends in Comparative Time-Budget Research", *The American Behavioral Scientist*, 9 (May), 3-8.
- A. Szalai (ed.) (1972), The use of time. Daily activities of urban and suburban populations in twelve countries, The Hague.
- The Time-Budget Survey 1980-81 (1983), Central Bureau of Statistics of Norway, Norges offisielle statistikk B 378, Oslo.

*The Time-Budget Surveys 1970-1990* (1992), Central Bureau of Statistics of Norway, Norges offisielle statistikk C 10, Oslo.

*Time Use in France in 1985-1986* (1987), INSEE, Premiers Resultats No.100, Paris.

- The Time Use Study in Finland 1979, Unpublished tables, Central Statistical Office of Finland.
- The Time Use Study in Finland 1987, Unpublished tables, Central Statistical Office of Finland.
- J. Vanek (1974), "Time spent in housework", *Scientific American*, No.231(5), pp.116-120.
- Social and Cultural Planning Office (1983) "Waar blieft de tied" ("Where does the time go?"), *Sociocultural Studies* No.4, The Hague.
- United Nations (1985), The Economic Role of Women in the ECE Region, Developments 1975/85, New York.
- United Nations (1980), *The Economic Role of Women in the ECE Region*, New York.
- United Nations (1991), *The World's Women 1970-1990*, Trends and Statistics, New York.
- J. Varjonen (1991), "Simultaneity of Activities in Household Work", University of Helsinki, Publications of the Department of *Household Economics* 1/1991, Helsinki.
- J. Zuzanek (1980), Work and Leisure in the Soviet Union, A Time-Budget Analysis, New York.

## **ECONOMIC ACTIVITY AND WOMEN'S TIME USE**

by Jonathan Gershuny

#### 1. Introduction

#### (i) Women's work and employment experience

"Work and employment" is, of course, not tautology. Most adults spend a large proportion of their lives in activities which are outside the realm of paid employment, but are nevertheless work-like. Activities such as cooking, cleaning, and perhaps to a more limited extent child care and shopping, are undertaken as obligations; the first two of them are, for the most part, instrumental activities (i.e. they are means, not ends in themselves). In principle, it is possible to purchase services to substitute for the unpaid labour involved in these tasks.

The activities involved in paid and in unpaid work are similar in some respects; but there are also important differences between them. Paid work is inter alia a source of various non-pecuniary benefits (in particular, the social status attached to jobs); and the presence of the worker in the work place provides the possibility of sociable interaction with co-workers (Jahoda (1983)). Unpaid work does not in general provide these benefits. Paid work and unpaid work are also (though, as we shall see, to a decreasing degree) partially segregated by gender. The reason for considering the two classes of work together in this chapter has to do with the process of desegregation. We will find that there is a relatively slow increase in men's responsibility for unpaid work and that this has substantial negative consequences for women. It reduces their access to, and performance in, paid work and it leads to an inequitable "dual burden". Women entering paid work maintain a substantial proportion of their previous domestic responsibilities (Young and Willmott (1974)); the result is that their total of paid and unpaid work is much higher than that for otherwise equivalently placed men.

#### (ii) The organization of the discussion

This chapter is divided into two main sections. The first deals with women's employment, specifically, age/participation rates for women as compared with those for men, in a wide range of European countries. The expected major gender difference emerges: women's participation is substantially reduced during the middle part of working life (we may infer that this reflects the burden of family responsibilities outside the workplace), whereas men's participation shows no such influence. The data used ranges from the early 1960s to the late 1980s and striking changes are seen over this period. Women's participation increases markedly over time, in each country and throughout the age range; in some countries the influence of family responsibilities is maintained but, in others, it has nearly disappeared as women's participation comes to resemble that of men.

The second section uses time-budget data to examine the relationship between employment status and the full range of women's and men's activities. The inference of gender differences in work responsibilities in the home is shown to hold true in a wide range of different countries. Employed women, even full-time employed women, maintain (though to a reduced degree) their extra work at home; this supports the view that women in the workforce bear a "dual burden". Of equal importance perhaps is the gender difference in the balance between the two sorts of work. It emerges that, even where the total of paid and unpaid work may reach approximate equality between men and women, women in full-time work spend a much shorter time in paid work and do much more housework than men in equivalent positions. Women may therefore be significantly disadvantaged in the competition for jobs in the workforce.

Women's remaining differential responsibility for unpaid work has a particularly critical importance in families with children: women's participation in the labour market during the family formation phase of the life cycle seems to depend on the availability of an alternative mechanism for caring for children (this is not the case for men). Two such mechanisms emerge: children may be cared for in full-time nurseries; or the mother may combine part-time paid work with part-time, perhaps unofficial, child care. In countries with low levels of participation, neither of the mechanisms are widely used. Some countries seem to use one or the other of these mechanisms, and have medium levels of women's participation. The highest levels of women's participation are found where both mechanisms are used.

#### 2. Women's and men's participation in paid work

This section outlines how participation in paid work has changed over recent history. Initially, and for reasons that will emerge directly from the evidence discussed in this section, we shall treat full and part-time work together. Part-time work is discussed in later paragraphs.

The major data sources for multinational comparative employment statistics are the ILO Yearbooks. Although these are an invaluable resource, the evidence they contain is not always entirely reliable for the purposes of international comparison.<sup>1</sup>

It is helpful to look not just cross-sectionally, but also longitudinally. We shall see striking changes over recent history. What follows covers change over nearly three decades, from the early 1960s onwards. It has been necessary therefore to combine material from a number of different *Yearbooks* dating from the mid-1960s through to the late 1980s.<sup>2</sup>

#### (i) Labour force participation

We may draw a certain degree of comfort, in a somewhat roundabout way, from the results of the comparison. When we look separately at trends in the men's participation rate, we find a strikingly constant cross-national pattern, which is, furthermore, reassuringly similar to our *a priori* expectations. The very similar trends from a large number of different countries which we will see in the following pages, may be said to be mutually reinforcing, in the sense that similarities between two countries that might be dismissed as potentially spurious,

<sup>2</sup> Our worries about the cross-national comparability of the data are redoubled by the undoubted fact of intra-national variation over historical time. We find cross-national differences in trends: Do these reflect genuine differences in behaviour or are they artifacts of the particular data definitions and collection methods used in the various countries at particular points in time?

can hardly be dismissed in the same way when they recur among twenty countries. The implication of the cross-national similarities in the men's data is presumably that the results are quite sound with respect to minor variations in definition and collection methods. The definitions and estimation procedures are, for our purposes, identical for men and women in a particular country at a particular date: we may perhaps infer that the much greater degree of difference in estimates of trends in women's participation across countries is not an artifact of estimation methods. It might be objected that, though the systems of definition and estimation are identical, they have a different impact on men and women because of gender differences in real participation rates. (For example, if all adult men intend to seek jobs, whereas some adult women wish to remain non-employed for particular periods, then cross-national differences in the treatment of work-intentions in the definition of participation will have serious implications for the comparability of women's data, without affecting the cross-national comparison of men's data.) Nevertheless, we proceed with the analysis on the basis that the information from the ILO Yearbooks is the best available data source.

The work described here has involved the processing of data covering the whole of the period from the early 1960s to the late 1980s. Overwhelmingly, we have found monotonic movements, the historical changes in participation rates for particular groups have all been in one direction. The following paragraphs therefore take the earliest and latest available data, which can be regarded as the beginning and ending points of continuous processes. Our primary focus is on the development of women's employment; but since the gender-specific changes in women's employment interact with other changes in the labour market, the impacts of which are common to both sexes, we shall start by considering men's employment.

Men's age/participation rate patterns emerge from the data as very similar cross-nationally (figures 2.1 (1) -2.1 (3)). We find minor variations, but the general description is invariable over time and country. The pattern is exactly as we would have expected. It invariably shows the characteristic inverted U-shape, a three-phase pattern: first, the rising trend, as men leave the full-time educational system and enter paid work (in this work-entry period, more detailed data reveal frequent "job episodes" perhaps separated by brief periods of unemployment); then the stable mid-period, throughout which 90-95 per cent of men are in the labour force (the more detailed statistics show that men are very seldom employed part-time); and finally, the declining participation of the work-ending period, in which the male workforce gradually withdraws. There is no evidence of any substantial influence of their stage in the family cycle on men's labour force participation (i.e. we find no suggestion of withdrawal from the labour force during the period of family formation, either from this or from studies which use micro data). There is, however, a suggested connection between the transition from the first to the second phase of men's participation pattern (from the relatively unstable to stable), and the processes of household and family formation.

<sup>1</sup> In any one volume, we find tremendous variation between countries, not merely in methods of estimation but also in what is estimated. The statistics provided to the ILO by national statistical authorities may be collected through a number of very different methods: they may come from special or general-purpose population samples, from a comprehensive employment or other census, or from records of registration of employment for tax or social security purposes; and they may rely either on reports from individual workers or from employers. Each of these approaches will lead to specific biases in estimation. Perhaps of more importance for our concern with workforce participation is that what is estimated may vary according to national regulations or definitions. The state may, for example, place lower limits on numbers of hours or days of work to qualify as labour force participation. (For example: Does someone working four hours every second week count as employed?) There are cross-national variations in procedures for differentiating between unemployment and non-employment. (To take two extremes: What is the status of someone not drawing unemployment pay who, when interviewed, claims to be looking for a job, as compared to someone drawing unemployment pay but not actively looking for a job?) These inevitable shortcomings of any multinational statistical compilation leave scope for enormous variation, with particular relevance for the estimation of women's employment status.













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The patterns of change over time are also very clear. The entry to the first phase and the transition to the second is delayed almost everywhere. This is clearly a result of growth in the level of educational provisions. Throughout Europe we find a postponement of the end of full-time education, and also in some countries, the spread of an "apprenticeship-type" mixture of training and (low-) paid work, which may (as in the German case) be counted in the official statistics as educational participation rather than employment.

The third phase is also very clear. Withdrawal from the workforce takes place at an earlier age, in all countries without exception. Three explanations suggest themselves: (1) compulsory, state-supported pensions, combined with an occupational transition into jobs with pension rights over and above the minimum level established by law, reduce the scale of the drop in income that follows retirement (i.e. a pull from the pension); (2) there is a corresponding push in the growth of compulsory retirement from particular occupations and in earlier retirement ages; and (3) there are straightforward demographic factors: lower mortality rates mean that more men can expect to survive to retirement, thus amplifying the consequences of the first two factors for the overall rate of employment of adult men.

Both the later entry and the earlier withdrawal result from what are fundamentally institutional factors (education and retirement, together with the consequences of medicine and public health). Overall, they result in a quite marked reduction in the male participation rate. We see in table 2.1 that the participation rate of men aged 20 to 60 has fallen in each of the countries for which we have adequate age-participation data (with Sweden as a single exception). Nevertheless, despite the reduction in the overall participation rate, the generalization that all men want jobs throughout the middle of their adult lives, still holds good. There is a paradox: the reduced overall adult participation rate says nothing necessarily about men's lifetime commitment to the workforce. Simply, participation in the labour force is now concentrated in a smaller proportion of (what are, in general, longer) active lives.

The same institutional factors also make an impact on women. Indeed, it might be said that they have a greater impact on women: the growth of tertiary educational provision has certainly been much more marked for women and in some countries women have earlier retirement. So the changes we will encounter in the women's data that we may suspect relate to changes in work commitment, are superimposed on a pattern of change, common to both women and men, which has a primarily institutional origin independently the individuals' and operates of psychological orientation to work.

The first group of women's age/participation plots (figure 2.2) have the characteristic that is sometimes described as, "M-shaped" (Dale (1989)), with four distinct phases. There is first an entry phase, which is considerably

TABLE	2.1

Employment by sex: Europe 1960s to 1980s (Participation rates, ages 15-60)

	19	60s	19	30 <i>s</i>
	Men	Women	Men	Women
Belgium	0.93	0.31	0.87	0.51
Denmark	0.93	0.43	0.89	0.80
France	0.88	0.44	0.80	0.60
Western Germany	0.93	0.50	0.86	0.58
Greece	0.85	0.40	0.76	0.42
Ireland	0.90	0.33	0.83	0.38
Italy	0.90	0.29	0.80	0.46
Luxembourg	0.88	0.32	0.83	0.46
Netherlands	0.92	0.27	0.83	0.52
UK	0.91	0.53	0.84	0.61
Portugal	0.95	0.19	0.83	0.58
Spain	0.93	0.19	0.79	0.38
Austria	0.92	- 0.57	0.86	0.58
Finland	0.89	0.55	0.84	0.77
Norway	0.90	0.27	0.87	0.75
Sweden	0.84	0.46	0.88	0.84
Furkey	0.93	0.61	0.84	0.36
Yugoslavia	0.94	0.46	0.88	0.54
Bulgaria	0.87	0.73	0.82	0.79

Sources: ILO Yearbook. Various issues

shorter than the equivalent male phase and is followed by a reduction in the aggregate participation rate. The obvious inference, given that the second phase is found in women in the mid-20s to mid-30s, the main childbirth and child-rearing period, is that we see here the influence of child-care responsibilities (this is, of course, no more than an inference from the evidence in figure 2.2 but it is an inference which we will be able to support more directly in the course of this paper). The third phase starts in the middle of the woman's fourth decade, when the participation rate increases, only to decrease again (the fourth phase) from the middle to the latter part of the fifth decade. We may refer to four phases in the aggregate data, though these are only aggregate patterns. Real-life patterns within the "M-shaped" group are very much more complex, with some women never leaving the workforce, irrespective of their child-care responsibilities, while others have multiple entries and exits related to childbirth and childcare periods.

We might turn for a moment from the multinational comparative material to look in more detail at this question of the influence of child-care responsibilities. Figure 2.3 is drawn from United Kingdom work history data (the source is the 1987 Social Change and Economic Life survey; this material is discussed in Marsh and Gershuny (1991)). It shows how women's participation rate is related to their family status. Virtually all women with no children have paid jobs, while those with very young children usually do not (it is, strictly speaking, not child-care responsibilities that are indicated here, but only the presence of children in the household). Over the period we are concerned with, there has been an increase in the participation rate for any


Figure 2.2 - (1) Labour force participation rates, by age: women (Percentages)



Figure 2.2 - (2) Labour force participation rates, by age: women (continued) (Percentages)















Figure 2.3 Women's labour force participation rates by age of youngest child

Source: SCEL work history data, unpublished (described in Marsh and Gershuny (1991)).

given child status, but the ranking stays unchanged: the younger the youngest child in the household, the lower the participation rate; and even where the youngest child is in secondary schooling, the mothers' participation rate is substantially below that of women of the same approximate age with no resident children. The sharply defined difference in participation rate between women with and without children must imply a causal association and this pattern of withdrawal from work with the arrival of children is found in a significant group of countries within the multinational data. The "M-shaped" group includes the UK, Austria, the Netherlands, and Germany, while France, which was clearly a member of this group at the beginning of our period, has almost arrived in the next group by the end of it.

The M-shaped pattern is not invariable. We might identify in the figure 2.2 data a "Nordic" group (which however includes in addition to the Nordic countries, Bulgaria and, oddly, Portugal), characterized by a current age/participation pattern quite similar to the three-phase male pattern. (Note that each of these countries looked rather more like the M-shaped group in the 1960s.) Consider, for example, Sweden: the 1987 age/participation rates are somewhat lower than the equivalent men's, but only by a few percentage points. Norway, Finland and Denmark have very similar patterns. We may infer from this evidence that women in the "Nordic" group have only very brief periods outside the workforce, around the time of the birth of children (or else they take maternity leave while still being counted within the workforce). It is not surprising that the one east European country for which we have suitable data shows a pattern similar to that of the Nordic one; the presence of Portugal in this category is, however, unexpected.

Finally we see a "Mediterranean" group characterized by a low, essentially two-phase (entry/exit), pattern. In addition to the genuinely Mediterranean Spanish, Italian and Greek data, we would also assign Belgium, Luxembourg and Ireland to this category.

#### (ii) Influences on women's participation

Overall, and in distinct contrast to the men's data, we see (table 2.1) a quite substantial increase in labour force participation of women over the period from the 1960s to the later 1980s. Women are plainly much more committed to the workforce now than they were three decades ago. Part of this growth in participation is undoubtedly related to demographic changes, and particularly to a general reduction in family size across Europe. The women's participation rate changes should of course be superimposed on the institutionally-driven changes we have already identified for men. Education and retirement developments also mean that, ceteris paribus, women would enter the workforce later and leave it earlier. Therefore, the aggregate 15-60 participation rate estimate given in table 2.1 probably underestimates the change in the extent of women's participation; a better indicator, for the purpose of summarizing women's increased participation in the workforce, may be the mid-period participation rate (e.g. ages 25-60), which excludes the effect of later entry to the workforce.

Causal inferences are always difficult, and are particularly so in this area; but, *a priori*, we might expect there to be three particularly important influences on women's participation: the overall wealth of the society; the level of provision of child-care facilities (to counteract the differential responsibility of women in this area, which will be discussed in the next section); and direct state regulatory encouragement of women's participation.

The connection between Gross National Product and women's participation is complex. In one sense, the causal stream may flow from women's participation to GNP; women's labour is, after all, labour, and at any given level of economic development, the more labour employed, the greater the GNP. However, particularly in view of the fact that (as we shall see in the next section) unpaid work has historically fallen disproportionately to women, so that their participation in paid employment imposes what has been called a "dual burden" on their time, we might as well expect a negative as a positive relationship between GNP and women's participation; (indeed, the east European data briefly touched upon in the next section does suggest a negative relationship between wealth and women's work time, as these societies use their increasing productive potential to reduce the burden of paid work on women).

Of more relevance to western Europe, however, is the view of paid work as a benefit in itself. There is a general perception in developed economies that paid employment confers a certain sort of social status and, underlying this, a tacit understanding that systematically organized work outside the home may provide non-monetary benefits in the form of improved psychological and social adjustment. The opportunity to take a job may be perceived as one of the rewards that is to be gained as a result of societies' increasing affluence. Thus, irrespective of conventional economic arguments concerned with the direct financial rewards to the individual or to the economy, we might still expect richer economies to use a growing proportion of their increasing productive capacities in the form of provisions to enable women's participation in the labour force (in this case, variation in women's participation associated with national wealth would also be associated with levels of child-care provision). A quite distinct argument might see a link between the processes of economic "modernization" and movement towards sexual equality, again implying a positive association between GNP and women's participation.

Figure 2.4 plots each country's per capita GNP (expressed as a proportion of the US figure, and used as an indicator of economic development or modernization) against the women's participation rate (the GNP data is drawn from the data set distributed by the Review of Income and Wealth, described in Summers and Heston (1988)). In sum, there is clearly a positive relationship, with richer countries having in general higher rates of women's participation, and the poorest country (Turkey) having the lowest rate. Nevertheless, there is very substantial variation. Denmark and Luxembourg have about the same GNP, but the former has twice the participation rate of the latter. Portugal has approximately the same rate of women's participation as has the UK, but with less than half the GNP. Plainly, other factors are involved.

Section 3 of this paper demonstrates that women bear a much heavier responsibility for child care than do men. The provision of child-care facilities outside the home may thus be expected to be associated with women's participation. In figure 2.5 we use the proportion of children aged 0-5 in full-time child care as an indicator for the level of child-care facilities; and again we find a positive relationship with women's participation. Denmark (the only Nordic country for which we have this indicator, though we may presume similar levels of child care in the other Nordic countries) has the highest rate of women's participation and the highest level of nursery provision. At the lower end of the women's participation scale we find a much less tidy pattern; the relationship here is plainly rather weaker than in the case of GNP. (The data on childcare provisions are drawn from table 6.2 of Moss (1988.))

Direct provisions to encourage women's attachment to the labour force include guarantees that jobs will be held open for those who are temporarily absent on maternity leave, and regulations requiring employers to give paid parental leave. Most European countries provide some version of the former, but with varying levels of effectiveness. Months of paid parental leave (excluding leave immediately associated with the birth) are easier to quantify, and figure 2.6 takes this variable as the indicator of levels of direct provisions. Here again we find a positive relationship to the overall rate of women's participation. We might particularly notice that Portugal has a very generous allowance, which suggests that direct state encouragement may be particularly important in explaining its relatively high level of women's participation.



Figure 2.4 Women's labour force participation rates by level of GNP

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Figure 2.6 Women's labour force participation rates by length of parental leave allowance



Source: ILO Yearbook, various issues, plus additional material from Dale (1989) and Moss (1988).

The plots give only a very crude indication of the effects of the various factors. In particular, the various explanatory factors we have considered may be correlated with each other. We need to know what the independent effect of each is; for this purpose we may employ a very simple causal modelling technique, using part (or semipartial) correlation coefficients.

Table 2.2 sets out the results of an investigation of women's participation conducted along these lines. The R-Squared statistic straightforwardly estimates the proportion of variation in women's participation associated with (or more loosely "explained by") the independent variables; the Adjusted R-Squared statistic is a more refined estimation of the same, which takes account of the very small numbers of cases in our sample. The table gives the proportion of variation in the women's participation rate explained by each possible combination of the three independent variables (although the adjusted R-squared estimator is the correct statistic for this small sample, it cannot be used for the estimation of part correlations).

We see that, overall, the three independent variables together explain 83 per cent (77 per cent adjusted) of the variation in women's participation, whereas individually GNP explains 42 per cent (38 per cent), parental leave (presumably a proxy for more general policies encouraging participation) explains 41 per cent (35 per cent) and childcare provision explains 22 per cent (14 per cent). Clearly (since the three individual R-Squared statistics sum to more than 100 per cent and the total variance explained by the three independent variables together is considerably less than this) some of the variance is explained jointly by two or three of the independent variables. We can estimate the part of the variance that is solely attributable to each of the independents; this non-joint element of the overall correlation might be considered the "independent effect" of the variable.

As we see from table 2.2, the "national income" effect can be estimated as 33 per cent of the total variation in women's participation, parental leave 41 per cent and child-care provision 2 per cent. These estimates are somewhat sensitive to the particular way in which missing data are treated, but irrespective of the missing data treatment that is adopted, essentially the same result emerges: nine tenths of the variance associated with child care is also associated with national income.

This is not an entirely surprising result. It tells us that (since the quite large univariate association of child-care facilities with women's participation almost disappears once national income is accounted for) the relatively richer

#### Explaining the variance in the participation rate of European women

#### (Missing data treatment = pairwise)

1. The main a priori explanatory variables are childcare facilities, parental leave allowances and GNP. However differing levels of educational provision also contribute; to allow for this, the dependent variable in the following is participation rates for women aged 25-60, not 15-60.

2. Initial analysis of variance:

vrel	1985	GDP	as	per	cent	of	US	GDP
------	------	-----	----	-----	------	----	----	-----

pleave	months	of	parental	leave	available to	wife
--------	--------	----	----------	-------	--------------	------

ch05 proportion of children up to 5 years old in full-time day

Model	yrel pleave		ch05	R-squared	Adjusted	Significance level
					R-squared	
A	Х	Х	X	0.830	0.767	0.002
В	Х	Х		0.811	0.769	0.001
С	Х		Х	0.425	0.297	0.083
D		X	Х	0.500	0.389	0.044
Е			Х	0.221	0.144	0.124
F	Х			0.418	0.38	0.005
G		Х		0.405	0.346	0.026

pleave effect (A-C) = e2 .406

ch05 effect (A-B) = e3 .019

resid effect (1-e1-e2-e3) = e4 .076

Source: ILO Yearbook, various issues, plus additional material from Dale (1989) and Moss (1988).

countries are also the more likely to provide good childcare facilities. However, we might have expected childcare provisions to have a stronger independent effect. The result leaves us with a question: how do people in those countries with low levels of child care, but quite high levels of women's participation (e.g. the United Kingdom) look after children? At this point we must introduce the distinction between full-time and part-time work.

Part-time employment is used as a means of combining paid work with the traditional women's responsibility for child care. In fact, it is an element in two different strategies: (1) It is widely used as a transitional arrangement for re-entry to the workforce after a period devoted to child care; thus, we would expect to find some women's part-time work in all economies; and (2) in some economies, it forms part of a longer-term strategy, combining part-time work with ad hoc arrangements for care of children by other family members (as where the wife works an evening shift which starts after the husband returns from his employment) or part-time paid child care, perhaps from unqualified or unlicensed child-minders.

Figure 2.7 plots women's part-time work against all work. We see a strong linear relationship: the higher the overall women's participation rate, the higher the rate of part-time work. Of rather more use for our present concerns, however, is figure 2.8 which plots the part-time participation rate against the level of provision of child care. We can distinguish four groups of countries: a low part-time work, low child-care group (Luxembourg, Greece, Ireland) which has overall low levels of women's participation; a high part-time work, low child-care

category exemplified by the United Kingdom, with a medium level of participation; a low part-time work, high child-care category represented by France, again with a medium level of women's participation; and finally a high child-care, high part-time category (with Denmark representing the Nordic countries) having a high level of women's participation.

# 3. Relationship between women's employment and other activities

#### (i) Data and methods of analysis

For our investigation of employment, it was possible to use nominal-level data; we simply counted the number of people who claim themselves to be, or are claimed to be, employed. At any point in time, there are normally national standard definitions, and the ILO provides international guidelines for reporting employment. "The job" is a natural, homogeneous and important category of activity. People know what their "job" is, and would expect other people to understand what they mean when they use the word "job". In the great majority of cases it takes place at one specific spatial location, and normally has a well-specified position within the daily and weekly cycle. As we shall see, it occupies a significant proportion of many peoples' total time. There is one other such natural, homogeneous and important activity: sleep. All the other activities of daily life have quite different characteristics: they are heterogeneous (comprising a wide range of specific actions which have multiple subjective





Source: ILO Yearbook, various issues, plus additional material from Dale (1989) and Moss (1988).

meanings); the terms used to describe them are less natural (e.g. people use "housework" to describe very different things) and many qualitatively significant activities are quantitatively small and widely scattered through the year. How then can we measure patterns of activity outside employment?

One approach is the time-budget survey. We do not in general know how we allocate our time (any more than we know what we spend our money on). Just as the conventional economic technique for estimating personal expenditure is to persuade individuals to keep detailed sequential expenditure diaries, so the best developed approach to the study of time allocation is the time-budget Random samples of respondents keep diary method. diaries for a specified period (which can be of anything from one to eight days duration). Researchers then code the sequential accounts into a set of detailed time-use categories (normally between 100 and 200 distinct categories of event). The diary instruments typically ask the respondent to specify what she/he is doing, at each particular point through the survey period (the "primary" activity), whether there is any other ("secondary") activity or activities, who else is present, and where the activity is located. The time-budget survey thus provides a great deal of information about sequences of activity, how different activities are combined together, patterns of association between various categories of people, and the geographical distribution of activities. This report will, however, make use of just one sort of data: the estimates of the total time devoted to the various categories of primary activity. The primary activity is what the respondent claims primarily to be doing; there is at any instant just one primary activity; and at each instant there is always by definition a primary activity (even if it is just "doing nothing"). The sum of time devoted to primary activities in a day always comes to 24 hours (1,440 minutes). Although we recognize that there are arbitrary attributions involved both in respondents' accounts and the researchers' treatments of these accounts, (figure 2.7) nevertheless, the estimates of total times devoted to primary activities are obviously the best available basis for estimating the distribution of activity patterns across a society.

Time-budget data is not well established at the international level, but there is a large number of national studies. It has been estimated that more than 60 national representative sample time-budget surveys have been carried out in more than thirty countries. In a growing number of countries (e.g. FRG, Finland, the Netherlands) time-budget surveys are undertaken by the Central Statistical Office or similar government departments. Though there are no official international data standards, there has been one multinational collaborative time-budget data collection (sponsored by UNESCO in 1965/6) and the protocols developed for the UNESCO project have provided de facto guidelines for many subsequent researchers. Since there is a wide range of possible applications of time budgets, each of which will have somewhat different data requirements, there cannot be a universally acceptable protocol for the design of timebudget samples and survey instruments. However, a new set of outline proposals to guide researchers is currently being developed by the International Association for Time Use Research (an organization loosely associated with the International Sociological Association).

In the absence of a standard official international data source, international comparison must rely on ad hoc assembly of material from diverse national sources. The European Foundation for the Improvement of Living and Working Conditions has taken the lead in supporting the development of an archive for national material. Timebudget surveys donated to the archive are translated into English, and variables are re-coded and aggregated, so as to provide a retrospective comparative data source. So far, material from 16 countries is maintained in the archive, and more is added each year. Worry about the detailed comparability of these data is of the same order as that we have expressed about the employment material from the ILO Yearbooks. However, since the comparisons which follow are made from the raw survey data rather than from tables drawn up in each individual country, it is possible to impose a limited degree of control both on the scope of sub-populations described and on the definitions of This report, in line with its longitudinal categories. orientation, concentrates on the subset of the Archive with more than one survey per country, allowing cross-national comparisons of trends. For reference purposes, US and Canada are included with the evidence from European countries.

The Archive material is used here to produce comprehensive accounts of how peoples' days are divided between different activities and, in particular, to demonstrate the consequences of different employment status for the full range of women's activities. The following tables employ Multiple Classification Analysis (MCA). This very straightforward technique calculates overall (or "grand") mean values for particular dependent variables, and "effect parameters", which are the differences between the overall mean for the sample as a whole, and the means for particular subgroups. Where there is more than one independent variable, the effect of each is calculated (having controlled for the influence of each of the other independent variables) in the manner of standard multiple regression. (Indeed the effect parameters may be derived from dummy variable regressions.) Consider for example the estimates of Danish women's paid work in table 2.3. They have on average 140 minutes of paid work. Danish women with young children have (controlling for the effects of the other independent variables) 12 minutes less paid work than the average, and those with no registered employment have 105 minutes less than the average. We estimate, therefore, (controlling for the remaining independent variables), that non-employed Danish women with small children have on average 23 (140-12-105) minutes of paid work.3

<sup>&</sup>lt;sup>3</sup> This small residual amount could in principle be a statistical artifact resulting from interaction between the independent variables not controlled for in the analysis; but in this case it reflects mainly unregistered paid work undertaken by this group. Young Danish women (i.e. those aged 20-40) with full-time jobs are estimated to do 319 (140+40+139) minutes of paid work.

## Men's and women's time use in seven countries

# Minutes per average day, adults aged 20-60

### Effect parameters controlled for other independent variables

# PANEL A Paid work (including travel to work)

				Men				Women						
	С	DK	Н	NL	Ν	UK	US	C	DK	Н	NL	Ň	UK	US
Mean	360	376	460	311	378	368	355	188	140	325	80	157	158	205
Effects of:														
Family:														
Young, no children	19	. 10	1	1	29	4	6	40	32	-3	27	76	31	21
Children <5 years	-2	20	5	-5	-4	10	-3	-24	-12	-49	-15	-32	-17	-3
Children 5+ years	-2	4	10	8	-9	-3	1	-5	-	6	10	-8	-9	3
Older, no children	-33	-30	-15	-23	-11	-9	-6	-19	-2	17	-16	6	-1	8
Beta	0.06	0.08	0.04	0.04	0.06	0.04	0.01	0.10	0.07	0.09	0.15	0.15	0.10	0.07
Employment:								8						
Full-time	20	30	7	73	14	52	13	139	196	60	194	145	197	113
Part-time	3	-70	-63	-94	-77	-184	-52	48	49	-114	86	11	16	33
Non-employed	144	-134	-100	-238	-244	-261	-54	-137	-105	-182	-61	-118	-141	-113
Unemployed	-325	-352	•••	-255		-300	-186	-178	-120	-403	-35		-139	-60
Beta	0.26	0.30	0.10	0.73	0.20	0.69	0.13	0.55	0.61	0.41	0.75	0.51	0.87	0.40
Period:														
1960s		16	59			31	88		-8	18			5	-16
early 1970s	8	-13		2	16	-2	45	-8	8		-	-	-	-15
1978-82	-7		-28	3	-20			8		-10	4	-		
after 1982				-3		-27	-121				-3	.:	-4	29
Beta	0.03	0.05	0.16	0.02	0.06	0.14	0.31	0.03	0.04	0.05	0.02		0.02	0.08
Education:														
low	7	2			-1	-10	4	-4	-3	**	-	-1	-3	5
intermediate	· 6	-21		1	25	2	-6	-3	58		7	3	4	-6
higher	-9	17		-	-16	9	3	5	-21	••	2	1	1	4
Beta	0.03	0.03		0.00	0.03	0.05	0.02	0.02	0.06		0.01	0.01	0.02	0.02
Day:														
Sunday	-228	-297	-310		-303		-231	-121	-115	-246		-120		-97
Monday	32	95	59		108		69	49	37	55		33		32
Tuesday	60	100	86		132		44	22	41	53		48	•••	25
Wednesday	122	87	62		106		72	53	21	59		50	••	28
Thursday	118	94	73		89		44	65	21	57		30		17
Friday	67	69	62		60		60	20	46	61		24		49
Saturday	-178	-172	-59		-224	•••	-53	-118	-79	-60		-77		-65
Beta	0.49	0.60	0.51		0.58	••	0.36	0.29	0.29	0.42		0.28	••	0.19
R-Squared	0.32	0.45	0.31	0.54	0.39	0.56	0.25	0.44	0.50	0.35	0.64	0.41	0.84	0.24
R	0.56	0.67	0.55	0.73	0.62	0.75	0.50	0.66	0.71	0.59	0.80	0.64	0.92	0.49

Countries: C: Canada, D: Denmark, H: Hungary, NL: Netherlands, N: Norway, UK: United Kingdom, US: United States. Source: Unpublished Time Budget data (described in Gershuny and Jones (1990)).

#### Men's and women's time use in seven countries

## Minutes per average day, adults aged 20 - 60

## Effect parameters controlled for other independent variables

PANEL B

Unpaid work (cooking, cleaning, child care, shopping, other household jobs)

				Men							Women			
	С	DK	Н	NL	N	UK	US	С	DK	Н	NL	N	UK	US
Mean	136	47	106	125	126	105	156	300	265	308	332	339	298	299
Family:					•									
Young, no children	-41	-11	-35	-17	-40	-27	-7	-84	-64	-78	-51	-147	-75	-46
Children <5 years	34	5	33	34	27	20	9	88	44	64	57	71	66	64
Children 5+ years	11	6	5	-8	8	7	-3	27	19	23	5	20	20	7
Older, no children	2	-	-5	8	-5	-	5	-44	-26	-19	-38	-39	-16	-30
Beta	0.21	0.07	0.17	0.20	0.17	0.19	0.04	0.33	0.22	0.22	0.34	0.36	0.34	0.20
Employment:														
Full-Time	-5	-6	-2	-22	-1	-14	-3	-76	-104	-45	-116	-73	-107	-59
Part-Time	6	22	1	6	-	43	-	-20	-25	45	-49	-11	-3	-13
Non-Employed	37	17	37	77	24	75	23	78	56	143	37	63	76	58
Unemployed	72	84		99		74	22	47	20	281	-41		31	24
Beta	0.12	0.19	0.07	0.39		0.34	0.05	0.37	0.39	0.41	0.46	0.31	0.55	0.27
Period:														
1960s		-19	21			-11	-44		14	63			22	52
early 1070s	-13	16		-24	-2	-14	-33	12	-15		-7	21	-20	9
1978-82	11		-10	-18	3			-13		-36	-5	-26		
after 1982				19		25	70				7		-	-57
Beta	0.09	0.19	0.11	0.19	0.02	0.20	0.32	0.06	0.08	0.25	0.05	0.12	0.11	0.22
Education:														
low	-13	-1		-2	-2	9	-8	-6	3		-	3	-4	1
intermediate	-3	8		18	-8	-2	4	-1	-62		6	-12	-3	-1
higher	10	12		8	22	-7	1	5	21		-8	-11	6	1
Beta	0.07	0.07		0.05	0.06	0.08	0.03	0.02	0.08		0.02	0.03	0.03	2
Dav:														
Sunday	18	1	46		-1		31	-46	-82	33		-91		-28
Monday	-10	-5	-12		-20		-22	-5	13	-4		21		9
Tuesda	-12	-10	-19		-17		-1		21	-11		18		7
Wednesday	-27	2	-9		-17		-17	-6	16	-23		12		6
Thursday	-22	-	-15		-10		-13	-7	18	-10		21		-2
Friday	-5	-1	-12		-11		-3	23	35	-28		15		1
Saturday	57	33	24		77		25	31	7	46		-8		8
Beta	0.19	0.11	0.18		0.23		0.12	0.11	0.23	0.13		0.19		0.06
R-Squared	0.09	0.10	0.08	0.19	0.08	0.24	0.13	0.35	0.33	0.38	0.41	0.37	0.59	0.22
R	0.30	0.32	0.27	0.44	0.29	0.49	0.36	0.59	0.57	0.61	0.64	0.61	0.77	0.47

Countries.. C.. Canada, D.. Denmark, H.. Hungary, NL.. Netherlands, N.. Norway, UK.. United Kingdom, US.. United States. *Source..* Unpublished time budget data (described in Gershuny and Jones (1990)).

## Men's and women's time use in seven countries

# Minutes per average day, adults aged 20 - 60

# Effect parameters controlled for other independent variables

PANEL C

Personal care (sleep, washing, non-social eating)

				Men				Women						
	С	DK	Н	NL	N	UK	US	С	DK	Н	NL	Ν	UK	US
Mean	612	599	623	607	614	636	598	634	633	620	642	635	658	619
Family:														
Young, no children	2	-26	-13	-3	-16	-1	-19	12	-10	23	5	10	14	7
Children <5 years.	-2	-3	-12	-3	-10	-	3	-21	-1	5	-10	-13	-7	-16
Children 5+ years.	-4	10	-5	3	8	2	7	-5	-2	-12	1	-	-2	-3
Older, no children	/	10	21	25	14	-2	11	19	0	1	14	10	-4	14
Beta	0.03	0.12	0.11	0.08	0.09	_0.02	0.09	0.11	0.04	0.09	0.10	0.08	0.12	0.08
Employment:														
Full-Time	-4	-6	-4	-17	-3	-15	-2	-10	-41	-13	-32	-27	-29	-13
Part-Time	-4	5	48	37	27	105	7	-4	-10	44	-14	4	3	2
Non-Employed	21	30	55	51	45	55	17	8	21	35	10	19	18	12
Unemployed	72	77		36		61	12	33	65	105	2		30	7
Beta	0.11	0.13	••	0.34		0.43	0.04	0.09	0.20	0.17	0.22	0.18	0.32	0.09
Period:														
1960s	-11	-27			4	-20			-14	-28			10	-8
early 1970s	13	9		-2	7	6	-12	10	15		-1	11	11	-2
1978-82	-11		13	7	-9			-10		16	7	-13		
after 1982				-3		-10	30				-5		-17	9
Beta	0.09	0.07	0.14	0.05	0.06	0.09	0.17	0.08	0.11	0.17	0.07	0.11	0.20	0.05
Education:														
low	-1	-		1	2	-	11	6	2		1	-	7	8
intermediate	-1 '	9		-14	-5	5	-3	3	-40		-6	3	3	1
higher	1	-32		-	-10	-2	-3	-7	31		-7	-	-10	-6
Beta	0.01	0.03		0.04	0.03	0.03	0.04	0.04	0.07		0.03	0.01	0.12	0.04
Dav:														
Sunday	83	119	108		107		54	77	95	91		77	×	40
Monday	1	-16	4		-24		-19	-9	-22	-6		-16		-8
Tuesday	3	-27	-28		-32		-6	-4	-27	-13		-13		-7
Wednesday	-32	-33	-18		-20		-16	-4	-11	-20		-16		-13
Thursday	-34	-18	-27		-19		11	-23	-11	-25		-14		-10
Friday	-31	-43	-24		-25		-29	-33	-38	-11		-15		-22
Saturday	12	-21	-5		25		5	14	-30	-12		6		24
Beta	0.28	0.42	0.32		0.35		0.20	0.25	0.35	0.29		0.28		0.15
R-Squared	0.09	0.21	0.15	0.13	0.14	0.19	0.07	0.09	0.18	0.14	0.06	0.13	0.11	0.04
R	0.31	0.46	0.39	0.36	0.38	0.44	0.27	0.30	0.43	0.38	0.24	0.36	0.33	0.20

Countries.. C.. Canada, D.. Denmark, H.. Hungary, NL.. Netherlands, N.. Norway, UK.. United Kingdom, US.. United States.

Source.. Unpublished Time Budget data (described in Gershuny and Jones (1990)).

### Men's and women's time use in seven countries

Minutes per average day, adults aged 20 - 60

## Effect parameters controlled for other independent variables

PANEL D

Out-of-home leisure (including entertainment of guests in own home)

				Men			×				Women			
	С	DK	Н	NL	Ν	UK	US	С	DK	Н	NL	Ν	UK	US
Mean	122	176	104	155	158	114	116	116	165	74	151	162	111	112
Family: Young no children	30	72	43	23	42	34	21	34	63	36	7	39	33	11
Children <5 years.	-15	-13	-15	-17	-	-16	-4	-18	-11	-6	-6	-3	-13	3
Children 5+ years.	-16	-29	-6	-13	-14	-8	-1	-15	-23	-8	-2	-11	-10	-4
Older no children	1	-24	-10	-33	-21	-11	-23	2	×	-5	1	3	-5	-7
Beta	0.13	0.19	0.17	0.22	0.13	0.23	0.09	0.15	0.13	0.15	0.07	0.10	0.22	0.05
Employment:														
Full-Time	-4	-9	-	-11	-2	-7	-4	-15	-8	1	-6	-17	-15	-9
Part-Time	-11	28	-8	16	6	26	56	-15	2	1	-2	-	-5	-11
Non-Employed	37	37	-1	34	28	37	-5	20	4	-4	1	13	12	10
Unemployed	65	103		49		34	67	-10	-46	-10	53		21	7
Beta	0.09	0.11	0.01	0.22	0.04	0.18	0.10	0.12	0.04	0.02	0.08		0.16	0.07
Period:														
1960s		-17	-28			-26	12		-8	-28			-29	11
early 1970s	1	14		11	-4	19	7	-	9		3	-1	15	7
1978-82	-1		13	-4	5			-		16	-7	1		
after 1982				-3		4	-17				4		9	-16
Beta	0.01	0.08	0.16	0.06	0.02	0.21	0.08	-	0.04	0.21	0.07	0.01	0.24	0.09
Education:														
low	-2	-		8	Ξ.	9	-13	-1	-1		-1	-4	5	-17
intermediate	1	-2		-1	-5	4	6	-3	24		19	14	-1	6
higher	-	4		6	2	-11	2	3	-40		14	17	-5	4
Beta	0.01	0.02		0.02	0.01	0.11	0.05	0.02	0.03		0.06	0.05	0.06	0.07
Day:														
Sunday	56	112	75		151		83	76	80	50		112		67
Monday	-3	-63	-11		-52		-33	-20	-27	-9		-41		-32
Tuesday	-43	-37	-20		-59		-23	-29	-24	-7		-42		-20
Wednesday	-46	-27	-20		-43		-23	-26	-23	-5		-25		-16
Thursday	-38	-45	-17		-41		-21	-25	-38	-13		-29		-12
Friday	-5	-22	-7		-13		-13	-8	-21	-15		-18		-13
Saturday	84	127	6		72		29	51	96	1		56		30
Beta		0.33	0.25		0.41		0.25	0.27	0.23	0.20	ст. 	0.33		-
R-Squared	0.12	0.17	0.12	0.11	0.19	0.15	0.09	0.10	0.08	0.12	0.02	0.13	-	-
R	0.34	0.42	0.35	0.33	0.43	0.39	0.29	0.31	0.28	0.35	0.14	0.36	-	-

Countries.. C., Canada, D., Denmark, H., Hungary, NL., Netherlands, N., Norway, UK., United Kingdom, US., United States.

Source.. Unpublished Time budget data (described in Gershuny and Jones (1990)).

#### Men's and women's time use in seven countries

## Minutes per average day, adults aged 20-60

## Effect parameters controlled for other independent variables

PANEL E

All leisure at home (but excluding entertainment of non-household members)

		Men							Women					
	С	DK	Н	NL	Ν	UK	US	C	DK	Н	NL	Ν	UK	US
Mean	210	242	147	242	164	216	215	202	238	114	234	148	214	205
Family:	10	15	3	3	-14	10		2	22	23	11	21	2	7
Children <5 years	-10	-+5	-11	-9	-14	-14	-5	-24	-22	-14	-26	-24	-29	-17
Children 5+ years	10	9	-3	10	7	1	-4	-2	5	-9	6	-1	1	-3
Older, no children	23	38	9	23	23	21	13	41	22	6	39	20	26	15
Beta	0.09	0.16	0.06	0.09	0.11	0.13	0.04	0.14	0.11	0.12	0.22	0.15	0.22	0.07
Employment:						~								
Full-Time	-7	-9	-1	-24	-9	-16	-4	-39	-43	-4	-39	-28	-45	-33
Part-Time	7	15	22	34	44	9	-11	-9	-16	23	-22	-3	-12	-12
Non-Employed	49	49	10	77	147	94	18	31	23	8	13	23	34	33
Unemployed	116	88		71		130	85	109	82	26	22		57	22
Beta	0.16	0.12	0.03	0.39		0.39	0.10	0.27	0.18	0.06	0.24		0.40	0.20
Period:														
1960s		31	-25			2	-35		15	-25		••	-7	-40
early 1970s	-9	-26		13	-17	-9	-7	-15	-17		5	-31	-6	2
1978-82	8		12	12	22			15		14	2	38		
atter 1982				-11		8	39				-3		11	35
Beta	0.06	0.15	0.15	0.11	0.15	0.07	0.19	0.10	0.10	0.18	0.04	0.32	0.10	0.20
Education:														
low	9	-1		1	1	-8	7	5	-1		1	2	-5	4
intermediate	-3	7		-3	-7	-8	-1	4	20		-26	-7	-3	-
higher	-2	-1		-15	1	11	-3	-7	9		-1	-6	7	-3
Beta	0.03	0.02		0.04	0.02	0.10	0.02	0.04	0.03		0.06	0.03	0.06	0.02
Day:					17									
Sunday	71	66	82		47		63	15	23	71		22		18
Monday	-20	-11	-40		-12		5	-16	-1	-36		2		-1
Tuesday	-/	-20	-18		-24		-15	11	-11	-22		-10		-6
Thursday	-17	-28	-10		-25		-10	-18	-4	-13		-21		-5
Friday	-24	-32	-15		-19		-21	-10	22	-10	•••	-0		15
Saturday	26	33	33		51		-6	22	-22	24		-0		-15
Beta	0.21	0.19	0.32		0.24		0.17	0.10	0.08	0.31		0.14		0.07
R-Sauared	0.08	0.00	0 13	0.10	0.16	0.10	0.08	0.11	0.07	0.16	0.10	0.14	0.10	0.00
R	0.29	0.30	0.37	0.43	0.39	0.44	0.28	0.32	0.07	0.39	0.10	0.14	0.19	0.08
	0.27	0.50	0.01	0.15	0.57	0.11	0.20	0.52	0.20	0.57	0.52	0.57	0.45	0.27

Countries.. C.. Canada, D.. Denmark, H.. Hungary, NL.. Netherlands, N.. Norway, UK.. United Kingdom, US.. United States.

Source.. Unpublished Time Budget data (described in Gershuny and Jones (1990)).

## Mens' and womens' time use in seven countries

## Minutes per average day, adults aged 20-60

# Effect parameters controlled for other independent variables

PANEL F Routine unpaidwork (cooking and cleaning only)

		Men							Women					
	С	DK	Н	NL	Ν	UK	US	С	DK	Н	NL	Ν	UK	US
Mean Effects of: Family:	34	18	34	28	34	26	55	168	218	184	226	217	194	166
Young, no children Child <5 years Child 5+ years Older, no children	-5 1 - 9	-4 1 4 -1	-10 -4 6 2	-2 2 -6 5	-9 - 1 9	-5 1 - 3	-1 -3 5	-46 13 25 -1	-55 40 16 -24	-50 7 18 -1	-43 3 24 8	-88 - 28 -7	-53 6 24 8	-34 18 11 -4
Beta	0.07	0.05	0.08	0.11	0.08	0.07	0.03	0.21	0.20	0.16	0.27	0.16	0.26	0.13
Employment: Full-Time Part-Time Non-Employed Unemployed	-3 17 27 31	-2 9 12 13	-1 3 12 	-9 2 31 27	-1 -4 18 	-6 10 36 33	-1 -9 11 -1	-53 -13 53 48	-92 -18 49 -12	-26 29 83 -55	-61 -27 21 -11	-51 -2 40 	-73 6 49 -1	-37 -14 39
Beta	0.15	0.11	0.04	0.08	0.04	0.31	0.04	0.37	0.36	0.33	0.28	0.33	0.51	0.25
Period: 1960s Early 1970s 1978-82 1982+	-8 7 	-2 1  	-12  6 	-7 -5 7	-5 7 	-4 -9  13	-33 -30  56	20 -22 	39 -43  	12  .7 	 10 1 -6	21 -26 	35 -8  -20	37 6  -40
Deta	0.12	0.05	0.12	0.12	0.12	0.21	0.44	0.15	0.25	0.00	0.17	0.00	0.22	0.22
Education: low intermediate high	-5 4 -1	1 11	 	-1 5 4	-2 3	1 -1	-2 2 -1	9 -5 -2	3 -65 -9		2 -14 -22	5 -14 -31	-8 - 8	8 1 -7
Beta	0.05	0.03		0.02	u	0.01	0.02	0.04	0.08		0.08		0.07	0.04
Day: Sunday Monday Tuesday Wednesday Thursday Friday Saturday	6 1 2 -7 -9 -1 8	5 -2 -1 1 -4 2	15 -5 -8 -5 -4 -2 11		12 -5 -2 -6 -2 -1 5		15 -6 3 -5 -5 -1 -3	-7 4 6 3 -6 -3 3	-55 7 19 17 13 13 3	57 -7 -14 -25 -18 -27 39		-56 13 11 13 14 10 -12		-12 5 11 1 -1 -5
Beta	0.09	0.06	0.12	0.11	0.12		0.07	0.04	0.16	0.22		0.22		0.05
R-Squared R	0.05 0.22	0.02 0.13	0.13 0.36	0.04 0.20	0.03 0.18	0.18 0.42	0.20 0.45	0.30 0.55	0.35 0.59	0.33 0.57	0.29 0.54	0.22 0.46	0.50 0.71	0.18 0.43

Countries.. C.. Canada, D.. Denmark, H.. Hungary, NL.. Netherlands, N.. Norway, UK.. United Kingdom, US.. United States.

Source.. Unpublished Time Budget data (described in Gershuny and Jones (1990)).

Time Use of Women in Europe and North America

The Dutch and British surveys use diaries which cover a seven-day period, while the other materials cover single days; we know that activities vary considerably over a weekly cycle, so the estimates for the one-day surveys are made controlling for the diary day.<sup>4</sup>

Table 2.3 gives MCA estimates for five broad activity categories: the paid work category includes time spent in travel to work and paid work at home; unpaid work includes routine domestic tasks such as cleaning and cooking, as well as shopping, child care, and non-routine household jobs and gardening; personal care includes sleep and personal toilet and meals with other household members; away-from-home/sociable leisure includes entertainment of non-household members at home, in addition to the obvious categories; and at-home leisure is the residual category. These five categories are defined so that, together, they include all the categories of time use. One particular advantage of the MCA presentation is that it preserves the fundamental time-budget constraint. The five grand means for each country add up to a total of exactly 1,440 minutes (i.e. precisely one day), and each set of five "effects" belonging to each of the demographic categories total exactly 0 minutes (since, for example, if full-time employed women in Denmark spend more time in paid work than the average women do, they must spend correspondingly less time in other activities).

The historical period in which the particular survey was carried out is included among the independent variables. The effect parameters here may be interpreted as estimates of historical change in time use, controlling for the consequences of shifts in the distribution of relevant demographic and socio-economic variables within the particular societies.

### (ii) Effects of employment status on time use

The paid work estimates show substantial cross-country variations in the women's means, reflecting the differences in the national participation rates seen in the previous section. As we might expect, the variation in the men's mean is rather smaller, as a result of the more regular level of men's participation across the countries.

The family status effects on women's paid work appear to be quite small in absolute terms. This is of course explained by associating women's family status with their employment status, which is being controlled for in these tables; but we clearly see, even after controlling for employment status, much larger family status effects for women than for men. For any given employment status, women work overall much less than men. This difference may, in part, be associated with gender differences in the occupational and industrial location detailed of employment, which are not controlled for here; but women may concentrate in particular jobs precisely because of opportunities for shorter paid working times. Undoubtedly, the evidence suggests that extra family commitments reduce women's paid working time to a much greater degree than can be explained by their lower participation in full-time employment and higher part-time and non-employment rates.

The period of the survey has irregular effects. Once controlled for all other effects, women are evenly split, country-by-country between small increases and decreases of paid work over historical time. The extreme cases are Hungary, with a substantial reduction (this may be a specifically east European effect, which will be considered in a moment), and the US, with a large increase. Though there has been a large absolute increase in womens' paid work time, this is a result of their increasing participation rate, which (since this is controlled for) is not reflected in the effect parameters. The men's changes are all reductions (over and above changes in the participation rate). The US results are suspect: the 1985 survey used here employed, (uniquely among the surveys in the archive), a telephone interviewing technique which may be systematically biased towards men with shorter working hours.5

Moving aside from the MCA tables for a moment, consider figure 2.9. This is based on the whole Archive and gives population (aged 20-60 years) estimates of changes in the relation between paid work time and GNP, not controlling for the effects of socio-demographic shifts in the populations. Both cross-sectionally (i.e. between countries) and longitudinally (i.e. within particular countries over time) men show that lower paid work time is associated with higher levels of GNP. Women show two the east European countries (where different trends: women's participation rates have always been high) show a reduction, whereas women in the west show a rising trend of paid work time which reflects their increasing labour force participation. The overall conclusion is therefore that while women increase their involvement in paid work, this trend is imposed on what may be interpreted as a generally negative relationship between paid working hours and economic development.

The MCA estimates (figure 2.6) for unpaid domestic work exhibit a much more regular pattern of mean: there is a striking similarity in the totals for women in the various countries (Denmark is an outlier here, perhaps because the table relies on early surveys, from 1961 and 1974; Danish data from 1987 has been promised to the Archive but at the time of writing had not yet been added to it). The men's total is considerably below women's (with Denmark again an outlier).

Women's employment status has a very substantial effect on unpaid work; the Beta coefficients indicate that one third to one half of all residual variance in domestic work is explained by this variable. There is a

<sup>&</sup>lt;sup>4</sup> The Beta coefficients estimate the extent to which each independent variable explains the variance in the dependent variable once the variance associated with the other independent variables has been accounted for.

<sup>&</sup>lt;sup>5</sup> This has implications for the results that follow in this report. Future work on this material will employ other US data for 1985 which relies on more conventional techniques.



Figure 2.9a Time spent by women in paid work by level of GNP





Figure 2.9b Time spent by men in paid work by level of GNP



straightforward reciprocal effect: the less paid work, the more unpaid work and vice versa; but note that (with the exception of Hungary) the reduction in women's unpaid work associated with participation in full-time paid employment is much smaller than their increase in paid work. Women in full-time employment have 1 to 2 hours less than the women's grand mean of unpaid work, but 2 to 3 hours more paid work. This is the basis of the widely observed "dual burden" effect: women who take on new paid work responsibilities do not reduce their unpaid work proportionately. Men also show the reciprocal effect of paid work on domestic work but on a much smaller absolute scale; the Betas are less substantial; and even controlling for family status, non-employed men have 17-77 minutes of unpaid work above the relatively low men's mean, while non-employed women do 37-143 minutes above the relatively high women's mean.

Women's family status has a similarly large effect on their total: even after controlling for employment status, women have around an hour or so of extra domestic work. Men show a similar direction of effect but, again, very much smaller in its scale.

Moreover, as previously argued, women's family and employment status are strongly related. Women with small children are also likely to be non-employed or part-time employed. So the two effects combine: women who are not employed full-time and who have children do a great deal of housework. By contrast, children have much less of an effect on men's domestic work, and, as we have seen, men are not very likely to change their employment status (or their hours of paid work) as a result of having children; which means that on average fathers do very much less unpaid work than mothers.

It is generally suspected that women of higher status do less housework than those of lower status; but in the reports of various national studies, it is often difficult to distinguish this effect from that of other correlates of social status. In particular, women of higher status are more likely to have paid employment (and within employment to have full-time jobs), and to have smaller families. In the tables, educational level is used as a proxy for status; but the comparison of categories is perilously difficult in this The three-way split adopted here has different area. meanings for the different countries; in the UK, for example, the "higher" category includes all those who left full-time education aged 17 or above, whereas in the other countries it assumes at least some university or equivalentlevel education. No regular relationship between education and housework time emerges from the multinational data.

The period effect is substantial and regular. Women show a regular reduction over the historical period. The US change may be overstated because of the telephone interviewing procedure used to collect part of the most recent data (less domestic work means that fewer women will be at home to receive phone calls); but, generally, in Europe we find around 30 minutes' reduction in unpaid domestic work for women over the period. Men show a regular increase, of about the same order (with similar reservations as in the case of the US). These results are confirmed by more detailed analyses for individual countries. A considerable body of evidence is now emerging to confirm the proposition that, even controlling for changes in employment status and family size, over time, men are doing more and women less unpaid work than previously.

Turning for a moment to the more general data set, figure 2.10 tends to lend support to the view that this phenomenon is associated with economic development. As always, the cause is unclear as this period has been characterized not only by economic development but also by the growth of the women's movement, influencing not just women's conduct but also that of men. But whatever the cause the change is clear and unequivocal.

The means for personal care are, as we would expect, very similar (more detailed data on sleep show even closer cross-national parallels). Women in general seem to have slightly more personal care time in total than do men (the more detailed data suggest that this relates to women's extra time devoted to personal toilet). Not surprisingly, for both sexes (but to a greater degree for women), there appears to be a negative relationship between personal care time and time in paid employment; and with slightly less cross-national regularity, parents show less personal care time than non-parents. There appears to be no cross-national regularity in the change in personal care time over the decades. People with low levels of education have slightly more personal care time than others in six of the seven countries studied and, again not surprisingly, personal care time seems to be quite strongly concentrated on Sundays.

Though there are substantial cross-national differences in the means of leisure at home, we see a striking intra-national similarity in the men's and women's means. With the exception of Hungary, where the "dual burden" of paid and unpaid work obviously presses exceptionally heavily on women, the average home leisure totals for both differ overall by only a few minutes; but the family and employment effects differ quite substantially by sex. The consequences of having children, and particularly small children, seem to be substantially more negative for women than for men (a "cumulation of burdens" effect). Correcting for the effects of employment, however, young women without children seem to have rather more at-home leisure than do men; and (again presumably the result of the "cumulation of burdens") women employed full-time seem to have rather less at-home leisure than do equivalently placed men.

The out-of-home leisure means show the same general similarity between the sexes, men here with a slight advantage over women. In this case, however, the effects of family and employment status seem to be less differentiated by gender. Parents of both sexes seem to have less out-of-home leisure than non-parents, once we control for the effects of other independent variables, and



Figure 2.10a Time spent by women in unpaid work by level of GNP





Figure 2.10b Time spent by men in unpaid work by level of GNP



the employed to have less than the non-employed. With the exception of both sexes in the US, and of Norwegian men, out-of-home leisure time seems to have been increasing regularly since the 1960s.

# 4. Women's employment and equality between the sexes

We have looked at the relationship between women's employment and their overall pattern of time use in relation to the impact of other personal characteristics and in comparison with men. A number of cross-national differences emerge; but overall we see a reasonably regular picture, which allows us to draw a number of generally applicable conclusions.

The most important of these conclusions concern the gender balance of work. Women in the middle of their adult lives are very much more likely to interrupt their paid employment to devote their time wholly or partly to the provision of unpaid services for their families. The difference in men's and women's activity patterns do not, however, result entirely from differences in their employment status. Once we control for women's position in the labour market, we still find a substantial effect of the presence of children in their households. The effect of family status for women is most marked in the sphere of work, where, even after the effects of employment status have been accounted for, the presence of children is associated with extra unpaid work and reduced paid work time. It is also seen in personal care and in leisure. Effects of family status are also found for men, but (with the exception of out-of-home leisure) these effects are very much diminished; and, on balance, the presence of children appears to lead to a small increase in men's paid work.

The implications of this are presumably that, despite the rapidly growing presence of women in paid employment, work responsibilities still remain to a degree segregated by gender. We may interpret these results as telling us that the primary male responsibility remains to the workforce, that of the female to the home. Though she has entered the workforce, the woman retains the domestic responsibilities. Somewhat less paid work is done by women than by men in an equivalent employment status; and women devote some of the time that men spend in leisure activities within the home to unpaid domestic labour.

We have seen that this situation is changing. Over historical time (and as their paid work time is reduced) men do more unpaid work in absolute terms and, even once we account for the effects of family and employment status, women do less unpaid work in absolute terms. (As we see in table 2.4, the increase in men's unpaid work is not solely in the traditionally male spheres of "odd-jobs" around the house, or shopping, but lies substantially within the core housework categories of cooking and cleaning). Nevertheless, even full-time employed women in the late 1980s spent much more of their time in unpaid household tasks than did equivalently placed men.

What, therefore, is the overall balance between men's and women's work? Figure 2.11 shows the substance of the "dual burden" argument. It sets the total work time (i.e. all paid plus unpaid) of full-time employed men of each family status, against women of various employment and family status. We see that in every country, full-time employed women with young children do more work - and in some countries very substantially more work - than full-time employed men with children. (Non-employed women seem from the data to do substantially less than men. This results from different reporting practices in the home and in the workplace: casual conversations and mealbreaks during paid working hours are often described in diaries under the blanket term "at work".) We should in fact make a somewhat different comparison; we should compare full-time employed women with husbands of full-time employed women. There is a potential fallacy of aggregation, since full-time employed husbands of employed wives may work longer than other husbands; we do not have sufficient cross-national material to control for this; but the limited evidence we have suggests that while husbands of full-time employed women do a little more work than others, this still does not explain away all of the "dual burden" phenomena. Women with jobs and children have two jobs, their husbands perhaps only one and a half.

Perhaps the numerical balance of minutes per day of total work may not be quite the most important issue. Though total work may now be approaching balance, it is still the case that full-time employed women's component of housework within that total remains perhaps twice as large as men's. This must have consequences for women's competitive position within the workforce. We know that, even controlling for differences in work experience and qualifications, women have relatively low pay and status in the workforce. We tend to assume that the residual difference between men and women, once we control for the relevant characteristics, must relate directly to discriminatory practices in the workplace; but women's extra responsibilities for housework mean that they must either increase their work total substantially above that of men's, or else do less paid work.

As we have seen, full-time employed women on average do less paid work than equivalent men (and the minority who do as much or more than the average of men's paid work tend to be under greater stress than equivalently placed men). This must in turn mean that at the margin, at any given level of qualification and experience, women may be perceived by potential employers or by promotions boards as performing slightly less well, or as being slightly less productive, than otherwise similar men. Women's lower pay and lesser promotion prospects in the workplace may therefore in part reflect the advantage that men gain from their wives' work in the home.

## Men's and women's time use in seven countries

## Minutes per average day adults aged 20-60

## Effect parameters controlled for other independent variables

### All work (paid plus domestic work)

		Men						Women						
	С	DK	Н	NL	N	UK	US	С	DK	Н	NL	N	UK	US
Mean Effects of Family	495	423	566	436	504	473	511	488	404	632	413	495	456	504
Young, no children	-21	- 1	-33	-16	-11	-23	-2	-44	-32	-81	-23	-71	-45	-24
Children <5 years	32	25	38	29	23	30	6	64	32	16	41	39	49	30
Children 5+ years	9	9	14	1	-1	4	-2	22	19	28	-6	12	11	11
Older, no children	-32	-30	-20	-15	-16	-9	-1	-63	-28	-2	-54	-33	-17	-22
Employment														
Full-Time	15	25	5	51	13	38	10	64	92	15	77	72	90	54
Part-Time	9	-48	-62	-87	-77	-141	-52	28	24	-69	37	-	13	20
Non-Employed	-107	-116	-64	-162	-220	-186	-30	-59	-48	-39	-24	-55	-65	-55
Unemployed	-253	-268	**	-156		-226	-165	-131	-100	-122	-76	**	-108	-36
Period.														
1960s		-3	80			20	44		6	81			26	36
early 1970s	4	3		-22	13	-16	12	5	-7		-7	21	-20	-7
1978-82	4		-38	-15	-17			-5		-46	-1	-26		
after 1982+		**	**	16		-2	-51			**	4		-3	-28
Education														
low	-6	1		-2	-3	-2	4	-10				3	-7	6
intermediate	3	-14		19	17		-1	-4	4	••	13	-9	1	-6
higher	1	29	**	9	7	2	4	10	1		-6	-10	7	5
Dev														
Sunday	-210	-296	-264		-304		-200	-167	-198	-212		-211		-125
Monday	22	89	46		88		47	44	50	51		55		41
Tuesday	48	90	67		115		43	22	62	42		66		32
Wednesday	96	89	54		89		55	47	38	37		62		34
Thursday	95	94	58		79		31	58	39	47		51		14
Friday	62	67	51		49		57	43	81	32		39		50
Saturday	-122	-139	-35		-148	*0	-28	-87	-72	-14		-85	**	-56

Countries. C. Canada, D. Denmark, H. Hungary, NL. Netherlands, N. Norway, UK. United Kingdom, US. United States.

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# Figure 2.11 Total workloads (Paid plus unpaid work; minutes per day)



Sources: Unpublished Time Budget Data (described in Gershuny and Jones (1990)).

## References

- A. Dale (1989), "Women's Participation in Paid Work", Department of Employment Gazette.
- J. Gershuny and S. Jones (1990), "The Multinational Longitudinal Time Budget Archive", European Foundation for the Improvement of Living and Working Conditions, Dublin.
- International Labour Organization, Geneva. *Yearbooks*, 1960-1988.
- M. Jahoda (1983), "The Social Psychology of Unemployment", Cambridge University Press.
- C. Marsh and J. Gershuny. (1991), "The Analysis of Work Histories in Standard Statistical Packages", *Sociological Review Monographs 38*.
- P. Moss (1988), "Childcare and Equality of Opportunity", Commission of the European Communities (V/746/88-EN).
- R. Summers and A. Heston (1988), "A New Set of International Comparisons of Real Product and Price Levels. Estimates for 130 Countries 1950-1985", *Review of Income and Wealth.*
- M. Young and P. Willmott (1974), "The Symmetrical Family", Routledge and Kegan Paul.

# Chapter 3

# WOMEN'S TIME USE OVER THE LIFE CYCLE

by Susan Lingsom

## 1. Introduction

This chapter describes how women in different age groups and different stages of the family cycle spend their time; it compares women's and men's time use and discusses how the allocation of time changes over the life cycle in selected ECE countries.

The primary focus of this study is on cross-sectional age and family cycle differences in the time women spend in paid and domestic work and their resulting total workloads. Time use averages are calculated for all women and for employed women separately and special attention is given to activity patterns among older women.

However, cross-sectional data cannot distinguish between the effects of age, cohort and historical period. Unless we can dismiss one or another type of change as being irrelevant in a specified context, all we can do with cross-sectional differences is describe them. We cannot generalize from the results to a model of behavioural changes over the life cycle nor can we use them to monitor social change through cohort succession.

In the last few decades there have been welldocumented changes in the economic role of women. In most countries more women are participating in the labour force, and they withdraw less frequently from the labour force after marriage or following the birth of their first child. Women are receiving more formal education, families are smaller and births of children are more tightly spaced. The timing and sequence of transitions in work and family roles are changing. Clearly, we cannot dismiss changes between cohorts as irrelevant for the study of women's time use today.

Neither can we dismiss changes over the life cycle as being irrelevant for the study of women's behaviour. In all countries, age is a major dimension of social organization by which roles and responsibilities are allocated and behaviour is interpreted. As individuals pass through social institutions that are organized by age, the patterns of their daily lives change. It may be said that women's lives are more complex than men's because women's lives run on multiple timetables. The major age-related transitions affecting men's time use are assumed to come in early adulthood, as they enter the labour market and in old age as they retire from it. Women's time use patterns have traditionally been shaped not only by the lower and upper age boundaries of the labour market but, more importantly, by the numerous age-related transitions in family roles throughout their adult years.

As we cannot assume that either life course changes or changes between cohorts are irrelevant for women's time use, the conclusions we can draw from cross-sectional analyses are limited. Descriptions of how different groups *currently* use their time may of course be important in many policy contexts. Better labour market policies can be designed if we take account of the differences in domestic obligations women have outside work. Better family policies can be designed if we take account of differences in women's paid work.

Cross-sectional differences are also useful as a starting point for generating hypotheses about changes in behaviour over the life cycle. They are often the best or only source of information we have on age-related behaviour. A full-scale testing of hypotheses generated from the cross-sectional analyses exceeds the scope of this report and of currently available data.

A limited testing of hypotheses related to changes in time use over the life cycle will be performed by comparing the results of longitudinal analyses of women's paid and domestic work with the results predicted on the basis of current cross-sectional age group differences. Brief mention will also be made in the closing remarks of the possibilities for further testing.

The analysis is based on data from the Multinational Time Budget Archive, described in chapter III. Largescale time use surveys where the respondents have kept diaries of their activities on a randomly selected day or week are presented for seven countries: Denmark, Norway, United Kingdom, and the Netherlands from western Europe; Hungary from eastern Europe and, from North America, the US and Canada. The results are presented in the above order. The studies were conducted in different years but all represent the most recent and/or the most comparable national data available to this researcher at the time this chapter was written. There is a reasonably high degree of cross-national comparability in the surveys with regard to sample design, coding schemes etc. However, it should be noted that the Danish survey deviates in a number of minor ways from the procedures used in the other countries, and therefore special caution is advised in cross-national comparisons involving Denmark.

#### 2. Age group differences in time use

#### (i) Women's paid work

Time spent on paid work including overtime, second jobs and travelling to and from work is the first type of activity discussed. We will begin with the average time spent per day for all women, whether employed or not. Subsequently, we will discuss variations in employed women's paid work. Age-group differences in employment rates are known to be substantial and we will therefore expect that the average time spent on paid work by all women will vary with age. Age differences in employed women's paid work time are less well known.

It may be noted that the average paid work time for non-employed women is not zero. In all countries some paid work is reported by women classified as being nonemployed. This does not necessarily indicate an error in the classification of activities or in the classification of respondents by employment status. The performance of occasional odd jobs by persons normally outside the labour market may be an important structural aspect of modern economies. We will not pursue this point but will include all paid work regardless of the respondent's employment status, in calculations of average work times for all women.

Table 3.1 shows that women's paid work time varies sharply by age in all countries, particularly, but not exclusively, in the lower and upper age ranges.

Two distinct patterns of age variation are observed. On the one hand, we have countries where paid work is highest for young adult women: Denmark, the Netherlands and the UK exhibit this pattern. In the UK, for example, in 1983 women of 18-24 years of age spent approximately 70 per cent more time on paid work than women 25-54 years of age (3.9 as opposed to 2.2-2.4 hours on an average day of the week). In the Netherlands successively lower amounts of time are spent on paid work time in each of the succeeding age groups.

On the other hand, in Norway, Hungary, US and Canada, it is not the youngest women, but rather the middle-aged women, who currently perform the most paid work. Work time peaks latest in Norway and the US where most paid work is performed by women 45-54 years of age.

#### TABLE 3.1

#### Average time spent on paid work by all women and by employed women in different age groups (Hours per day)

Age group (	18-24	25-34	35-44	45-54	55-64	65-74	
		All	vomen				
Denmark	1975	3.6	2.8	2.4	2.3	1.6	0.3
Norway	1980	2.6	2.4	3.1	3.3	2.3	0.7
UK	1983	3.9	2.3	2.4	2.2	1.4	-
Netherlands	1985	2.5	1.6	1.3	1.0	0.6	-
Hungary	1977	3.7	4.2	5.0	4.5	2.6	1.8
US	1975	2.8	2.7	3.0	3.2	2.3	0.5
Canada	1981	2.8	3.3	3.3	2.9	1.6	0.2
		Employ	ed wom	en			
Denmark	1975	5.4	4.4	4.1	4.1	4.2	a
Norway	1980	4.7	3.8	3.8	4.3	4.0	2.6
UK	1983	5.8	4.8	4.3	4.7	4.1	a
Netherlands	1985	5.1	3.7	3.0	2.9	3.6	a
Hungary	1977	5.4	5.5	5.9	5.8	5.9	4.6
US	1975	5.2	5.3	5.7	6.0	5.9	а
Canada	1981	4.7	4.7	5.2	5.1	4.4	a

a: denotes a cell with fewer than 25 observations.

There is no single explanation for these cross-national differences. In the US the comparatively low amounts of paid work performed by young adult women may at least partly be accounted for by early family formation and childbearing, as will be discussed later. In Norway, on the other hand, the lower amounts of paid work among young adult women cannot be accounted for by family responsibilities at this stage in the life cycle, as family formation typically comes later, but rather by their participation in educational activities.

In most countries there is only minor variation in women's average paid work time in mature adulthood. Women of between 35 and 44 years of age generally spend approximately the same amount of time on paid work as women of 45-54 years of age. For women in Canada and the UK there is no significant difference in paid work for women aged 25-34, 35-44 and 45-54.

The average time spent on paid work is typically low among women from their mid-50s to retirement age. There are considerable cross-national differences in women's paid work. Hungarian women spend more time on paid work than women in the other countries in all age groups except the youngest, where most work is reported in the UK. Women in the Netherlands spend the least time on paid work in all age groups. Cross-national differences in women's paid work time are most pronounced in middleage.

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Paid work time varies also by age for employed women, although, as would be expected, the variation is less than that for all women whether employed or not. In Denmark, the Netherlands, the UK and Norway young employed women spend substantially more time on paid work than their middle-aged and older counterparts. In the UK, for example, employed women 18-24 years of age spend one and a half hours more per day on paid work than employed women 35-44 years of age. In the US, Canada and Hungary, on the other hand, middle-aged employed women perform more paid work than young employed women. In the US employed women 45-54 years of age average six hours per day on paid work, 0.8 hours more than employed women 18-24 years of age.

The patterns observed for employed women are generally the same as the patterns for all women. This indicates that age variation in paid work time for the female population as a whole is not exclusively a function of differences in employment rates. Age variation in the work time of employed women is also an important factor in explaining the age variation for all women.

In Norway we see a shift in peak work time from 45-54 years of age for all women to 18-24 years of age for employed women. Employment rates are comparatively high for middle-aged women in Norway, but middle-aged employed women work part-time to a larger degree than other employed women. No age shift in peak work time was observed in the other countries.

#### (ii) Women's domestic work

The term "domestic work" is used to denote time spent on routine housework, cooking, shopping, child care, odd jobs around the home and travel time related to these activities. Table 3.2 shows that time spent in women's domestic work varies less sharply by age than does time spent in paid work. This is largely due to the fact that there is no exit from domestic responsibilities in old age comparable to retirement from the labour market. In all countries, the amount of time spent on domestic work is lowest among 18-24 year-olds. It increases sharply in all countries for the 25-34 years' age group. Age differences after this point vary between countries, with two major patterns.

The most common pattern shows a *single peak*, with domestic work first increasing rapidly and subsequently decreasing slowly. Denmark, the Netherlands, the UK and Canada exhibit this pattern. Domestic work time peaks later and the peak is more concentrated to a specific age group in Denmark and Canada than in the Netherlands and the UK, with women 35-44 years of age spending the most time on domestic work. In the Netherlands and the UK the peak is reached earlier, but high levels of domestic work are also found for women 35-44 years of age. A single peak in domestic work time early in adult years suggests a strong association between domestic work and women's involvement in child rearing.

## TABLE 3.2

#### Average time spent on domestic work by all women and by employed women in different age groups (Hours per day)

Age group (	18-24	25-34	35-44	45-54	55-64	65-74	
		All	vomen				
Denmark	1975	2.0	3.1	3.8	3.3	3.2	2.7
Norway	1980	3.1	5.6	5.2	4.7	5.1	5.3
UK	1983	2.8	5.6	5.7	4.9	4.9	5.0
Netherlands	1985	3.1	5.7	5.6	5.3	4.9	4.4
Hungary	1977	3.9	5.1	4.7	4.8	5.3	5.2
US	1975	4.0	5.7	5.4	5.0	4.8	4.9
Canada	1981	2.9	4.7	5.2	4.6	4.6	4.5
	1	Employe	ed wome	en			×
Denmark	1975	1.6	2.4	3.1	2.6	2.6	а
Norway	1980	2.5	4.7	4.8	4.3	4.4	4.6
UK	1983	2.1	3.6	4.5	3.9	4.1	а
Netherlands	1985	2.5	4.1	4.6	4.4	3.9	а
Hungary	1977	2.6	4.0	4.0	3.9	3.9	3.7
US	1975	3.1	4.2	3.9	3.6	3.2	а
Canada	1981	2.5	3.7	4.0	3.9	3.6	а

a: denotes a cell with fewer than 25 observations

Domestic work also has other components, however, as may be seen from countries exhibiting a *two-peaked* pattern of age variation. In Norway and Hungary domestic work has one peak among women 25-34 years of age, and a second peak in late middle age. In Hungary women 55-64 years of age spend approximately as much time on domestic work as women aged 25-34 years, and both groups spend an hour a day more on this activity than those who are 35-44 years of age. The second peak in domestic work may have a number of explanations related to both age changes and cohort differences, but there is at least one factor which can be ruled out. The second peak cannot be attributed to child rearing responsibilities.

Employed women in all age groups, in all countries, spend substantially less time on domestic work than do non-employed women. It may be noted that in some countries the peak in employed women's domestic work time comes at a later age than the average for all women. The results suggest that employed women in the Netherlands, the UK and Norway postpone motherhood. There is, however, no indication that employed women in other countries do the same.

Age differences in employed women's domestic work are generally small in mid-life and old age. The "second peak" in domestic work observed in Norway and Hungary for all women 55-64 years of age is not found for employed women, indicating that comparatively low rates of employment in this age group account for the comparatively large amount of time spent on domestic work.

### (iii) Women's total workloads

By total workload is meant the combined amount of time spent on paid and domestic work.

In all countries studied there is substantial age variation in women's total workloads (table 3.3). Total workloads are generally low among young adults, high among middle-aged women and low for elderly women, forming an inverted "U" curve. Time spent on education is typically concentrated in early adulthood. Education time is not included in our measure of total workloads but, if it had been, the workloads of young women would increase, although not to the extent of changing the basic pattern of age variation.

National differences exist in the timing of peak workloads. In most countries the highest total workloads are found for women of 35-44 years of age. In the US and the Netherlands peak workloads are observed earlier among 25-34 year-olds. Differences between the middleage groups are relatively small in the US, Norway, Denmark and Hungary.

In the Netherlands, the UK and Canada, however, there are marked differences among middle-aged women. Canada is the only country where both paid and domestic work peak simultaneously. The more usual pattern is for paid and domestic work to peak in different age groups, with peaks in total workloads coming later than peaks in domestic work or falling somewhere in between peaks in paid and domestic work.

Hungarian women have higher total workloads in all age groups than women in other countries. The lowest total workloads are found in Denmark.

#### TABLE 3.3

Total workloads for all women and for employed women in different age groups (Hours per day)

		,					
Age group (1	Years)	18-24	25-34	35-44	45-54	55-64	65-74
		All v	vomen				
Denmark	1975	5.5	5.9	6.2	5.7	4.8	3.0
Norway	1980	5.7	8.0	8.3	8.0	7.3	6.0
UK	1983	6.7	7.8	7.9	7.1	6.3	5.0
Netherlands	1985	5.6	7.3	6.9	6.3	5.6	4.4
Hungary	1977	7.6	9.3	9.7	9.3	7.9	7.0
US	1975	6.8	8.4	8.4	8.2	7.1	5.4
Canada	1981	5.8	8.0	8.4	7.4	6.2	4.7
		Empla	yed wor	nen			
Denmark	1975	6.9	6.9	7.2	6.7	6.8	а
Norway	1980	7.1	8.5	8.7	8.6	8.4	7.2
UK	1983	7.9	8.4	8.8	8.6	8.2	а
Netherlands	1985	7.5	7.8	7.6	7.3	7.5	а
Hungary	1977	8.0	9.4	9.9	9.7	9.7	8.3
US	1975	8.3	9.5	9.6	9.5	9.1	а
Canada	1981	7.3	8.3	9.2	8.9	8.0	а

a denotes a cell with fewer than 25 observations

Employed women have higher workloads than the average for all women. In Denmark and the Netherlands there is very little age variation in employed women's workloads. In other countries young employed women have substantially lighter total workloads than employed middle-aged and older women, primarily as a result of having fewer domestic obligations.

#### (iv) Women's leisure time

Leisure time is defined as the time spent on the following types of activities: listening to the radio, watching television, reading, attending spectator events, concerts, clubs, pubs etc., eating out, performing active sports, walking, hobbies, socializing with family and friends and simply relaxing as a *primary activity*. The total amount of time spent on these activities both as primary and secondary pursuits, will be much higher than the figures presented here for primary activities only (table 3.4). Conversations and radio-listening often occur in conjunction with other activities such as housework and meals.

Age variation in the time spent on leisure activities is to a large degree the inverse of total workloads, i.e. a "U"shaped curve rather than an inverted "U".

In Denmark, the Netherlands, the UK and Canada women of 65 -74 years of age have the most leisure of all age groups. In Norway and the US elderly women have about the same amount of leisure as the young adults. Hungary is the only country where leisure time is highest among the young.

#### TABLE 3.4

#### Average time spent on all leisure activities and on leisure outside the home by women in different age groups (Hours per day)

			21	70 mm			
Age group (Years)		18-24	25-34	35-44	45-54	55-64	65-74
				ξ			
		All leisi	ure activ	vities			
Denmark	1975	6.8	6.7	6.1	6.6	7.7	8.9
Norway	1980	6.8	5.7	5.4	5.6	6.1	6.7
UK	1983	5.8	5.4	5.3	6.1	6.4	7.5
Netherlands	1985	6.1	6.1	6.4	6.6	7.5	8.2
Hungary	1977	4.6	3.9	3.6	3.8	4.2	4.0
US	1975	6.6	5.2	5.2	5.5	5.9	6.7
Canada	1981	5.8	5.4	5.2	5.7	7.1	8.0
		Out-of-	home le	isure			
Denmark	1975	1.3	1.0	0.9	1.0	0.9	0.9
Norway	1980	2.0	1.2	1.3	1.0	1.2	1.1
UK	1983	1.6	1.1	1.1	1.2	0.9	1.0
Netherlands	1985	1.3	1.1	1.2	1.2	1.3	1.0
Hungary	1977	1.9	1.3	1.2	1.1	1.1	0.9
US	1975	1.8	1.4	1.4	1.1	1.2	1.0
Canada	1981	1.2	0.9	0.9	0.7	0.9	0.9

\* Out-of-home leisure is defined as spectator events, eating out, attending pubs/clubs, participating in active sports, taking walks, and leisure-related travel.

There are differences in how older and younger women spend their leisure time even in countries where they have the same average amount of leisure. Young women spend more time on leisure activities outside the home than do older women. Older women tend to spend more of their time watching television and listening to the radio (as a primary activity) than young women do. Leisure activities among elderly women will be discussed in more detail later.

#### (v) Gender differences in time use by age

All time-use surveys show substantial gender differences in time allocation. Men perform more paid work than women, women perform more domestic work than men. Total workloads tend, however, to be about the same for the two sexes. The question raised here is whether these gender differences vary substantially by age. Are there age groups that are characterized by a relatively high degree of gender equality in time use and others characterized by a high degree of inequality? Gender differences are calculated by subtracting the average time men in the various age groups spend on an activity from the average time spent by women. A difference of zero implies full equality in the average time spent by each sex on that activity. There may of course still be substantial variation between individuals and spouses, etc. Positive differences indicate that women spend more time on the activity in question than men do, negative differences that they spend less time than men.

Table 3.5 shows that gender differences in paid work vary considerably between countries and within countries by age. The age variation has an inverted "U" form, being generally low among young adults and elderly persons and high among the middle-aged. Gender differences in paid work are typically largest in the 35-44 year old age group. In Hungary, however, gender differences in paid work are comparatively low for this age group and are higher for both the 24-34 and 55-64 age groups. In Canada gender differences in paid work are constant in the middle age ranges.

No country consistently has the largest gender differences in paid work across all age groups. For young adults, gender differences in paid work time are largest in the US, whereas for persons aged 45-54 years they are largest in the Netherlands. Gender differences in paid work are largest for persons 55-64 years of age in Denmark and for 65-74 year-olds in Hungary. Likewise, no country can claim to have the greatest gender equality in paid work (smallest gender differences) in all age groups.

Women in all countries spend more time on domestic work than do men of the same age. The size of the gender differences in time use again varies by age and country. The pattern of age variation has the same general form for domestic work as for paid work: an inverted "U".

Differences in men's and women's domestic work time are typically low among the young and the old and high for the middle-aged. Gender differences in domestic work tend to peak earlier than in paid work. The largest differences are found in the 25-34 year age group.

Two patterns of variation in mid-life are observed. In Norway, the UK, Canada and Hungary, gender differences in domestic work have two peaks (an "M"-shaped curve); in Denmark, the Netherlands and the US there is only one peak. We have earlier seen a second peak in women's domestic work in Norway and Hungary which largely accounts for the second peak in gender differences. In the UK and Canada however, the second peak in gender differences is caused by the fact that men in late middleage perform relatively little domestic work.

Gender differences in domestic work are clearly larger in Hungary than in other countries. Domestic work appears to be somewhat more equally divided between the sexes in Canada than elsewhere.

Gender differences in total workloads are typically small. In most countries young adult women have higher total workloads than do men of the same age. In mid-life men in most countries have higher workloads than women. Among older persons, women again typically have the longest workloads. Hungary is the only country in which women have longer workloads than men in all age groups. Canada is the only country where gender differences in total workloads are consistently small for all age groups.

#### 3. Daily lives of older women

TABLE 3.5
Gender differences in paid work, domestic work and total
workloads, by age (women's time use minus men's)
(Hours per day)

Age group (Years)		18-24	25-34	35-44	45-54	55-64	65-74			
		Pa	id work				12.57.3			
Denmark	1975	-0.9	-3.2	-3.7	-3.4	-3.5	-1.0			
Norway	1980	-1.2	-3.4	-2.9	-2.8	-3.0	-1.6			
UK	1983	-0.6	-2.7	-3.3	-3.2	-2.4	-0.3			
Netherlands	1985	-0.6	-3.5	-4.1	-3.9	-1.2	-0.3			
Hungary	1977	-1.4	-2.7	-1.7	-2.5	-2.8	-2.4			
US	1975	-2.3	-3.9	-4.1	-3.2	-2.9	-0.3			
Canada	1981	-1.0	-2.3	-2.2	-2.2	-2.4	-1.5			
Domestic work										
Denmark	1975	1.4	2.3	3.2	2.6	2.5	1.5			
Norway	1980	1.8	3.4	2.7	2.4	3.0	2.4			
UK	1983	1.7	3.5	2.2	2.8	2.3	1.4			
Netherlands	1985	1.6	3.4	3.2	3.0	2.0	1.2			
Hungary	1977	2.8	3.5	2.5	3.1	3.4	2.9			
US	1975	2.0	3.7	3.5	3.0	2.6	1.5			
Canada	1981	0.8	1.3	2.6	2.0	2.2	1.1			
		Total w	orkload	!						
Denmark	1975	0.4	-0.9	-0.5	-0.7	-1	0.5			
Norway	1980	0.6	-	-0.1	-0.4	-0.1	0.8			
UK	1983	1.0	07	-0.3	-0.4	-0.1	1			
Netherlands	1985	1.0	-0.1	-0.9	-0.9	0.9	0.8			
Hungary	1977	1.0	0.9	0.8	0.6	0.7	0.5			
TIS I I S	1075	-03	_0.2	-0.6	-0.3	-03	1.2			
Canada	1975	-0.1	-0.2	-0.2	-0.2	-0.2	-0.4			
	-> 0 4	0.11		5114	0.144	0.140	011			

A common trend in the ECE countries is the marked growth in the number of elderly persons in the population; and most of these are women, due to women's longer life expectancy. It is, therefore, of particular interest to look more closely at how older women spend their time. Unfortunately few of the surveys include women over 74 years of age, so our discussion is limited to the "young old", who just recently have passed normal retirement and pension ages. In this section we will discuss how women 65 to 74 years of age divide their day between 21 types of activities.

Paid work is defined as before. Domestic work is divided into its six subgroups. In addition, we look at time spent on educational activities, meals and personal care/sleep as well as 11 types of leisure activities. The activity coding schemes vary slightly between countries, and international comparability is therefore lower at this more detailed coding level. Figures are presented for the average time spent on the various activities (minutes per day) and the percentage participating in the activity in the course of the diary period (day or week, depending on the country).

Older women in all countries except Hungary perform very little paid work. Whereas more than half of Hungarian women reported performing paid work on a random diary day, in the other countries with day-diaries only 4 -14 per cent reported paid work. Older women also spend very little time per day on education; but we may note that, in the course of a week, 7-8 per cent participated in educational activities in the UK and the Netherlands. Routine housework occupies 1 to 2 hours per day, the most in Norway and the least in the Netherlands. Meal Routine housework occupies 1 to 2 hours per day, the most in Norway and the least in the Netherlands. Meal preparation is not recorded as a separate activity in the Danish survey. In the countries where it is recorded, cooking occupies older women for between 1 to 2 1/2 hours per day. Hungarian women spend the most time cooking, Canadian women the least time. Meal preparation is the single most time-consuming type of domestic work for older women in the UK, the Netherlands and Hungary. In Norway and Canada more time is spent on routine housework than on meal preparation.

Small amounts of time are spent on child care, presumably in baby-sitting the youngest grandchildren or the first great-grandchildren. We may note that, in the course of a week, one in five elderly women in the UK and in the Netherlands reported spending time on child care. In the other countries where diaries were kept for a single, random day, the percentage reporting child care ranged from 7 to 14 per cent.

Shopping takes 20 to 40 minutes per day, the most in the UK and Denmark, the least in Hungary. On a random day, between one third and one half of all older women report shopping; in a random week almost all of them have been shopping. Odd jobs (such as care of pets, gardening, dwelling maintenance etc.) take another 1/2-3/4 of a hour and domestic travel from 1/4 to 1/2 hour.

(Minutes per day)									
	Denmark	Norway	UK	Netherland	Hungary	US		Canada	
Activity	1975	1981	1983	1985	1977	1975		1981	
Paidwork	21	37	3	2	106	16		28	
Education	1	-	2	1	-	1		4	
Domestic work:									
Routine housework	127	135	84	66	105	75		77	
Cooking	а	83	128	110	146	65		100	
Childcare	а	8	6	5	10	12		12	
Shopping	39	24	41	34	19	33		31	
Odd jobs	32	52	26	31	32	43		46	
Domestic travel	. а	12	16	18	а	35		31	
Meals	114	89	105	91	82	83		73	
Personal care/sleep	579	588	574	569	696	524		630	
Leisure activities:									
Television/Radio	141	121	174	146	88	169		169	
Reading	56	60	59	68	26	50		58	
Talking/Relaxing	98	29	56	32	36	62		29	
Visiting	131	87	50	95	19	68		37	
Hobbies	47	49	47	90	19	75		48	
Eating out	а	1	3	2	а	hodahā 119gi		а	
Pubs/clubs	а	a	4	2	а	w bidg tot a		a	
Spectator events	31	22	19	19	9	22		29	
Active sports	16	4	4	12	and line	2		1	
Walks	а	16	7	1	6	5		9	
Non-work travel	8	23	22	28	39	26		19	

TABLE 3.6

Time use among women 65 a - 74 years of age

<sup>a</sup>: not coded as a separate activity.

Domestic work in total occupies between 11-22 per cent of older women's time, with the lowest times recorded in Denmark and the highest in Norway and Hungary.

Meal times occupy approximately 1 1/2 to 2 hours per day, ranging from a low in the US of 73 minutes to a high of 114 minutes in Denmark. These differences may in part be due to the typical number of meals per day, but coding differences may also be involved.

Personal care, sleep and napping occupy between 40 and 48 per cent of the day for older women. Hungarian women clearly spend the most time on personal care and sleep. We can advance the hypothesis that Hungarian women need to spend more time on these activities because they participate far more actively in the labour market than do their contemporaries in other countries.

In all countries radio and television occupy a large portion of older women's leisure time. The second most time consuming leisure activity varies by country: in Denmark, Norway, and the Netherlands it is visiting/entertaining; in the UK and the US, it is reading; in Canada hobbies; and in Hungary, talking/relaxing. In the course of a random week, almost all women in the UK and the Netherlands report visiting. In the course of a random day, half of the elderly women or more in Norway, Denmark and Canada report visiting. Visits are least frequent in the US and in Hungary.

Older women spend little time on leisure activities outside the home such as movies, concerts, eating out, sports and outdoor recreation etc. These are infrequent pursuits, however, for persons in all age groups. Eating out was registered as a separate activity in only four countries (US, UK, the Netherlands and Norway). One in five American women reported eating out on a random day and one in four women in the UK reported eating out in the course of a random week. In contrast, only 2 per cent of Norwegian women reported eating out on a random day.

Elderly women in Norway, on the other hand, get more physical exercise by taking walks in their free time than do women in other countries. One in four Norwegian women reported taking a walk on a random day, as opposed to one in twenty in the US and Canada. Older women in the Netherlands are those who get the least exercise in this manner. In a random week only 4 per cent reported walking as a leisure activity. Danish women participate more frequently in other types of physical exercise and outdoor recreation ("active sports").

There are considerable differences between countries in the time spent watching television or listening to the radio, from 88 minutes per day in Hungary to 174 minutes in the UK. Even if we compare countries where older women have approximately the same total amount of leisure time, for example Norway and the US, we still find clear national differences in how women use this time. Norwegian women spend much less time on television/radio than American women do.

We may conclude that there are substantial variations in how older women spend their time in the different

Activity	Denmark <sup>a</sup> 1975	Norway <sup>a</sup> 1981	UK <sup>b</sup> 1983	Netherlands <sup>b</sup> 1985	Hungary <sup>a</sup> 1977	US <sup>a</sup> 1975	Canada 1981
Paidwork	8	12	8	20	55	11	4
Education	1	-	7	8	-	3	2
Domestic work:							
Routine housework	81	96	100	99	88	67	78
Cooking	. с	94	100	99	94	92	92
Childcare	С	7	22	19	11	14	8
Shopping	34	46	97	96	44	37	. 45
Odd jobs	31	47	78	94	42	45	46
Domestic travel	С	32	71	81	С	52	52
Meals	97	100	100	98	99	96	98
Personal care/sleep	100	100	100	100	100	100	100
Leisure activities:							
Television/Radio	83	93	100	98	61	84	79
Reading	59	81	99	97	34	61	44
Talking/Relaxing	50	61	93	98	19	37	47
Visiting	65	52	99	89	43	40	60
Hobbies	31	49	84	97	15	45	48
Eating out	С	2	25	14	С	20	С
Pubs/clubs	С	С	19	15	С	1	С
Spectator events	17	26	60	58	11	32	15
Active sports	19	6	11	50	-	2	5
Walks	С	24	19	4	9	4	5
Non-work travel	12	38	81	85	63	40	40

TABLE 3.7

Percentage of women 65 to 74 years of age who participated in the various activities in the course of the diary period

a: participated on a random day

<sup>b</sup>: participated in a random week

<sup>c</sup>: not coded as a separate activity

countries. Space does not allow for a corresponding analysis of all age groups, but we may advance the hypothesis that older women's time use varies more between countries than does younger women's.

## 4. Family cycle differences in time use

We have earlier discussed age-group differences in women's time use, finding them to be substantial in all countries for paid and domestic work and total workloads. Age variation in employment rates and age variation in employed women's work time are both important causes of age-group differences in women's time use. We will now turn to another important cause of age variation in women's time use: the family cycle. There is a strong correlation between age and marital status, the presence of children and the age of the youngest child in all countries. Differences in the timing of family transitions may account for much of the cross-national variation in age-specific We begin with an examination of the behaviour. relationship between women's age and family status. Thereafter, we discuss how women's time use varies by stage in the family cycle for all women and for employed women, focusing as before on paid work, domestic work, total workloads and gender differences.

Due to a lack of information on marital status for a large portion of the sample from the Netherlands, this country is excluded from the analysis.

The available data allow us to distinguish between six stages in the family cycle:

(i) Young unmarried women without children

- (ii) Young married women without children
- (iii) Mothers with children under 5 years of age
- (iv) Mothers with youngest child 5 to 15 years of age
- (v) Older married women without children under 16
- (vi) Older unmarried women without children under 16

Women 18-44 years of age are classified here as "young" while "older" refers to women 45-74 years of age.

Our data do not permit us to identify cohabiting couples and so they will be classified here as "unmarried" if they do not have children 0-15 years of age. From other sources, we know that cohabitation rates vary by age and are highest among young adults. There is considerable national variation in cohabitation rates and, among the countries studied, cohabitation rates are expected to be highest in Denmark. A likely consequence of this is that time-use differences between young unmarried and married women will be smaller in Denmark than in other countries.

Another limitation of the data is that we only have information about children 0-15 years of age. We do not know whether there are adult children present in the household or whether women have children who have left the parental home. We can assume that the majority of women under 45 years of age classified here as being without children have not begun their childbearing. There will however be women under 45 who have celebrated their youngest child's 16th birthday, particularly in countries with low fertility and/or early childbearing. The majority of older women classified here as being without children are mothers of adult children, and we may assume that many of them still have children living at home.

We must of course recognize that individual lives are far more complex than this simple classification of the family cycle suggests. Women may have a number of entries and exits from family roles through marriage, divorce, remarriage, childbearing before marriage etc. Motherhood is, however, a stable status, a so-called "absorbing state". For this reason we have given motherhood precedence over marital status in our Mothers may be married, cohabiting, classification. Although most countries are divorced or single. experiencing an increase in the number of female heads of households with children, the large majority of mothers with children under 16 years of age are married in all We have too few observations for single countries. mothers to permit separate estimates for this group.

#### (i) Women's family status by age

Table 3.8 shows the relationship between family cycle and age for women under 45 years of age, table 3.9 for those over 45. The same basic pattern of family formation in early adult life and family dissolution in late life is evident, as would be expected in all countries, but there are significant differences between countries in the timing of family transitions.

In the 18-24 years age group, slightly more than half of the women (56-57 per cent) are not married and have not yet become mothers in Denmark, Canada, the UK and Hungary. Marriage and childbearing appear to come earlier in the US than elsewhere: only 29 per cent of American women 18-24 years of age are unmarried, and a total of 40 per cent have small children. On the other hand, Norwegian women are comparatively late in starting their families. In the 18-24 year age group 70 per cent of Norwegian women are unmarried and only 17 per cent are mothers.

With increasing age, the proportion of young women who are unmarried declines sharply in all countries to 5-10 per cent in the 35-44 years age group. The proportion of women who are married without children also declines. The upswing in this group for women 35-45 years of age, particularly notable in Hungary, is assumably caused by the fact that a growing number of women by this time have finished their child-care responsibility for children under 16.

TABLE 3.8

Women under 45 years of age by family status (Per cent)

Family status			No children Unmarried/Married		No children Mothers Unmarried/Married Youngest childre			hers children	Total
					0-4	5-15			
Denmark	1975	18-24	57	13	30	-	100		
		25-34	10	7	66	18	100		
		35-44	9	14	21	56	100		
Norway	1980	18-24	70	13	17	-	100		
		25-34	13	6	64	17	100		
		35-44	5	5	20	70	100		
UK	1983	18-24	56	20	18	6	100		
		25-34	10	16	53	20	100		
		35-44	9	17	19	55	100		
Hungary	1977	18-24	56	8	34	2	100		
		25-34	9	6	53	32	100		
		35-44	8	34	12	46	100		
US	1975	18-24	29	31	37	2	100		
		25-34	9	12	51	29	100		
		35-44	7	10	99	74	100		
Canada	1981	18-24	57	21	14	8	100		
		25-34	20	16	41	23	100		
		35-44	10	16	19	56	100		

The proportion of women who have small children is highest in all countries in the 25-34 years age group, subsequently declining sharply. We may note, however, that there are considerable cross-national differences in how many of the women in this age group have small children, ranging from the high in Denmark of 66 per cent to the low in Canada of 41 per cent.

By the age of 45-54 years, the large majority of women in most countries no longer have children under 16. Norwegian women are again significantly "delayed" in reaching the family cycle stage of adult children only.

In Norway 66 per cent of women 45-54 years of age have at least one child under 16; in the US the figure is 38 per cent, in Denmark and Canada 21-22 per cent, in the UK 16 per cent and in Hungary only 10 per cent. (The proportion who are childless is unknown but we may assume that approximately 10 per cent are childless for physiological reasons.)

In later life the proportion of unmarried women grows, presumably as the result of the spouse's death. By the age of 65-74 years, approximately half of the women are not (no longer) married in most countries. Highest marriage rates for this age group are observed in the US (62 per cent) perhaps indicating a higher rate of remarriage or smaller age differences between spouses at time of marriage.

#### (ii) Family cycle differences in time use

#### (a) Women's paid work

The family cycle has a profound influence on women's time use but the effect of the first transition, i.e.

TABLE 3.9

Women over 44 years of age by family status (Per cent)

Family			No child	lren	Moth	Total		
status			Unmarried/Married		Youngest children			
					0-4	5-15		_
Denmark	1975	45-54	17	62	-	21	100	
		55-64	34	64	-	1	100	
		65-74	54	46	-	0	100	
Norway 1980	45-54	9	26	2	63	100		
	55-64	13	57	-	29	100		
		65-74	46	43	-	11	100	
UK 1983	45-54	15	70	-	16	100		
		55-64	20	78	-	3	100	
		65-74	53	46	-	1	100	
Hungary	1977	45-54	16	74	1	10	100	
		55-64	28	70	1	1	100	
		65-74	45	54	-	1	100	
US	1975	45-54	10	50	2	38	100	
		55-64	33	62	-	5	100	
		65-74	36	62	-	2	100	
Canada	1981	45-54	24	53	1	22	100	
		55-64	40	52	3	7	100	
		65-74	54	43	-	3	100	

marriage, is minor for young women's paid work time. In the US, the Netherlands, the UK and Norway, young married women (without children) spend at least as much time on paid work as the unmarried do; in Norway and Hungary it is a bit more (table 3.10).

In Denmark and Canada marriage is associated with a slight decrease in paid work for women; but the differences are not large. These results clearly indicate that marriage in itself no longer causes women to withdraw from the labour market.

Childbearing has, on the other hand, dramatic consequences in the short term and, perhaps, life-long consequences, for women's paid work. Mothers with small children spend much less time on paid work than other young women do. The largest difference was observed in the UK where young married women spent on the average 4.5 hours per day on paid work and mothers with small children only 0.9 hours.

The effect of having small children on women's paid work time was least in Canada, as indicated by a difference in average paid work time between young mothers and young married women without children of only 1.8 hours.

Mothers with school-age children spend more time on paid work than mothers with pre-school children in all countries but less time than young married women without children.

Older women who do not have children under 16 spend substantially less time on paid work than mothers with school-age children, regardless of their marital status. This is in part due to the previously mentioned age boundaries of our classification scheme, i.e. 45-74 years of
# TABLE 3.10

Average time spent on paid work by all women and employed women in different stages of the family cycle (Hours per day)

-							
Family status		Under veai	45 rs	Mothers children	with 0-15	45 yea	rs and er
		No chil	dren	(0-4/5-	15)	No chi	ldren
		Unmar	ried			Unma	rried
		/Marr	ied			/Mar	ried
		Ali	wom	en			
Denmark	1975	4.4	4.1	1.9	2.4	1.3	1.7 .
Norway	1980	3.6	3.9	1.4	2.8	2.2	2.1
UK	1983	4.4	4.5	0.9	2.2	1.5	0.6
Hungary	1977	4.8	5.2	3	5	3.4	3
US	1975	4.1	4.1	1.5	3.1	1.8	2.6
Canada	1981	4.2	3.7	1.9	2.7	1.6	1.6
		Emplo	yed w	omen			
Denmark	1975	5.8	5.4	3.8	4.1	3.6	4.9
Norway	1980	4.8	5.4	2.7	3.8	4.1	5.2
UK	1983	6.1	5.8	3.1	3.9	4.5	4.6
Hungary	1977	5.7	6.5	5	5.9	5.8	6
US	1975	6.1	5.7	4.3	5.8	5.3	6
Canada	1981	5.4	4.6	4.4	4.7	4.5	4.8

age, which extend beyond the normal age of retirement. Marital status in later life has only a minor effect on women's paid work time. Differences in age composition (unmarried women as a group are somewhat older than those who are married) would lead us to expect lower paid work time for unmarried women, while the possibilities marriage represents for financial support by the spouse (as well as the domestic obligations marriage may entail) lead us to expect that unmarried women would perform more paid work than married ones.

Differences in women's employment rates, by stage, in the family cycle explain much of the variation in paid work time described above, though they are not the only source of variation. Employed women's work time also varies with the stage in the family cycle. Marriage tends to reduce employed women's paid work slightly for both younger and older women. The effect of marriage on young employed women's paid work is the largest in Canada. Young employed unmarried women in Canada spend 5.4 hours per day on paid work while those who are married spend 4.6 hours per day. In Norway and Hungary, however, young employed married women perform more paid work than those who are unmarried. The effect of marriage on older employed women's paid work time is largest in Denmark and Norway where married women spend 1.1-1.3 hours per day less on paid work than those who are unmarried.

Employed mothers with small children spend considerably less time on paid work than young married women in most countries. Employed mothers with schoolage children work more than those with preschool children

# **TABLE 3.11**

# Average time spent on domestic work by all women and employed women in different stages of the family cycle

(Hours per day)

Family status		Under 45 No child Unmarr /Marri	years Iren ried ïed	Mother children 4/5-	rs with 0-15 (0- 15)	45 years No chi Unma /Mar	and over ildren erried eried
		A	ll won	nen			
Denmark	1975	1.3	2.5	3.7	3.7	3.5	2.3
Norway	1980	2.2	3.3	6.7	5.1	5.1	4.2
UK	1983	1.9	3.4	7	4.7	5	4.6
Hungary	1977	2.2	4.1	6.3	5	5.2	4.5
US	1975	2.5	3.8	6.7	5.3	5	4.4
Canada	1981	2.3	3.4	6.4	4.8	4.7	4
		Emp	loyed v	vomen			
Denmark	1975	1.4	2	2.9	3.1	2.8	1.9
Norway	1980	1.9	3.3	6.1	4.7	4.4	2.8
UK	1983	1.5	2.8	5.7	4.5	4	3.2
Hungary	1977	2.2	3.5	4.6	4.2	4.1	3.3
US	1975	2.2	3.2	5.2	4	3.7	3.2
Canada	1981	2.3	3.1	5.4	4	4	3.1

in all countries. In Canada, the US and Hungary their work equals that of young employed married women. There are also only small differences between employed women in the beginning and end of the family cycle in these countries. We may advance a hypothesis that childbearing in Canada, the US and Hungary does not have life-long consequences on employed women's work time, so that paid work is increased again after child rearing responsibilities are over.

In Denmark, Norway and the UK there are large differences in paid work time between employed mothers of school-age children and young employed married women. There are also large differences for younger and older employed women without children. Employed women in the later stages of the family cycle spend less time on paid work than in early phases before childbearing. One exception to this is that, in Norway, older unmarried employed women work more than young ones. These results may suggest that, for employed women in Denmark, Norway and the UK, there is, after child-rearing, no going back to the same levels of paid work as before. Crosssectional analysis suggests that childbearing has had and continues to have life-long consequences for paid work, even for women remaining in the labour market in these countries.

### (b) Women's domestic work

Although marriage has little influence on younger women's paid work, it does significantly affect their domestic work. Being married entails 1-1-1/2 hours more domestic work per day even before children are born. The impact of marriage is greatest in Hungary. This may be due to the national differences in the timing of child rearing mentioned earlier so that a comparatively high proportion of married women under 45 years of age in Hungary, classified here as being without children, actually have grown children in the household.

Table 3.11 shows how women's domestic work varies by stage in the family cycle. Having small children further increases domestic work, as all parents know, but there are substantial cross-national differences in the size of the increase. In Denmark, mothers with children under 5 years of age spend only 1.2 hours per day more on domestic work than young married women without children; in the UK they spend 3.6 hours more per day. In all countries domestic work peaks when there are small children to be cared for. Mothers with school-age children generally spend less time on domestic work than mothers with preschool children, and domestic work continues to decrease as the children grow up.

Most noteworthy are the large differences in domestic work before and after child rearing. Domestic work appears to decline after child rearing phases in the family cycle but not back to the low levels observed for prechildbearing. Older unmarried women in the UK, for example, spend 4.6 hours per day on domestic work, young unmarried women only 1.9 hours. Today's young women may well go through life spending less time on domestic work than cohorts preceding them, but these results suggest that they may not return to their initially low levels of domestic work after child rearing.

The pattern of family cycle variation in employed women's domestic work time is the same as the average pattern for all women, although the differences between family cycle stages are, as would be expected, smaller.

#### (c) Women's total workloads

Total workloads peak at different phases in the family cycle in different countries, as may be seen in table 3.12.

Total workloads peak comparatively late in the US and Hungary where total work time is highest for mothers with school-age children. In Norway, the UK and Canada, total workloads are highest for women with small children. In Denmark, the highest total workload is observed for young married women without children.

Total workloads are generally lower among older women than among younger women with the same marital status. In Norway, however, married women without children have approximately the same total workloads, regardless of age, and in the US the same applies to unmarried women. In all countries, and both early and late in the family cycle, marriage tends to increase women's total workloads, primarily due to the extra domestic responsibilities it entails.

Total workloads of employed women are substantially higher than the average for all women. The reduction in domestic work which employed women enjoy does not fully compensate for the time they spend on paid work. There is far less of a decline in total workloads among employed women after child-rearing and more stability in mid-life compared with the average for all

#### **TABLE 3.12**

# Total workloads for all women and for employed women in different stages in the family cycle

(Hours per day)

Family status		Under 45 No chilo Unmarrie Marrieo	years lren d/ l	Mother: with childrer 0-15 (0-4/5-1)	s n 5)	45 year. ove No chil Unmarrie Marr	s and r dren ed/ ied
		A	ll wor	ien			
Denmark	1975	5.7	6.6	5.6	6.2	4.8	4.0
Norway	1980	5.8	7.3	8.1	8.0	7.2	6.3
UK	1983	6.3	7.9	8.2	7.6	6.5	5.2
Hungary	1977	7.1	9.4	9.3	10	8.6	7.6
US	1975	6.6	7.9	8.2	8.5	6.8	6.5
Canada	1981	6.5	7.1	8.3	7.5	6.2	5.5
		Emp	loyed v	vomen			
Denmark	1975	7.1	7.4	6.7	7.2	6.4	6.8
Norway	1980	6.8	8.7	8.8	8.5	8.5	8.0
UK	1983	7.6	8.6	8.9	8.4	8.5	7.8
Hungary	1977	7.9	9.5	9.6	10.2	9.8	9.3
US	1975	8.3	8.9	9.5	9.8	8.9	9.2
Canada	1981	7.7	7.8	9.7	8.8	8.3	7.9

women. The only country where there is a marked peak in employed women's total workloads over the family cycle is Canada, where employed mothers have significantly higher total workloads than other employed women.

The effect of marital status on employed women's total workloads varies by age and country. For employed women, being married is associated with having a higher workload in both younger and older groups in Norway, the UK, and Hungary. In the US and Denmark, however, we find that older unmarried employed women have slightly higher total workloads than those who are married, due to spending more time on paid work.

#### (d) Gender differences in time use by family cycle

Gender equality in paid work is highest among young unmarried persons. In Denmark, the UK and Canada men and women in this phase of the family cycle spend equal amounts of time on paid work. In Norway, the US and Hungary men spend more time on paid work than women do, but the gender differences are smaller than in other family cycle phases.

Marriage increases gender differences in paid work in all countries, and having small children increases them even more. In most countries the effect of small children is greater than the effect of marriage. Canada and Denmark are the exceptions. Here gender differences increase most with marriage. In all countries, gender differences in paid work peak in the phase with small children, ranging from a 5.5 hour difference in the UK to a 3.6 hour difference in Canada.

Gender differences in paid work decline significantly when children are of school age, and they continue to decline through the later phases of the family cycle. Norway is the only country where gender differences in paid work are larger among older unmarried persons than among older married ones, due to a relatively high retirement age and high rates of employment among elderly men.

Gender differences in domestic work are commonly assumed to be the result of a division of household labour between spouses. The figures in table 3.13 clearly show that gender differences in domestic work are also prevalent before marriage. In all countries, young unmarried men spend less time on domestic work than women do. Gender equality in domestic work is, however, highest in this beginning stage of the family cycle.

Gender differences in domestic work increase with marriage and increase further when there are small children in the household. Gender differences peak among parents with small children in all countries, with fathers spending 3 to 4.5 hours less time than mothers on domestic work. The country with the greatest gender equality in domestic work among parents with small children is Denmark, followed closely by Canada.

Gender differences in domestic work generally decline when children are of school age. They then tend to

#### **TABLE 3.13**

Gender differences in paid work, domestic work and total workloads, by stage in family cycle (Women's time use minus men's)

(Hours per day)

		1							
Family status	ł	Un 45 y No ch	Under Parents 45 ye 45 years with No children No co 0-15 (0-4/5-15)		Under Parents 45 years an 15 years with over 16 children children No childre 0-15 (0-4/5-15)		Parents with children 0-15 (0-4/5-15)		ars and ver aildren
		и	b			а	b		
			Paid w	ork					
Denmark	1975	-0.1	-2.8	-4.8	-3.7	-3.0	-2.0		
Norway	1980	-0.8	-1.9	-4.3	-3.3	-1.6	-2.0		
UK	1983	-0.1	-1.3	-5.5	-3.3	-2.1	-1.4		
Hungary	1977	-0.9	-1.7	-3.7	-2	-2.0	-1.2		
US	1975	-0.7	-2.2	-5.1	-3.5	-2.2	-1.3		
Canada	1981	0.1	-2.2	-3.6	-2.8	-2.0	-1.6		
		L	Domestic	work					
Denmark	1975	0.7	2.0	3.0	3.0	2.8	1.2		
Norway	1980	0.9	1.5	3.9	2.9	2.6	1.8		
UK	1983	0.7	1.4	4.4	2.7	2.2	0.9		
Hungary	1977	1.2	2.6	4.2	3.3	3.3	2.2		
US	1975	0.9	1.7	4.4	1.3	2.5	1.1		
Canada	1981	0.5	1.4	3.2	2.3	2.0	1.2		
		Ta	otal work	k loads					
Denmark	1975	0.6	0.2	-1.4	-0.6	-0.2	-Ò.8		
Norway	1980	0.1	-0.4	-0.4	-0.3	0.9	-0.2		
UK	1983	0.6	0.1	0.4	0.3	0.8	-0.5		
Hungary	1977	0.4	1.0	0.4	1.3	1.4	1.1		
US	1975	0.2	-0.5	-0.7	-0.2	0.3	-0.1		
Canada	1981	0.6	-0.8	-0.4	-0.5	-	-0.8		

a: Unmarried

b: Married

remain at about the same level for older married persons. In the US, however, we may note that gender differences in domestic work increase to form a second peak among older married persons without children. Canada is the country with the greatest gender equality among parents with school-age children and for older married persons without children.

The effects of marriage in the later phases of the family cycle are the same as in the beginning phases. Gender differences in domestic work are larger among married persons than among unmarried ones. With the dissolution of marriage in later life, gender differences in domestic work decline; but they do not appear to go back to the initially low levels which characterize the initial stages of the family cycle, except in the UK and the US.

Hungary is the only country where women have higher total workloads than men in all phases of the family cycle. In other countries, men have higher total workloads in some phases, women in others. Gender differences in total workloads peak in different phases of the family cycle in the various countries.

In Denmark they are highest for parents with small children (1.4 hours per day longer for fathers), in Hungary and Norway they are highest among older married persons without children (respectively 1.4 and 0.9 hours per day longer for women).

#### 5. Longitudinal analysis of time use changes

Cross-sectional differences in time use between age groups and persons in various phases of the family cycle are often the best information available on how activity patterns change as people grow older but, as mentioned earlier, they may lead to erroneous conclusions about ageing. We may generate hypotheses about changes over the life course from cross-sectional differences, but age changes can only be studied empirically through longitudinal analyses following individuals or aggregates of individuals over time.

Our data do not permit us to follow individual women as they pass through stages in the family cycle; but we can follow birth cohorts, as a group, over time by locating their surviving members in a series of independent crosssectional samples. These "synthetic cohorts" give a reasonable approximation of the aggregate changes occurring over time, provided that cohort attrition due to mortality does not seriously bias the results. Mortality rates are clearly highest in the upper age ranges and the estimates derived for older women will be less reliable than for younger ones. Longitudinal analyses of women's time use will be presented for three countries: Denmark, the UK and Norway.

It should be stressed that the stability and change over time which is observed for the various age groups refers to a specific historical period, defined by the years in which data collection occurred. Ageing may be associated with other time-use changes in other historical periods. The countries chosen to illustrate the longitudinal approach did not conduct their surveys simultaneously. Changes in Denmark are recorded from the mid-1960s to the mid-1970s. In Norway, changes are measured from the beginning of the 1970s to the beginning of the 1980s and, in the UK, from 1975 to 1987.

Cross-national comparability of the results is further reduced by differences in the time gap between successive surveys: 11 years in Denmark, 9 in Norway. The UK is represented by three surveys, with lapses of eight and four years respectively. A consequence of the national differences in the time interval between measurements is that the age groups identified in the initial survey will have reached slightly different ages in the final survey in each country.

For each of the selected countries, age changes in women's paid and domestic work will be discussed and these will be compared with the results from the crosssectional analysis of age group differences presented earlier.

# (i) Ageing in Denmark

Time spent on paid work changed over time for women in some age groups in Denmark but not for others (table 3.14). Women 18-24 years of age in 1964 spent 2.8 hours per day on paid work. Eleven years later in 1975, when they were 29-35 years of age, they spent 2.5 hours per day on paid work, a decline of 0.3 hours. They may, of course, have increased and decreased work times in the intervening years, as a period of 11 years is a long time, particularly for young adults. Women who were 25-34 years of age in 1964 significantly increased their paid work time from 1964 to 1975, spending 1.1 hours more per day by the time they were 36-45 years of age in 1975. A small increase in paid work is also observed for women who were 35-44 years of age in 1964, from 1.9 to 2.3 hours per day.

Older women reduced their paid work. For those who were 45-54 years of age in 1964 paid work time declined by 0.8 hours per day, to an average of 1.4 hours when they are 56-65 years old in 1975. The largest decline in paid work associated with ageing occurred, as would be expected, around the usual time for retirement. Women 55-64 years of age in 1964 spent 1.4 hours per day on paid work; 11 years later when they were 66-75 years of age only 0.2 hours.

Time spent on domestic work changed over time for all age groups except the youngest. Women 18-24 years of age in 1964 spent the same amount of time on domestic work in 1975 when they were 29-35 years of age as they did 11 years earlier. All other age groups substantially reduced their domestic work over the 11 year period. The 35-44 years age group showed the greatest reduction in domestic work. In 1964 they spent 5.5 hours per day on domestic work, in 1975 only 3.4 hours.

These results give a quite different picture of the variation in paid and domestic work over the life cycle from the one predicted on the basis of cross-sectional age group differences. Cross-sectional differences overestimate women's withdrawal from the labour market in early adult years. Cross-sectional age differences suggest a decline in

Age at time of interview		Paid work						
(Years)	1964	1975	Observed change	Predicted change <sup>a</sup>	1964	1975	Observed change	Predicted change <sup>a</sup>
18-24	2.8				3.4			
29-35		2.5	-0.3	-0.8		3.5	0.1	1.1
25-34	1.5				5.4			
36-45		2.6	1.1	-0.4		3.7	-1.7	0.7
35-44 46-55	1.9	2.3	0.4	-0.1	5.5	3.4	-2.1	-0.5
45-54	2.2				4.5			
56-65		1.4	-0.8	-0.7		3.3	-1.2	-0.1
55-64	1.4				4.1			
66-75		0.2	-1.2	-1.3		2.7	-1.4	-0.5
65-74	0.6				3.7			
75-85		0.1	-0.5	а		2.2	-1.5	b

**TABLE 3.14** 

Changes in women's paid and domestic work as they aged in Denmark 1964-1975 (Hours per day)

 $^{a}$ :"Predicted" on the basis of cross-sectional age-group differences in 1975 for approximately the same age groups.

<sup>b</sup>: Data not available.

paid work of 0.8 hours per day whereas longitudinal analysis shows a decline of only 0.3 hours.

Cross-sectional age differences misrepresent the agerelated changes in paid work most seriously for women between the ages of 25 and 44 years. Cross-sectional age differences suggest a slight decline in paid work from 25 -34 years of age to 35-44 years of age, while longitudinal analysis shows that in the period under study women in this phase of the life cycle substantially increased their paid work. This raises serious doubts about the hypothesis that childrearing has long-term consequences for women's paid work in Denmark which was suggested by the crosssectional differences.

For women of 45 years of age and over, the two methods give approximately the same results. Crosssectional age-group differences suggest a decline and longitudinal analysis shows a decline in paid work of approximately the same magnitude.

For domestic work, we find that cross-sectional agegroup differences give a misleading account of age changes in all stages of the life course. Cross-sectional age group differences suggest a sharp increase in women's domestic work in early adult years up to a peak in the 35-44 year age group. Longitudinal analysis showed stability for the youngest age group and a sharp decline, rather than an increase, as women aged from 25-34 to 36-45 years. Both methods depict a decline in domestic work in later life, but cross-sectional age group differences underestimate the magnitude of the reduction.

# (ii) Ageing in Norway

Age changes in paid work were small in Norway in the 1970s for young women (table 3.15). Women 16-24 years of age in 1971 spent 2.6 hours per day on paid work. Nine years later, in 1980 when they were 25-33 years of age, they spent 2.4 hours per day on paid work. Large age changes in paid work were, however, observed for women of 25-34 and 35-44 years of age. Both age groups increased paid work by slightly over an hour per day from 1971 to 1980. Women 45-54 years of age in 1971 maintained a constant level of paid work. Paid work declined as women passed the age where they are entitled to social security benefits (67 years).

Substantial changes in domestic work over time are observed in Norway in the 1970s for all age groups except the oldest. Domestic work increased sharply for women as they aged from 16-24 years to 25-33 years (+2.3 hours per day). Women in all other age groups reduced their domestic work.

Age changes in paid work in early adulthood are reasonably well accounted for by cross-sectional age-group differences. In mid-life they are not. Cross-sectional age differences in 1980 suggest that women's paid work in Norway was stable in the middle age ranges. Longitudinal analysis reveals a substantial increase.

Again, the hypothesis on the long-term negative consequences of child rearing for women's paid work receives little support. Age-group differences suggest that paid work begins to decline after 45-54 years of age, whereas longitudinal analysis shows that the decline comes later in the life cycle.

Age changes in domestic work for women over 25 are poorly captured by cross-sectional age differences.

Women reduced their domestic work over time far more than age-group differences imply. Cross-sectional differences suggest, for example, a second peak in domestic work at the age of 55-64 years. Longitudinal analysis shows that women did not increase domestic work at this time but rather reduced it by 1.2 hours per day.

			(110	nio per day)				
Age at time of interview			Paid work			Don	nestic work	
(Years)	1971	1980	Observed change	Predicted change <sup>a</sup>	1971	1980	Observed change	Predicted change <sup>a</sup>
16-24 25-33	2.6	2.4	-0.2	-0.2	3.3	5.6	2.3	2.5
25-34 34-43	1.8	2.9	1.1	0.7	6.7	5.3	-1.4	-0.4
35-44 44-53	2.2	3.4	1.2	0.2	6.7	4.7	-2.0	-0.5
45-54 54-63	2.4	2.5	0.1	-1.0	6.2	5.0	-1.2	0.4
55-64 64-73	2.1	0.8	-1.5	-1.6	5.7	5.3	-0.4	0.2

**TABLE 3.15** 

Changes in women's paid and domestic work as they aged in Norway 1971-1980

(Hours per day)

a: "Predicted" on the basis of cross-sectional age-group differences in 1980 for approximately the same age groups

(iii) Ageing in the UK

Age changes in women's time use in the UK can be studied over a period of 12 years, with 3 points of measurement (table 3.16). Due to the differences in the time between measurements the age groups overlap slightly.

For the youngest women, paid work declined from 1975 to 1983 and further declined from 1983 to 1987. Women of 15-24 years of age in 1975 spent 4.1 hours per day on paid work. Eight years later in 1983 when they were 23-32 years of age they spent 2.6 hours per day on paid work. Four years later in 1987 when they were 28-36 years of age they spent 2.3 hours per day on paid work.

For women of 25-34 years of age in 1975, paid work increased over the 12-year period by half an hour in the first 8 years and an additional half-hour in the next 4 years. This suggests that child-rearing had only a temporary negative effect on women's paid work.

Paid work in mid-life declined in the first period as women aged from 35-44 to 43-52 years; but thereafter it increased slightly, bringing them back to a level not much lower than they started with. Shifting labour market conditions and job opportunities in the period under observation are a more likely explanation for the results than are age-related changes in women's domestic responsibilities. A consistent decline in paid work was observed for women 45 years of age and over.

Domestic work increased sharply for the youngest women in the first period, slightly in the second. For women 25-34 years of age in 1975 domestic work remained about the same for 8 years and later declined. A similar pattern is found for those who were 35-44 years old in 1975, with an initial period of stability which is then followed by a slight decline. Women 45-54 years of age in 1975 showed a different pattern: an initial period of stable domestic work was followed by an increase in the second period as they approached retirement.

Cross-sectional age-group differences in the UK in 1983 suggest that paid work declines and that domestic work is stable for women in early middle age. Longitudinal analysis reveals on the contrary that women increased their paid work and decreased their domestic work in this age range. Cross-sectional differences also underestimate the steepness of the decline in paid work after 45-54 years of age and do not capture the increase in domestic work at this stage of the life cycle. For the other age groups, however, cross-sectional age-group differences give a reasonably accurate account of age changes in women's time use in the UK.

# (iv) National differences in ageing

While not strictly comparable because of differences in survey timing, the results indicate considerable national differences in age-related changes in women's time use. Young women withdrew from the labour force to a greater degree in the UK than in Norway and Denmark. Middleaged women re-entered the labour market to a greater degree in Norway than elsewhere and left it earlier in the UK. With regard to domestic work, we find that young women in Denmark maintained a more stable level of

#### **TABLE 3.16**

Changes in women's paid and domestic work as they aged in the UK 1975-1987

(Hours per day)

Age at time of interview			Paid work				D	omestic wo	rk .	
(Years)	1975 -	Average 1983	1987	Observed change	Predicted change	1975	Average 1983	1987	Observed change	Predicted change
15-24	4.1					2.7	e.			
23-32		2.6					5.2		т. Т	
28-36			2.3	-1.8	-1.6	С.		5.4	2.7	2.8
25-34	1.9					5.5				
33-42		2.4					5.6			
37-46			2.9	1.0	-0.4			4.9	-0.6	0.1
35-44	2.8					4.9				
43-52		2.2					5			
47-56			2.5	-0.3	-0.1			4.6	-0.3	-0.3
45-54	2.8					4.8				
53-62		1.8					4.9			
57-66			1.5	-1.3	-0.5			5.4	0.6	-0.1
55-64	1.6					4.7				
63-72		0.1					5			
67-76			а	-1.5	-1.3				0.3	-0.5
	1									

\* "Predicted" on the basis of cross-sectional age-group differences in 1983 for approximately the same age groups.

": Data not available.

domestic work than women elsewhere. Middle-aged women in the UK did not reduce domestic work as did women in Norway and Denmark. Older women in Denmark reduced domestic work more than women in the other countries.

In all countries we have found instances in which age changes predicted from cross-sectional analysis of agegroup differences account reasonably well for the changes in time use that have actually occurred over the life course, as well as instances in which they do not. When crosssectional and longitudinal analysis give totally different results, we can conclude that major changes in behaviour between cohorts have taken place.

Differences in survey timing may account for some of the variation in ageing patterns. The results suggest that there were cohort changes for the youngest age group in Denmark (born 1940 to 1946) whereas, in the other countries, which conducted their surveys somewhat later, cohort changes are indicated not for the youngest women but for the next older age group. Differences in survey timing, however, cannot explain all cross-national variation in cohort changes. The considerable changes that occurred for middle-aged women in Norway (particularly women born between 1917 and 1936) were found elsewhere only to a small degree, even if we take into account differences in survey timing. These changes may be attributed to the very favourable labour market conditions for middle-aged women in Norway in the 1970s (very low unemployment levels and a rapid expansion of part-time employment in the public sector which largely recruited middle-aged women).

### 6. Summary

This chapter describes how women of different ages and at different stages of the family cycle spend their time, focusing on the major activity categories of paid and domestic work and the resulting total workloads. Variation patterns for all women and for employed women are compared using recent national time-use surveys from Denmark, Norway, the Netherlands, the UK, Hungary, Canada and the US. Differences in men's and women's use of time by age and family cycle are also described and compared.

The results show that women's time use and gender differences in time use vary sharply by age and stage in the family cycle in all countries studied. Differences in female employment rates account for much of the variation in women's time use; but the analysis has shown that the time spent on paid and domestic work also varies by age and family cycle for employed women, contributing to the variation observed for the female population as a whole.

The family cycle "explains" more variation in women's time use than age alone does, but the two are closely related as transitions in the family cycle are to a large degree age-dependent. Comparisons between countries reveal striking similarities in the overall pattern of age and family cycle variation, as well as marked differences for particular segments of the life course. We found, for example, that young women perform the most paid work in some countries whereas, in others, most paid work was performed by middle-aged women. Women's domestic work peaks in all countries when there are small children in the household, but some countries exhibit a second peak in late middle-age while others do not.

Cross-national differences cut across regional boundaries. The countries which most consistently exhibit a similar pattern of time-use variation by age and family cycle are Norway and Hungary. With the exception of women's paid work, we find strong similarities in variation patterns in Canada and the UK on the one hand and in Denmark and the US on the other. Gender differences in time use show more consistent patterns across countries than does women's time use alone.

Cross-sectional analysis of age and family cycle differences may be used to generate hypotheses about changing time use allocation over the life cycle but, as they confound age, period and cohort effects, better data will often cause us to reject these hypotheses. This report examines recent changes in women's time use through longitudinal analyses tracing various cohorts over a period of approximately ten years in three countries (Denmark from 1964 to 1975, Norway from 1971 to 1980 and the UK from 1975 to 1987). The observed age changes are then compared with changes predicted on the basis of current age-group differences.

In all three countries there are age ranges where cross-sectional differences are a reasonable proxy for age changes, indicating that no systematic change in women's age-related behaviour occurred in the period under study. This applies especially for paid work in late adulthood but also for young adults in the most recent surveys. In other age ranges there is no correspondence between age changes and age group differences. Longitudinal analysis and cross-sectional analysis give completely different pictures of changes over the life course, indicating substantial cohort shifts in behaviour in the period under study.

We have been able to trace cohort aggregates over a relatively short period, describing how their time use differed one decade after the first measurement. Out of a life span of 70-80 years, this is only a small segment of the age changes a cohort will experience. Cradle-to-grave time diaries may be an entertaining thought but are hardly practical. We will be well into the next century before we can follow a synthetic cohort all the way from early adulthood to old age with modern time-diary techniques.

In the meantime, we will have to make do with information on age changes gleaned from the experiences of different cohorts. We can study age changes in late life by tracing early cohorts and age changes early in life by tracing more recent cohorts. If we try to piece these bits of information together to construct a model of behaviour changes over the life course, our conclusions will be subject to exactly the same sources of error as when inferences are made from cross-sectional age group differences.

Many ECE countries have conducted at least two time-use surveys and plan future surveys as well. Sources of data for longitudinal analysis of time use are expanding rapidly but suffer from a number of common shortcomings. The time interval between measurements (typically a decade) is too long to capture important changes in certain phases of the life cycle. The surveys are typically composed of independent samples of the population and do not allow us to trace individuals over time, thus losing important information about the underlying process of change. Panel studies re-interviewing the same individuals after some years have been conducted in Canada and the Netherlands but such studies are still rare. The comparability of early and late surveys is often less than desired because of differences in sampling design, coding procedures etc.

However, in my opinion, the most serious shortcoming of the currently available data is that we cannot study transitions in the family cycle directly. The analysis presented here suggests that the stage reached in the family cycle is more important than age for understanding women's time use. This implies that our primary interest should be the longitudinal analysis of the family cycle rather than the study of birth cohorts. A recommendation for future time-use surveys is for the routine collection of family and employment histories so that not only birth cohorts but also marriage cohorts and parenting cohorts can be traced retrospectively in order to utilize the rich information on time use already assembled. Prospective panel studies identifying transitions in work and family roles should also be encouraged.

New generations "age" in new ways. In order to monitor social change we need to explicitly compare the life course experiences of persons born in different historical periods. Currently available data allow one to compare age and family-cycle specific behaviour in different historical periods showing how, for example, today's 30 year-olds allocate their time compared with the 30 year-old a decade ago. These data beg to be analysed. It is to be hoped that, in the future, we shall also have possibilities for comparing longitudinal analyses of behavioural changes associated with ageing and family cycle transitions for succeeding cohorts.

# Chapter 4

# THE ROLE OF EAST EUROPEAN WOMEN IN THE INFORMAL AND HOUSEHOLD ECONOMIES

# by Jana Viteckova

# 1. Introduction

The countries of central and eastern Europe are currently undergoing a radical transformation of their social and economic systems. Many changes have occurred since the national time use studies considered in this chapter were carried out. However, even though this paper examines some of the problems of the past, the analysis presented here will also be relevant to many of the new problems of the future.

The study aims at evaluating the economic role of women in eastern Europe, using the available time use data. It focuses particularly on women's participation in the informal economy and on the time-use research methods needed to measure such participation reliably.

The structure of the study corresponds with this aim. The paper first deals with conceptual matters, then one evaluates the results of some recent time use surveys in the countries formerly with centrally planned economiesand finally deals with some methodological conclusions.

# 2. Concepts and reality

# (i) Starting points

In order to evaluate women's participation in the informal economy, it is necessary to first have an operational definition of the informal economy. The term "informal economy" was not used in the past in the countries with centrally planned economies. The so-called socialist sector, based on the state or cooperative form of ownership, was considered to be the main (and in some cases the only) component of the national economy. With the exception of Poland, the role of the private sector was sharply reduced and in some countries the private sector practically did not exist.

I. With the deepening economic crisis, the spread of political liberalization and the introduction of economic reforms, various traditional and new forms of gainful economic activities emerged in the individual countries. These activities, which were partly semi-legal or illegal, were described as the "second" or "shadow" economy.

The Hungarian reform economists should take the credit for the introduction and dissemination of this phrase. However, the actual content of the term "shadow economy" varied from author to author. In the prevalent conception, the term includes all economic activities which are beyond state control, including the concealed forms of functioning of the formal economy. It should be noted that this phenomenon was specific to the former socialist economies so that the concept is not transferable to other social and economic systems.

II. Accepting an internationally valid definition is not possible, because the concept of the informal economy is still subject to international controversies over its correct definition.

III. The vagueness of definitions currently in use can be illustrated using two recent examples. The following definition was submitted to the International Conference of Labour Statisticians in 1987: "The informal sector consists of small-scale, self-employed activities, with or without hired workers, typically operating with a low level of organization and technology, with the primary objective of generating employment and incomes for their participants: to the extent these activities are carried out without formal approval from the authorities and escape the administrative machinery responsible for enforcing tax and minimum wage legislation and other similar instruments concerning fiscal matters and conditions of work, they are concealed." (Employment in the Informal Sector (1987), p.100). Regardless of the further properties considered in this definition, it incorporates the informal economy in the sphere of market-oriented production.

IV. On the other hand, many authors (for example R. Luttikhuizen and J. Oudhof (1987), p.4) define informal labour as "the total of all productive activities that either generate "monetary rewards" that are fiscally concealed or are non-monetarily rewarded forms of productive activity". This definition includes all unpaid labour but it excludes registered forms of own account activities.

It would be possible to find many similar conflicting definitions in discussions on the informal economy. In its aim of finding an operational starting point which could be used in statistical practice, the United Nations Statistical Commission proposed in 1989 to delimit the informal sector for statistical purposes "on the basis of own account work without regular employees" (Demographic Social and Environmental Statistics (1989), p.27). However, this solution is not considered to be final either.

As was stated in the Joint Report of the International Research and Training Institute for the Advancement of Women (INSTRAW) and the United Nations Statistical Division at the Conference of European Statisticians in 1989, "...there has been both an ample literature which makes reference to the informal sector and many efforts to have a clear-cut definition capable of referring to the phenomenon in all its heterogeneity and being useful to the various types of data users". Nevertheless "the defining criterion still remains elusive and there does not exist today a clear agreement on an international definition which can be applied in a variety of conditions" (Measuring Women's Work (1989), p.17).

The cause of these unsolved (and in my opinion even insoluble) definitional problems lies in the effort to include widely varying socio-economic phenomena in a uniform conceptual structure; these phenomena are seemingly similar but in reality they belong to different socioeconomic contexts and have different social and economic meanings. Several centuries of mankind's social time lie between the African vendor of home-made baskets and the professional providing managerial services via international electronic networks. A definition which is economically and socially relevant at one time and in one country, may be irrelevant elsewhere and at some other time.

This is illustrated by the change in meaning of the criterion "number of paid employees" in the countries of the former socialist bloc. As long as the reigning ideology considered private property as an instrument of exploitation of labour power, self-employment was socially acceptable, whereas the engagement of only one paid employee involved crossing into illegality. With the legalization of private enterprise, the dividing line between no employee and one employee lost much of its meaning. For instance, in Czechoslovakia the engagement of 25 employees has become the socially relevant boundary, as the enterprise is then exposed to stricter fiscal control.

The link between the level of economic development and the forms of economic activities enlarges the basis of applicability of universal definitions. In my opinion, however, one cannot presuppose that it will currently be possible to find one generally acceptable dividing line between the formal and informal sectors of the national economy. These concepts will require specific modifications when applied to the countries formerly with centrally planned economies, both when describing past developments and in analysing the present situation.

### (ii) Central and east European modifications

The period of transition to a new political and economic order in central and eastern Europe has only just begun, and the new forms of social and economic life are still immature and unstable. There are considerable differences in the tempo and form of the transformation process between the individual countries of the region. Any attempt to define the "informal economy" - which should, moreover, only be applied to the past situation must therefore proceed from the present structure of economic activities, even at the risk that its validity will be limited both from the point of time and place.

The reference framework is formed by the complex of productive activities denoted as "labour in the broad sense of the word" in the terminology of these countries.<sup>1</sup>

The following criteria are important for the internal classification of the complex of productive activities in the countries formerly with centrally planned economies:

- 1. The form of ownership: formerly the state, cooperative, private and personal sector; gradually, also, mixed, public, community, etc., sector;
- 2. The form of labour participation: main or additional paid employment, membership employment, self-employment, own account work;
- 3. The form of labour remuneration: money, in-kind, own consumption, none;
- 4. The level of state control: high, medium, low, none.

Apart from these criteria, the distinction between "productive" and "unproductive" labour - on which the branch structure of the national economies and all macroeconomic balances were based - was very frequent. This distinction should now disappear with the transition to a market economy and to standard world definitions. These concepts are not necessary to describe the informal economy and for this reason we will not deal with them here.

Other criteria considered in discussions of the concept of the informal economy are either of secondary significance or are, in central and east European countries, associated with those mentioned above. For instance, the levels of legal, fiscal and statistical coverage are interlinked and are all part of the system of state regulation. The size of an enterprise was associated with the form of ownership. The private sector consisted almost exclusively of smallscale economic activities and this will only change after widespread privatization and the entry of private capital.

Illegal forms of enterprise can be found in all ownership sectors. For this reason, the use of legality as a criterion for differentiating the basic structural elements of the national economy is not appropriate.

<sup>1</sup> "The third person criterion" has not been used here. With the exception of certain marginal activities (e.g. personal care) the working definition of which would provoke confusion, both definitions overlap. For activities involved in the productive complex there are no significant differences between the two definitions.

Figure 1 characterizes the structure of productive activities in the countries formerly with centrally planned economies on the basis of individual ownership sectors. This structure is very rudimentary and one cannot eliminate the fact that certain transitory forms of economic activity will not find unambiguous positions in it. However, it is adequate for the current purpose.

The complex of productive activities in this structure falls into three parts and each have their own significance and regularities of functioning:

- 1. The first boundary line differentiates unpaid work from market-oriented (paid) work. Market-oriented production implies the division of labour and the exchange of its products and represents a historically higher form of productive activity. Unpaid work includes those activities which are oriented towards self-help or towards the production of new goods for individual households. We can designate this sector as the "household economy".
- At the opposite pole there is a group of market-2 oriented activities which are more or less subject to systematic state control (legislative, fiscal, statistical and the like). The boundary depends on the degree of organization of society and on the production process and on the conception and effectiveness of state policy and administration. It will therefore be different in different countries as well as at different times; however, historically speaking, the range of activities subject to State regulation has tended to increase over time. In the countries formerly with centrally planned economies the enterprises of the State and cooperative sector, the re-defined public sector, the communal sector, the mixed sector and part of the newly-formed private sector (medium-size and large enterprises) belong in this category, which we will designate the "formal economy". Small businesses will probably tend toward this sector if it finds more advantageous business conditions there.
- 3. The sphere between the formal and household economies, which we will call the "informal sector", is formed by small-scale market-oriented economic activities which are performed by the household as an economic unit or by the individual on his own account, with limited or non-existent controls. From the historical viewpoint, certain traditional economic activities belong here, some of which have managed to adapt themselves to a modern economy. For example, family farming, handicrafts and the new forms of enterprises which are not controlled by the State (either because the expenses would exceed the yields to the State or because the State has not yet set up the relevant control systems).

In the countries of central and eastern Europe the following activities are likely to belong to the informal sector in the transition period:

• Family farms and other forms of market-oriented household agricultural production;

- Small private businesses with or without a small number of employees;
- Other gainful activities performed by individuals or households on their own account;
- Small-scale forms of group/cooperative/enterprise, and the like.

Those productive activities which are performed on the basis of a (long-term or short-term) wage agreement with a formal organization should be regarded as typical forms of participation in the formal economy.

In countries with full employment it is not suitable to conceive the informal sector as employment-generating since gainful informal activities are usually performed parallel with paid employment. Restricting the informal sector to the urban environment, to manual labour with low productivity or to activities carried out in dwellings would also lead to a misleadingly narrow definition. These characteristics do not concern all informal activities but only some of them.

In comparison with the concepts of the "second" and "shadow" economy, the concept of "informal economy" interpreted in this way is narrower (it does not include household production for own use or the concealed forms of formal economic activities), more neutral and more precise, though there is still considerable uncertainty in the definition of borderline cases.

The concept of the second economy fulfilled at least two important functions in the economic theory of the centrally planned economy: firstly, it indicated the conflict between the ideological view of the nature of economic activities and the reality of economic life and, secondly, it drew attention to the complexity of and the links between different forms of economic activities. In its first function it is irreplaceable. However, the second function can also be performed by the concept of the informal economy.

The formal economy is that component of the national economy which plays the major role in determining the level of the country's economic advancement and the direction of its economic growth. The functioning of the formal economy is, however, affected by the existence of informal and household productive activities which produce goods and services not produced by the formal economy and fulfil other functions which help the overall functioning of the economy. If one neglects the economic significance of the informal and household economies, then one obtains a misleadingly low estimate of the country's economic level and of the economic role of those who participate in informal activities. In addition, it is impossible to understand how the national economy functions and what barriers it faces if the informal economy is excluded.

# (iii) Economic evaluation and time use

In order to compare the importance of individual components of the national economy, we need to find

statistics which measure the economic value of the informal and household economies. However, because there is no reliable information either on final products or the use of production factors, we can only make qualified estimates.

In principle, there are two possible approaches: the first proceeds from the result, or output, of these activities, the second from their inputs. While the so-called "output approach" requires comprehensive data on the type, quality and quantity of services rendered, and goods produced in households (which is extraordinarily difficult to obtain in practice), the "input approach" proceeds from the expenditure required for the production of goods and services, which can be measured relatively easily using the information contained in time-use studies (H. Lutzel (1989)). Although the time indicator is not able to capture differences in the intensity and productivity of labour, as it expresses only the consumption of human life capacity, it is the only available universal measure of human activity.

One then obtains an estimate of the economic value of working-time, most often by using the wage for comparable work. According to the proposal by L. Goldschmidt-Clermont (1989), the value of "returns to labour" should be obtained from detailed sample surveys. When one takes into account estimates of intermediate and capital consumption, one can obtain an estimate of the economic value of the contribution of informal and household production activity to the household (foregone expenses) and to the community (additional value added).

In the specific conditions of central and eastern European countries, this valuation procedure seems to involve so many difficulties and so many inaccuracies that it is sensible to ask whether it is worthwhile attempting these calculations. The following problems illustrate some of the difficulties: firstly, in these countries one cannot use the wages of domestic servants as a wage equivalent, since this group does not exist. There are data, however, on the average wage per hour in paid employment in various occupations; but the question remains of how to identify the qualification level of the individual working in a household. In addition, there is the question of the wage equivalent that should be chosen for women, given the consistent undervaluation of women's wages in the formal economy. Using the average wages of comparable groups of women, would transfer wage discrimination into the sphere of non-paid work, while the use of the "male" wage equivalent would overvalue their economic contribution.

The quantification of the economic contribution of informal and unpaid work is particularly important for women who perform the bulk of their economic activity in the household economy. In fact, for many purposes, time data alone would be sufficient for the evaluation of women's working participation.

# 3. Recent time use data and women's economic role

#### (i) Data and methods

In the countries of central and eastern Europe time use surveys are now well-established. Some of these countries, particularly the USSR, Hungary and Bulgaria, contributed significantly to the creation, development and standardization of time-use methodology. Thanks to the help of members of the International Association for Time-Use Research, it has been possible to collect basic data from seven representative time use surveys implemented between 1980 and 1987.

These research surveys were organized by national statistical offices or research institutions in response to national interests and problems. The data sets therefore differ not only in when they were carried out but also with respect to many other elements of research design. The most important differences are the following:

- The definition of the population under consideration (in the data from the former GDR, workers in agriculture are not covered; both Soviet research surveys only covered the populations of small towns);
- The length of the registered calendar period (some research surveys cover the whole year but both Soviet research surveys are seasonal, with the survey in Pskov restricted to January and February);
- The classifications of activities; and
- The processing and presentation of results (as the Polish research survey was not analysed separately for the economically-active and non-active population, its results could not be compared with other samples).

The following table (table 4.1) contains basic information on the dates the individual surveys were carried out and on the survey designs.

In the interest of increasing the comparability of the results obtained, two standardization operations were carried out:

- 1. As aggregate social data on time use are strongly influenced by the demographic structure and the share of economically active persons, the time use of economically active men and women was adopted as the basis of comparison;
- 2. The original data were reclassified to make the division of production activities as detailed as possible. Thus "working hobby" and "manual work for the community" were reclassified from "leisure" to "other forms of work". As far as "passive rest" was included in leisure time, it is re-classified here as part of "personal needs". The classification used and main definitional differences contained in it can be found in table 4.2 and its notes.

The Czechoslovak data are used in two versions with the incorporation or exclusion of the agricultural population (table 4.3). As the time use of "an average day" is an abstract construction without any comprehensible social equivalent (it conceals the differences between working days and non-working days), we compare the structure of time use of an average week, expressed in hours.

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#### TABLE 4.1

	Basic information on research surveys under comparison
Bulgaria 1988	One-year investigation, representative nation-wide sample, without age limitation, 9,029 households, 27,604 one-day records, yesterday-interview method.
Czechoslovakia 1979/1980	One-year investigation representative nation-wide sample, age 15-69 years, 16,583 households, 34,871 one-day records, leave-behind-diary method.
German 1985 Democratic Republic	Workers' and employees' households, age of women 16-60, age of men 16-65, family budget statistics sample.
Hungary 1986/1987	One-year investigation representative nation-wide sample, age 15-79 years, 11,000 persons, interviewed 4 times a year, yesterday-interview method.
USSR 1986	January-February, inhabitants of the town Pskov, 2,396 persons, leave-behind-diary method.
Latvian SSR 1987	Winter and summer season, inhabitants of small towns, 1986 one-week records, leave-behind-diary method.
Poland 1984	One-year investigation, age over 18 years, 21,600 households, 45,087 one-day records, family-budget statistics sample, leave-behind-diary method.

Apart from the fine classification of activities an aggregate structure is used, formed by such items as paid work, other work, personal needs and leisure, in which most of the definitional differences are compensated for.

#### (ii) Productive activities in time-use comparison

"Main employment" is the main productive activity of the economically active population. The time it involves fills 26 to 31 per cent of men's available time and 21 to 28 per cent of that of women. The weekly time load moved between 35.9 and 48.3 hours for men and between 30.4 and 43.6 hours for women. The shortest average times related to main employment were recorded by Hungary and Bulgaria, with the longest times recorded in the two Soviet samples and the former GDR.

Comparing the data between countries is made problematic by methodological differences. The raw figures for working time are influenced both by differences in the length and organization of work (length of legal working hours, length of leave, number of holidays, existence of two-day weekends, length of compulsory unpaid intervals, amount of time spent at the workplace in non-working activities and the like) and by differences in time-use survey design. For instance, seasonal research surveys measure a typical work week, while in the one-year surveys the averages are lowered by including further nonworking days. Varying definitions of the economically active population and the like all exert a great influence. As a result, international differences cannot be explained without a deeper knowledge of the situation in the individual countries; and reliable conclusions can only be drawn from the proportions within each country.

Economic analyses require figures for net working time which are only available in certain research surveys: (for instance, in the former GDR, net working time was roughly 80 per cent of the unadjusted values). From the viewpoint of this study two facts are particularly important:

Firstly, in the central and east European countries women form a component of labour power which is comparable to that of men. Compared to men, women work less overtime, take advantage of the possibility of shortened working hours more often, choose jobs with shorter commuting distances and stay at home more frequently to nurse their children. Their average work load in main employment however does not fall below 85 per cent of men's, with the exception of Bulgaria and Hungary where the situation requires deeper analysis. The Czechoslovak example illustrates the fact that in the countries of central and eastern Europe, workloads are not lower for women with a higher number of children. Only households with children of pre-school age are an exception. The daily time related to main employment for economically-active childless women in Czechoslovakia amounted to 8.2 hours on working days. In the case of women with three children, at least one of whom is younger than six years, it fell only to 7.7 hours; and women with three older children had the same working hours as childless women.

Secondly, other forms of paid work were defined in different ways in the research surveys under comparison, and the data obtained are difficult to compare. The content of this group of activities is also not identical with the concept of informal work, as it includes the second job in the formal sector as well. On the other hand, with the exception of Bulgaria, it does not contain the time used for market-oriented household agricultural production. The reliability of the identification of other paid work is also reduced by the problematic legal status of the activity.

Even after noting these reservations, the time use data make it possible for us to state that non-agricultural forms of additional gainful activities are marginal in the spectrum of performed activities. Only a small part of the population participated in them and, for certain samples, the average

	Bulga W agric	ria 1988 vith culture	CSS agri	SR 1980 with iculture	CS1 w agr	SR 1980 ithout iculture	GI V ag	DR 1985 without riculture	2	Hungary wit agricu	v 1986 h lture	USSR middla popu	l 1986 e-town lation	Latvia middle popul	1987 e-town ation
Activities	Men	Women	Men	Women	Men	Women	Men	Women	Men	Wom	en Men	Wom	en Men	Wome	n
Main employment	39.1	32.2	43.2	38.0	42.8	37.9	46.	.1 37	.9	35.9	30.4	48.3	43.6	47.6	40.5
Commuting to/from work Other paid work	5.2 <sup>a</sup> 2.7	3.9 1.6	5.5 ° 0.5	4.3 0.1	5.6 ° 0.5	4.3 0.1	4. 0.	.6 3 .6 0	.7 .2	5.8 1.9	4.2 0.6	5.2 0.1	4.1 0.2	4.5 0.3	3.5 0.2
Total paid work	47.0	37.7	49.2	42.4	. 48.9	42.3	51.	.3 41	.8	43.6	35.2	53.6	47.9	52.4	44.2
Shopping, services errands Children's care	1.8 0.3	2.1 3.1	1.7 1.0	4.0 2.5	1.8 1.0	4.1 2.5	1.	.6 3	.6	<sup>j</sup> 2.1 0.7	3.7 1.8	3.6 1.0	5.7 2.4	2.3 1.1	5.0 2.4
Children's upbringing Adults' care	0.7 b_	1.2	0.4 b_	0.6	0.4 b	0.6	<sup>k</sup> 1.	5 <sup>k</sup> 4 1 0	.1 .3	1.1 0.1	1.4 0.2	<sup>g</sup> 2.8 -	2.9	1.4 ª_	1.4
Cooking, dishwashing Laundry, ironing	1.3 0.2	10.7 7.6	1.6 0.2	12.6 4.8	1.7 0.2	12.3 4.7	1. 0.	9 8 5 5	.2 .6	1.3 0.1	11.2 4.3	3.0 0.3	9.2 3.6	1.3 0.3	8.3 2.8
Cleaning home Maintenance, repairs of	1.3 b_	4.6	1.3 2.9	4.5 0.2	1.3 2.9	4.5 0.2	1. 4.	2 5 6 0	.1 .5	1.6 2.5	4.7 0.3	0.9 <sup>h</sup> 0.8	2.4 0.1	0.6 3.1	3.2 0.2
home, appliances, cars Household non-agricultural	b _	-	0.9	0.1	0.9	0.1	0.	2 2	.2	1.3	0.7	i_	-	i _	-
Household agricultural production	3.9	2.4	4.0	2.0	3.6	1.6	6.	4 3	.1	7.8	4.8	0.3	0.1	3.7	3.9
Hobby work	° _	-	1.5	1.8	1.6	1.8	f	-	-	0.1	1.4	0.1	1.8	f _	-
Other household tasks Unpaid work for community	5.9 d_	2.0	1.6 0.3	- 0.8	1.6 0.3	0.8 0.1	1. d	2 1.	-	1.6 d_	0.6	1.8 0.4	0.8 0.4	4.2 d_	2.6
Total other forms of work	15.4	33.7	17.4	33.9	17.3	33.3	19.	2 33.	.7	20.3	35.1	15.0	29.4	18.0	29.8
Total workload	62.4	71.4	66.6	76.3	66.2	75.6	70.	5 75.	.5	63.9	70.3	68.6	77.3	70.4	74.0
Meals	7.7	7.0	7.7	7.0	7.7	7.0	8.	1 8.	.3	9.7	9.2	5.3	5.2	6.3	6.4
Personal, medical care	6.2	6.1	6.4	6.7	6.4	6.8	5.	7 6	.4	6.9	6.7	6.0	6.6	5.1	5.4
Relaxation	1.9	1.6	1.7	1.1	1.7	1.1	1.	2 1.	.1	1.5	1.3	2.6	1.8	0.7	0.6
Sleep	56.9	56.2	53.8	53.7	53.8	53.8	55.	3 56.	.1	57.0	57.6	54.5	55.3	54.9	55.4
Personal needs Leisure (narrow definition)	72.7 32.9	70.9 25.7	69.6 31.8	68.5 23.2	69.6 32.2	68.7 23.7	70. 27.	2 20.	.9	75.1 29.0	74.8 22.9	68.4 31.0	68.9 21.8	67.0 30.6	26.2

TABLE 4.2

# Time use of employed men and women

(Hours per week)

<sup>a</sup> Market-oriented auxiliary farming included.

<sup>b</sup> Included in "Other household tasks".

<sup>c</sup> Not defined, partly included in "Other household tasks", partly in "Leisure".

d Included in "Leisure".

e Second job included.

f Not defined.

value of time spent at the level of a single measurement unit only, i.e. one minute a day. Weekly time spent in "other paid work" was highest - at approximately two hours - in Bulgaria and Hungary. Infrequency and low average length of time explain why greater attention has not been paid to this group of activities in representative time use research surveys so far.

Participation in other forms of paid work is higher for housewives, students and younger pensioners where it is a source of supplementary income. Even in these groups it does not influence the structure of time use in a more substantial way. The share of employed women in additional forms of paid work is minimal. <sup>g</sup> Leisure activities included.

<sup>h</sup> Repairs of cars included in "Other household tasks".

<sup>i</sup> Included in "Hobby work".

<sup>j</sup> Estimated from total commuting according to proportions in the CSSR.

k Child-care and upbringing of children: one category

The significant expansion of other forms of paid work in the countries formerly with centrally planned economies has only recently taken place; and concurrently with the changed economic and political climate, private enterprise has been legalized and unemployment has emerged. However, it will only be possible to investigate the effects of these processes in future time-use surveys.

Unpaid work has much greater weight in the structure of time use. For employed women, unpaid work is often called "the second work shift" for just this reason. In the samples under comparison - with the exception of the USSR - it amounted to between 33 and 35 hours per week. The lower figures in both Soviet samples are not caused by

#### TABLE 4.3

Time use of employed men and women in some countries with centrally planned economies (Percentages)

		Paid work	Other work	Leisure	Personal needs
					10.0
Bulgaria	Men	28.0	9.2	19.5	43.3
with agriculture	Women	22.4	20.1	15.3	42.2
Czechoslovakia	Men	29.3	10.4	18.9	41.4
with agriculture	Women	25.2	20.2	13.8	40.8
Crashaalauakia	Mar	20.1	10.2	10.2	41.4
Czechoslovakia	ivien	29.1	10.5	19.2	41.4
without agriculture	Women	25.2	19.8	14.1	40.9
GDR	Men	30.5	11.5	16.2	41.8
without agriculture	Women	24.9	20.1	12.2	42.8
			10.1		
Hungary	Men	26.0	12.1	17.2	44.7
with agriculture	Women	21.0	20.9	13.6	44.5
USSR - Pskov	Men	31.9	8.9	18.5	40.7
middle-town	Women	28.5	17.5	13.0	41.0
USSR - Latvia	Men	31.2	10.7	18.2	39.9
middle-town	Women	26.3	17.8	15.6	40.3

a different organization of the household economy but are a negative reaction to the length of time spent in paid employment, which does not leave time for household work.

Long-term comparisons indicate that men's share in unpaid household work is increasing gradually over time. However, their share is still much lower than women's and is concentrated in certain kinds of activities. The highest level of equality of both sexes in unpaid work was reached in Hungary and in the former GDR where employed women spent 1.7 times longer than employed men in unpaid work. The highest absolute and relative differences occur in Bulgaria where employed women spend twice as much time in unpaid work as do employed men. Differences in the level of economic advancement, in the organization of economic life and the consequences of the different status of women in the individual national cultures are all important here.

Unpaid work is usually classified in these surveys into a number of concrete items, according to the subject of activity. In order to unify the classifications for the whole economy it is - in my opinion - appropriate to divide household work into two groups. The first will include those activities which belong in the sphere of services (if they were performed by a third person or an institution). The term "household self-service" is suitable for these activities. The remaining activities aim at the production of new values and they should be classified as the "household production of new goods". This differentiation is useful because it reduces the range of activities among which it is necessary to look for informal market-oriented activities. The activities of household self-service are well documented and analysed in the present time-use surveys. The classifications used are closely related and the results are comparable, at least for the main activities.

The preparation of meals, almost exclusively a task carried out by women, is the activity which demands the most time. The least amount of time given to it in our samples was 8.2 hours per week by women in the GDR, whereas Czechoslovak women spent the longest time preparing meals (12.6 hours). These differences are not caused by differences in the technical equipment available or in the ease of obtaining foodstuffs, as these two factors were comparable in both countries. This illustrates the role of different habits of taking meals and varying cultural traditions in generating international differences in time use. Country women and housewives spend considerably more time on cooking. The share of men in the preparation of meals was the highest in Pskov; it is difficult to judge without further analysis the extent to which cooperation is due to women's lack of time.

There is considerable variation in the samples, which cannot be explained in a simple way. Time spent in these activities does not seem to depend directly on the level of the household's technical equipment, the size of the housing fund and the like. Time spent on cleaning varied between countries with a comparable and relatively high level of technical equipment (the former GDR and Czechoslovakia), while in the USSR it was below average, probably due to a lower economic level and a low quality of habitation.

The high proportion of children attending pre-school facilities is a feature of the countries formerly with centrally planned economies; and the number of ill and disabled persons cared for by families is relatively low because of women's high employment rate and the small size of dwellings. Thus, the share of time for child care and for adult care in the populations's average time use is also reduced. The differences between countries are small and are partly influenced by different methodological approaches to the differentiation of productive and leisure elements of children's education. In those households caring for young children or handicapped adults, these activities move to second place in domestic duties from the viewpoint of time consumption.

The lack of capacity as well as the low quality and the high price of paid services all force households to perform most activities related to the repair and maintenance of housing and household durables themselves. In contrast to other self-service household activities, these activities are almost exclusively performed by men, and the share of women in them is minimal. The differences found between the samples under investigation are mainly due to the possession of personal cars or holiday cottages.

Shopping and other errands vary considerably. Both the shortest and the longest shopping times were found in countries where markets were disintegrating at the time of the surveys. The estimate of time consumption for this activity is problematic because it varies with differences in the measurement of commuting times.

Time use surveys present a less reliable picture of household production of new goods, be it for their own consumption, for the market or for barter.

Differentiating between market and non-market elements of productive activities is difficult. This is particularly true for agricultural production where it is not possible to estimate the resulting product in a reliable way or to assess how much will be consumed in the household and how much will go to the market. The boundary between self-service and the production of new goods is, however, comprehensible and their differentiation is a matter of the national classification used and the precision of description of the respective activity in the time diary. The individual surveys differ considerably in their approaches and the time data obtained are therefore not very comparable.

It is, nevertheless, possible to conclude from the available information that household production of new goods is considerable. In a situation of limited income, it decreases expenditure, increases consumption and releases financial means for other consumption aims. In situations of shortage, it sometimes represents the only way to acquire certain goods (e.g. housing). In Hungary, where these productive activities have a long-standing tradition and societal support, the time consumption for them reaches 15 per cent of the total work load and 10 per cent in Czechoslovakia. Women's share in these productive activities is lower than that of men but is not insignificant. In Hungary it reached 75 per cent and in Czechoslovakia 61 per cent of men's.

The most widespread activity is the home production of foodstuffs in which - apart from financial motives - the guarantee of safety from the hygienic point of view as well as a hobby motivation may be important. The home production of foodstuffs is increasing in all social and professional groups, including persons with the highest level of education and even among the urban population. The only limiting factor is the availability of land. Marketoriented household agricultural production is concentrated in the country but mainly takes the form of auxiliary farming, performed simultaneously with paid employment.

Women participate in the production of new goods particularly through the production of clothing and fashion accessories. Here the economic and self-realization motives are also linked; for this reason these activities are sometimes denoted as hobby-work and classified as leisure activities.

From the viewpoint of social consequences, the selfhelp construction of habitation and recreational properties is the most problematic activity. This activity involves only small groups of inhabitants but their time load is extremely high and leads to basic life functions absorbing all the rest of their time. The household production of new goods is the second time item in the present investigations in which informal economic activities are concealed. It is necessary to create conditions in subsequent research surveys for their identification. However, it is possible to say even here that the average share of market elements does not predominate and that productive activities oriented towards direct household consumption tend to be more important.

International comparisons have shown that the aggregate work-load of the economically active population in the countries of central and eastern Europe is considerably higher than that of working people in advanced west European countries. Given the low efficiency of production an acceptable standard of consumption could only be reached through a high input of working time. The work overload results in the reduction of time used for the satisfaction of personal needs (the average length of sleep only reached eight hours per day in certain countries), and also in a reduction of time spent in active rest, amusement and in physical and mental development. The general growth of leisure, which had been declared as one of the main social aims by the countries with centrally planned economies, has remained unattainable.

The situation in the various countries is similar, in spite of a number of partial differences. Differences between countries are smaller than the differences in men's and women's time use within individual countries.

(iii) The economic role of women and time use

The economic role of women in the countries of the former socialist bloc is primarily defined by their participation in the formal economy. A woman of productive age who is not attending school, is not caring for a child below the age of three years and is not ill was legislatively, economically and morally compelled to enter employment. Society facilitated this step for her by providing sufficient job opportunities, ensuring the availability of general and vocational education, and by creating sufficient children's pre-school establishments. Economic pressure was exerted by the fact that a family was not able to reach an average consumption standard without two incomes.

Women's rate of employment in all central and eastern European countries has been at the attainable maximum for many years. The proportion of women among the employees of the state and cooperative sector in 1987 ranged between 44.7 per cent in Poland and 50.9 per cent in the USSR (Statisticheskij Yezhegodnik (1988)). Today's women of productive age belong to a generation which has adapted itself to this situation and most of them appreciate its emancipatory effects. However, a high price has been paid for this emancipation, both by women and by society as a whole. The price paid by women has been in lifelong stress and reduced life potential. A woman in central and eastern Europe is socially defined by the fact that she is "a working woman". The social cost was the need to maintain artificial over-employment, the threat to demographic development and the deterioration of the new generation's education.

The promises that society would ease the burden of women's dual working role by transferring a great part of domestic work to paid services proved to be illusory due to the low efficiency of the economy. With the exception of care for young children, where the state was forced to build the respective facilities in order to increase women's employment, an employed woman had also to carry out all the other productive activities needed for the life of her family. There were practically no alternative possibilities of paid help. Although men's participation in traditional household work is increasing, particularly in the more educated strata and in towns, the distribution of the workload continues to be very uneven. The aggregate weekly work-load of employed women ranged from 71.4 hours in Bulgaria to 77.3 hours in Pskov in the Soviet Union. This is higher than the time used for personal needs. The amount of leisure time is much lower than in advanced western countries.

Non-employed women also participate to a considerable extent in productive activities, particularly unpaid work. The volume of unpaid work carried out by non-employed women is roughly double that done by employed women (in the former GDR 1.8 times higher, in Czechoslovakia 2.0 times higher). This extra time is taken up by longer periods of child care (table 4.5). In addition to using more time-consuming and less expensive domestic work methods, a reduction in men's participation and a lower work intensity probably also play a role here. The total workload of non-employed women thus approaches that of employed women (housewives' total workload was 84 per cent of that of employed women in the former GDR and 87 per cent in Czechoslovakia).

The representative one-year investigations make it possible to estimate society's structure of time use and the way in which the different groups of the population participate in its individual components. The Czechoslovak example shows (table 4.4) that, of the total volume of paid work, 56 per cent falls to men (52 per cent to employed men and 4 per cent to other men); the rest is performed by women. However, in the case of unpaid work the larger part (71 per cent) is carried out by women, with 37 per cent performed by employed women and 34 per cent by housewives and other non-employed women. Only 29 per cent falls to men. As a result of these imbalances, the total workload is distributed as follows: 56 per cent falls to women (38 per cent to employed women, 18 per cent to non-employed women) and 44 per cent to men (38 per cent to employed men and 6 per cent to nonemployed men).

Although estimates in other countries will probably be somewhat different, the basic proportions should remain the same. In the countries of central and eastern Europe women spend more time and energy in securing the material conditions of life for the whole society as well as for their individual households than men do. At the same time, the time spent by women in paid and unpaid work is almost equivalent. It is not possible to evaluate women's economic role without taking into account these vital nonmarket activities. One only needs to imagine the extra capacity needed if the population were to take all its meals outside home or if all goods were to be delivered to the place of consumption, to realize the extent of women's hidden economic contribution.

In the past, informal paid work in the countries with centrally planned economies was marginal in frequency and time consumption.<sup>2</sup> Its existence was known and its economic significance was appreciated, but it was not covered by statistical or other reliable information. The economic transformation which is occurring in the transition to a market economy will rapidly increase the size of the informal economy. One can also assume that women's share in the informal economy will increase. For this reason, it would be desirable to improve the methods used to measure the informal economy.

# 4. Challenges for developing time-budget methodology

# (i) Reorientation from leisure to work

The comparison of recent time-use data from the countries of central and eastern Europe in the last section has led to two methodological conclusions:

Firstly, time use data are an effective means of describing the complex of productive activities, particularly if such data are supplemented by specialized research surveys on the volume and quality of products. If we are mainly interested in the rate of utilization of social working capacity, then time data alone would be sufficient.

In order to utilize effectively time use data in international comparisons without requiring much extra (and difficult) work, research design should be made more nation-wide comparable, particularly in large representative research surveys. In this respect one could take advantage of the experience gained by the international scientific community which has been collected together by the International Association for Time Use Research. In the sixties, an important role in the standardization and dissemination of the time-budget technique was played by the international comparative project, headed by A. Szalai under the auspices of the Vienna Centre. An analogous coordinated research project on small samples would be necessary for a further elaboration of the methodology of time-use research in the sphere of productive activities and particularly for measuring participation in the informal economy.

<sup>&</sup>lt;sup>2</sup> Some isolated cases provide exceptions. For example, Poland and Hungary are exceptions in the group of countries, as are certain groups of craftsmen and parts of the rural population among social groups.

TABLE	4.4	
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Structure of the aggregate workload in Czechoslovakia (Percentages)

	Time related to paid work	Household and domestic work	Total workload
Employed Men	52	22	38
Non-Employed Men	4	7	6
Employed Women	39	37	38
Non-Employed Women	5	34	18
Total	100	100	100

Secondly, present time-use surveys - and not only those carried out in central and eastern Europe - differ in the sensitivity of their descriptions of productive activities. In certain countries, particularly in the former GDR and the USSR, it was possible to gain additional information from a more subtle analysis of participation in the formal economy. In Hungary, the possibility of a very detailed description of other forms of work was verified. In Bulgaria there is additional information available from the study of children's time use. In summary, present methodological approaches are not well adapted to the task of measuring the economic contribution of the informal and household economies.

No fundamental change of basic time-use concepts is required for the new task, but a shift of interest from one group of activities to another is needed. Changes in the classification of activities are required and a research design should be modified to increase the likelihood of obtaining a representative illustration of atypical forms of productive activities and their performers. This is a longterm task which presupposes the linkage of theoretical and empirical work and, if possible, a joint effort in economics, sociology and economic statistics.

# (ii) Development of research design

As a result of the intensive international exchange of experience, the basic elements of time-budget research have gradually emerged. The advantages or disadvantages of different alternative solutions are known and they form

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Structure of the total workload of different groups of women in Czechoslovakia in 1980

(Hours per week)

	Employed women			Non-employed women		
	Manual	Intellectual	Agricultural	Housewives	Pensioners	Students / Apprentices
Total time related to paid work	43.2	41.5	42.6	0.3	0.2	40.9
Shopping, service errands	4.3	3.8	3.2	5.7	6.1	2.4
Children's care	2.3	2.7	2.1	13.0	1.0	0.4
Children's upbringing	0.5	0.7	0.6	0.9	0.1	· · · -
Cooking, dishwashing	13.1	11.7	15.6	22.1	20.2	4.6
Laundering, ironing	4.9	4.6	5.1	8.6	5.4	1.5
Cleaning inside/outside home	4.5	4.4	4.6	7.0	6.2	3.4
Maintenance, repairs of home, appliances, cars	0.1	0.2	0.2	0.2	0.2	0.1
Household non-agricultural production	0.1	0.1	0.1	-	. <del>.</del>	
Household agricultural production	2.2	0.9	6.9	4.8	6.8	0.6
Hobby work	1.8	1.9	1.5	2.7	4.3	1.4
Other household tasks	0.8	0.8	0.7	1.3	2.7	1.1
Unpaid work for community	-	0.1	-	-	0.1	0.3
Total time in other forms of work	34.6	31.9	40.6	66.3	53.1	15.8
Total Workload	77.8	73.4	83.2	66.6	53.3	56.7

Source: Federal Statistical Office of the CSSR.

Figures recalculated and restructured by author.

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the core of future applications (e.g. forms of time diaries, ways of contact with the respondent, and the like).

However, certain elements of research design are more sensitive to the particular aims and to the theoretical approach adopted. The shift of interest to productive activities will, for instance, influence:

# (a) The choice of the population to be studied

In order to obtain a sufficiently representative picture of participation in the formal and household economy, we need not exert an extraordinary effort to select a representative sample; these forms of activity are very frequent and occur in standard patterns. However, informal economic activities are unequally distributed in the population, and they have a considerable variability and an atypical time regime. Those who perform informal paid activities are only identifiable with much greater difficulty and this poses considerable problems for field research.

To obtain a satisfactory picture of the complex of productive activities and to determine the significance of its individual elements, relatively large representative samples are needed; they should involve the population at the pre-active age (minimally from 10 years) as well as at the post-active age, and all social and professional groups, and they should definitely include the rural population.

Due to the low frequency of occurrence, the results of *representative* surveys will not, however, provide sufficient information for a deeper analysis of the conditions and extent of informal work. For this reason, it would be useful to relate representative research surveys with parallel studies of population groups with a higher probable involvement in the informal economy or, if this is not possible, at least to overestimate these groups in the construction of research samples;

#### (b) The choice of calendar interval

Paid employment has - with the exception of certain professions - a regular weekly rhythm which is interrupted only by leave, holidays or personal problems. Household self-service is regularly performed daily or weekly, and less often in exceptional cases. In contrast, other forms of paid and unpaid work, including informal productive activities, are performed irregularly, with great seasonal fluctuations. According to currently accepted methodological findings, research surveys carried out in the Spring or the Autumn are very close to annual research surveys in their results. However, it is questionable whether this will be true for household production and informal activities as well. Research surveys which are evenly staggered throughout the whole year are more suitable for obtaining a representative picture of the whole range of productive activities.

The one-day record of activities currently used is not adequate for estimates of time consumption in the production of more tangible products. This purpose would be better met by research surveys where a time diary was kept for a period of 1-2 months (or longer). The longer time period would be balanced by a reduction in the detail of classification of non-productive activities. However, this suggestion goes quite beyond present usage and only empirical verification can decide whether it is at all realizable.

# (c) Research content

The shift of focus to productive activities and particularly to the informal economy will also lead to an increase in the detail required in the description of "production" activities.

As far as the time diary itself is concerned, it will probably be sufficient to register primary activities, but with accompanying questions specifying the content of productive activities, the determination of their product, and the like.

The requirements for analytical background information will, however, expand considerably. In addition to current demographic data there must also be sufficient information to differentiate the individual types of productive activities, to estimate their frequency and length in a longer time interval and to understand the motives and incentives for the performance of different activities. Additional information about the use of production factors, qualifications, income sources, etc., would therefore be required.

The relationship between an individual's time use and the household's time use is still unsolved, both from the theoretical and the methodological viewpoints. Many household activities are performed by different members of the household at different times and with varying individual contributions. Attempts to study the parallel time budgets of all members of the household are rare, and we do not know of any successful attempt to elaborate the time-use structures of households. The work-oriented time-use methodology should lead to progress in this respect as well.

# (d) Method of elaborating and presenting research results

Here, the basic requirement is that the statistical data sets used should be set up and published with a sufficiently refined classification of productive activities, and with a sufficiently detailed structure of social and professional groups. One could also use the time-diary records to differentiate the time-use structures of the participants and non-participants in different activities, e.g. in the informal economy. The users of statistical publications would welcome the results of more analytical methods of data presentation and of tabulations.

It would be possible to present further suggestions and some others will result from the empirical link between the time description of an activity and its product. Coordinating the currently dispersed efforts would be a great contribution to programmes in this respect.

## (iii) The classification of productive activities

The main additional requirements for the utilization of time-use surveys in the study of the informal economy are found in the classification of activities. The present classification is only partly satisfactory. The situation differs between different types of productive activities:

The classification of the part of the *productive* activities (which we have designated as *household self-service*) is the least problematic. It involves cooking, dishwashing, laundering, ironing, shoe cleaning, cleaning of the dwellings, maintenance and repairs of dwellings, appliances and cars, children's and adults' care, children's education, shopping, services and errands. At least in the industrialized countries, the individual activities are so distinctive that their classification causes no great problems. If required, they can either be further broken down or aggregated.

The remaining undefined item of this group, designated as "others", covers a quite narrow range of activities in most primary classifications. In the technically less advanced countries, it would be possible to reduce it further by separately distinguishing such activities as provision of water and fuel and/or other specific activities.

In the construction of a modified classification of household self-service activities it is necessary to adopt a position on three remaining problems: the boundary between the working and non-working elements of children's education needs to be clarified; the way of registering commuting times needs to be made uniform; and a decision is required on the consistent application of the "third person criterion" for an eventual reclassification of some of the activities of personal care as productive ones.

In the case of participation in the *formal economy* the solution of classification problems is more complex. In paid employment, it is necessary to standardize the approach to the differentiation of gross and net working time. Whereas the Czechoslovak classification used two classes in paid employment, the classification in the former GDR involved six classes, in Bulgaria and the USSR eight and in Hungary ten classes. Finding the optional level of detail should cause no problems on the basis of this experience.

The separation of net working time is necessary for the comparison of the use of manpower in paid employment with other forms of productive activities.

The scale and method of operational description of the formal economy will depend on the variability of forms of economic activity in the individual countries and on the precise boundary between the formal and informal economies. On present experience it would be useful to identify at least four categories:

- Second employment in the formal sector;
- Irregular forms of work in formal organizations;

- Work participation of the employers and owners, as far as their enterprises are part of the formal economy;
- Unpaid help of family members in household enterprises, as far as they are included in the formal economy.

The last item is disputable and depends on the precise boundary between the sectors.

At the same time, it also indicates a way out of the present definitional jungle concerning the area between the "formal economy" and "household self-service". It is practically impossible to differentiate between the individual elements in a reliable way because of the vagueness of the theoretical definitions and the difficulties of applying them in field investigation. The time budget as a technique of empirical research depends for its precision on the respondent's ability and readiness to describe his or her everyday life in terms corresponding to theoretical constructions.

Assuming that continuing theoretical discussions will lead to a relatively precise identification of the economic units belonging to the informal economy (although perhaps this will vary according to the social situation), it would be possible to break down the identification of informal productive activities into two steps: in the first step, one should identify that type of enterprise which is the source of main or additional income and then class all working activities related to it in the corresponding aggregates. In the case of participation in an informal economic unit the classification of activities could then include, for instance, the following items:

- Paid employment in informal enterprises (if enterprises with paid manpower are part of the informal economy, according to the respective definition);
- Work of the self-employed, the owner of an informal enterprise;
- Unpaid help, cooperation in informal enterprises.

There is a prerequisite in this respect that the identification of the respondent and of the content of the activity should contain the information needed for this classification.

Even in this case, the related definitional problems, particularly for agricultural production, where the content of activity is defined by the product and not by its market or non-market destination, will remain unsolved. In these cases one can only use a qualified estimate based on the respondent's statement.

As long as one has not made more marked progress in the standardization of definitions, one cannot expect more reliable differentiation of gainful activities in time use surveys. Then it would probably suffice, as in certain present research surveys, to use one classification item, i.e.

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"gainful work paid by individuals or households". By separating the market-oriented activities one would keep separate the activity "household production for own use" which can then be further broken down according to the subject of production.

In central and eastern European countries it would suffice to classify the respective activities as household agricultural production (production and conservation of foodstuffs), household production of clothing and fashion accessories, construction of houses, flats and recreational properties, and other production of new goods.

The fact that it does not take into consideration the differences in the significance and function of different productive activities is theoretically a controversial aspect of the last proposal. It classes into one group work which is motivated by economic necessity and that considered a hobby (where costs can be even higher than the yields). There are however certain arguments which justify this aggregation. All these activities are primarily work by their substance, i.e. a transformation of manpower into a new product. The varying mix of economic and selfrealization motives also occurs in paid activities, including main employment. Moreover, the boundary between economic and self-realization motivation varies and it can only be defined (and even this might be difficult) by the respondent himself.

These suggestions concerning the refinement of the classification of productive activities are undoubtedly open to debate; and the way to a satisfactory solution will be laborious and long.

# 5. Summary

The comparison of seven recent time use surveys, carried out in 1980-1987 in the countries formerly with centrally planned economies, has shown that time use data are useful in describing the complex of productive activities and in estimating the individual social group's share in the total volume of work.

#### FIGURE 4.1

Structure of productive activities according to the type of economic unit ownership sector, form of labour participation, labour benefit, level of state control and size

Type of economic unit	Ownership sector	Form of labour participation	Form of labour benefit	Level of control	Size of activity	Structural element of
State Public Community Enterprises	State	Employment	Paid	High	Large Medium	Formal Economy
Cooperative Enterprises	Cooperative Group	Membership Employment	Paid	High Low	Medium Small	Formal Informal Economy
State/ Private Enterprises	Mixed	Employment	Paid	High	Large Medium	Formal Economy
Private Enterprises With Employees	Private	Employment Medium	Paid	High Medium	Large	Formal Informal Economy
Self- Employed Activities	Private	Self- Employment	Paid	Low None	Small	Informal Economy
Household Market Production	Private	Own Account Work	Paid	Low None	Small	Informal Economy
Household Production For Own Use	Personal	Own Account Work	Unpaid	None	Small	Household Economy
Household Self-Service	Personal	Own Account Work	Unpaid	None	Small	Household Economy

In the countries of central and eastern Europe the data presented show that women's share in the aggregate working time of the community is higher than that of men. This is a consequence of women's high rate of employment and of their "second shift" of unpaid household work.

Informal economic activities have not been precisely defined in the present research surveys, and their share can be assessed only approximately. With a few exceptions, this share was very small, though the extent and frequency of participation is higher in certain countries and in certain groups of the population. Women's participation in other forms of paid work is minimal. The boom in informal gainful activities which occurred in the latter half of the eighties will only be covered by later follow-up research surveys.

In order to sharpen our picture of the informal economy, it is necessary to make progress toward the uniformity of definitions; even if this is done in a way which varies with the level of economic development of the countries studied. Certain modifications should also be introduced in time-use research design, particularly in the classification of productive activities. The reconciliation of the methodology of time-use research with the requirements of economic statistics will require the systematic cooperation and coordination of international effort. The best first steps in this respect, would be to carry out an international research survey to compare the extent of the informal economy using smaller samples.

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#### References

- "Analiza bud\_etu czasu ludnosci Polski v latech 1976 i 1984" (Time budget analysis of the population of Poland in 1976 and 1984), *Glowny urzad statystyczny*, 1987, Warszawa.
- R. Andorka, "Recent Changes in Hungarian Society Measured by Social Indicators", Working paper, 1989.
- \_\_\_\_\_, "Time Budgets and their uses", *Annual Review*, Sociol., no.13, 1987.
- V.A. Artemov (1987), Sotisalnoye vremya, Problemy izucheniya i ispolzovaniya (Social time. The problems of research and use), Novosibirsk, Nauka, USSR.
- Dobowy bud\_et czasu mieskancow Polski w 1984 r. (Time budget of the inhabitants of Poland in 1984), Warszawa, Glowny urzad statystyczny, 1985.
- D.I Dumnov, V.M. A.I. Rutgajzer, Shmarov, Byudzhet vremeni naseleniya (Time budget of the population), Moskva, Finansy i statistika, 1984.
- P.A. Eglite, I.B. Zarinsh, Izmeneniya v ispolzovanii vremeni gorodskim naseleniyem Latviyskoy SSR (Changes in the use

of time of the urban population in the Latvian SSR), Izvestiya Akademii Nauk Latviyskoy SSR 7, 1989.

- *Employment in the Informal Sector*, Extract from Fourteenth International Conference of Labour Statisticians, Geneva 1987, ICLS/14/I.
- H. Engels, G. Lippold (1989), Vergleich des Zeitbudgets von Arbeitern und Angestellten in der CSSR und DDR (Comparison of the workers' and employees' time budget in the CSSR and GDR), Berlin, Institut fur Soziologie und Sozialpolitik.
- L. Clermont-Goldschmidt (1989), "Valuing Domestic Activities", Paper submitted by the ILO, Second ECE/INSTRAW Joint Meeting on Statistics of Women, Geneva.
- A.S. Harvey (1989), "Guidelines for Time Use Data Collection", Material presented to the International Association for Time Use Research, Varna, 1989.
- R. Husmanns (1989), Viable Approaches for Measuring Employment in the Information Sector of Developing Countries, ILO, Geneva.
- J. Jílek (1987), Ekonomická statistika pro studijní obor národohospodárské plánování (Economic statistics for the study branch of national economic planning), Praha, SPN.
- R. Luttikhuizen, J. Oudhof (1987), *Informal Economy, a Time Use Approach*, Central bureau voor de statistick, The Netherlands.
- H. Lützel (1989), "Household Production and National Accounts", Report by the FSO of the Federal Republic of Germany, Second ECE/INSTRAW Joint Meeting on Statistics of Women.
- G. Manz, G. Winkler (eds.) (1988), Sozialpolitik (Social Policy), Berlin, Die Wirtschaft, 1988.
- N. Minkov (1989), "Time Budget and the Social Status of the Bulgarian Population", Paper presented to the International Association for Time Use Research, Varna.
- "On the methods of the 1986/1987 Time Budget Way of Life Survey", materials presented to the International Association for Time Use Research, 1988.
- V.D. Patrushev (1966), "Vremya kak ekonomicheskaya kategoriya" ("Time as an economic category"), *Mysl*, Moskva.
  (1987), "Ispolzovaniye sovokupnovo vremeni obschestva" (Use of society's aggregate time), *Mysl*, Moskva,
- Pokazateli ispolzovaniya vremeni zhitelyami goroda (Time-use indicators of the town inhabitants), Mosskva, Institut sotsiologicheskikh isledovanii, 1987.
- P. Sorokin, C. Berger (1939), *Time-Budgets of Human Behaviour*, Cambridge, Mass.

1978.

- Z. Staikov (ed.) (1989), "Time Budget. Preliminary Issue I, II", presented to the International Association for Time Use Research, Varna.
- Statistika bjud etove vremeni trudja ichsja, Statistika, Moskva, 1971.
- Statisticheskii yezhegodnik stran-chlenov SEV 1988, (Statistical yearbook of the member-states of CMEA 1988), Moskva.
- Statistická rocenka CSSR 1988 (Statistical yearbook of the CSSR 1988), Praha, FSÚ CSSR, 1989.
- A. Szalai (1968), "Trends in Contemporary Time Budget Research", in: The Social Sciences: Problems and

Orientations, Studies in the Behavioral Sciences, Mouton, UNESCO 1968.

- A. Szalai (ed.), The Use of Time in Daily Activities of Urban and Suburban Populations in Twelve Countries, The Hague -Paris, Mouton 1972.
- United Nations Statistical Commission, *Demographic, Social and Environment Statistics: Social Statistics and Indicators,* Report to the Secretary-General on the Twenty-Fifth Session, 1989.
- Joint Report of INSTRAW and United Nations Statistical Office, *Measuring Women's Work*, Conference of European Statisticians, 1989.
- J. Vítecková, Zmëny ve zpusobu vyuzité casu obyvatel CSSR v letech 1961-1980 (Changes in the time use of inhabitants in the CZAR from 1961-1980), Sociologický casopis, 5/1985.
- Výsledky výberového setrení o vyuzití casu v roce 1979/1980 v CSSR (The results of a selective survey on time use in 1979/1980 in the CSSR), Federální Statistický Úrad CSSR 1981.

# Chapter 5

# SUMMARY AND CONCLUSIONS

### by Iiris Niemi

The economic role of women was ignored as long as women's main workload was in the home and women's long working hours were hidden even though their work had considerable economic value for individual households.

The increasing participation of women in the labour force has now made one aspect of women's work visible. Hours worked in gainful employment are regularly measured by labour force surveys in most ECE countries but the large amount of work women do in households is still largely hidden. Measuring these activities is much more complicated than is measuring work outside the home.

Work at home is made up of overlapping and irregular activities. Paid work at home or household work do not stand out clearly from each other or from other uses of time. This means that women's work at home does not consist of clear-cut episodes which are easily measurable. As a consequence it is difficult to present women's everyday life in figures. The method of measurement should be in accord with the nature of daily life and therefore we need a survey technique which can capture activities which are typically irregular and of short duration. This is one reason for using the time diary method. This technique is most suitable for capturing the variety of everyday life. People write in the diaries in sequential order or tell an interviewer what they have done during a day. These verbal answers are coded afterwards according to activity lists. Based on these data, the time spent for different purposes is summed up.

Time-use studies provide a rich source of data on people's everyday lives. We see how much time is spent on paid and household work as well as on different free time activities and physiological needs (sleep and eating etc.). We can also analyse which activities are performed simultaneously with others, as well as studying the location of activities (whether at home or outside the home etc.) and describing how much time is spent with family members or friends. Studying the 24 hours of the day together automatically introduces a sensitivity in exploring changes as time removed from one activity is necessarily transferred to other activities.

Time-use studies have been carried out in most ECE countries and provide valuable data for historical and

cross-national comparisons. The Multinational Longitudinal Time Budget Archive at the University of Bath now provides a good basis for international comparisons.

This current publication consists of four studies written by experts in time-use research. Iiris Niemi gives an overview of time-use changes in industrial countries since the 1920s, with a comparative viewpoint on women's and men's time use. The data are based on time-use survey reports from different countries. Jonathan Gershuny's focus is on women's economic activity and he uses as material ILO statistics and, especially, the Multinational Archive for which he is responsible.

Susan Lingsom has also made a special analysis of data in this Archive, focusing on women's life cycle and its effects on women's time use. Jana Viteckova is a specialist in time-use studies made in eastern and central European countries. Her main focus is on work in the informal and household economies.

Niemi gives an overview of women's time use compared with that of men. It is possible to analyse trends in changes because time-use studies have been carried out using comparable methods in the former Soviet Union since the 1920s and in the United Kingdom and the United States since the 1930s.

First of all, we see that the structure of time use changed only slowly from the 1920s until the 1960s, when there was a switch from the six-day to the five-day working week. This switch did not concern women to any great extent, as their work was centred on maintaining the home. Women's household work started to decline in the 1950s and 1960s as a consequence of advances in technology.

The traditional division of work between the genders remained substantially unchanged in western Europe until the 1970s, when married women began to take up gainful employment in larger numbers. Initially, this only concerned women without children, but employment gradually became common among mothers as well. At about this time, men's attitudes towards household work changed, and a slight rise in their household work input can be seen in most ECE countries, while the decrease in the time spent by women on household work continued. Men now participate more actively in household work than before, using more time both for work traditionally considered as clearly being women's work, such as housekeeping and child care, as well as in less gender-specific activities such as shopping.

Women are participating to a greater extent in maintenance-type men's work than previously, but, although gender roles now have less influence in the division of work within households, we observe that women still perform two thirds of all household work in the ECE countries.

The amount of free time varies between countries. Full-time employment means that women have less free time than men; but changes over time indicate a convergence in the amount of free time available to either sex. Women's free time is still more home-centred than men's, though we also notice a tendency towards convergence in men's and women's ways of using free time. The differences in time used for reading and for participation in organizations have diminished. These used to be male-dominated. Time spent on television watching also seems to be converging because of an increase among women. At the same time, there is a reduction in the almost entirely sex-segregated knitting and sewing activities.<sup>1</sup>

There is a general tendency towards convergence in men's and women's time use when one looks at time-use patterns as a whole so that men's and women's everyday lives are tending to become more alike.

Gershuny analyses women's economic activity in more detail for the last three decades. We see a clear change in female participation in the labour force between the 1960s and the 1980s. As participation rates among women increased, the family cycle came to have less effect on women's participation in the labour force. In the sixties, labour force participation was highest among young women and child-care responsibilities kept older women at home, though in some countries women's participation rates increased again once children were older.

The pattern of women's participation in the labour force seems to be moving towards that of men. In some countries with exceptionally high participation rates, the old "M shape" distribution by age seems to have changed to an "inverted U shape". In these countries, women's labour force participation, like men's, is less influenced by the stage of the family cycle.

Gershuny analyses dependencies between Gross National Product and women's labour force participation in the countries of Western Europe. He finds a clear positive relationship, with richer countries having higher participation rates and the poorest having lower rates.

GNP, length of parental leave and child-care provision together explained 80 per cent of the variation in

women's labour force participation. The relatively richer countries are more likely to provide better child-care facilities and parental leave but, once the level of GNP is taken into account, paid parental leave had a stronger independent effect on women's labour force participation than did child-care provision. Part-time employment is often used as a means of combining paid work with the traditional responsibility for child care. Gershuny notices that the rate of part-time employment is higher in countries with a high level of women's labour force participation.

Labour force participation does not tell the whole story about women's status in the labour market and Gershuny looks next at the pattern of time use in order to complete the picture. Using data from the Multinational Time Budget Archive he finds a steady increase in the time spent in paid work among women and a decrease among men. At the same time women have reduced their time spent in household work and men have increased it. He notes that women who take on new paid work responsibilities do not reduce their household work by the same amount. Full-time employed women spend much more time on household work than do full-time employed men. Equal responsibilities in the labour market do not yet reflect equal responsibilities at home, even if slow changes towards this can be seen.

Family status still has a great effect on women's time use. Women with small children are likely to be non-employed or part-time employed. This relationship cannot be observed among men. For women, the presence of children is associated with much more domestic work, and reduced hours in paid work.

Gershuny confirms that, despite the rapidly growing presence of women in the labour force, work responsibilities are still segregated by gender to a considerable extent. The primary male responsibility is still to work in the outside labour market, that of the female is still to work in the home. A woman does somewhat less paid work than a man of equivalent employment status, but much more household work. In every country, this leads to a situation where full-time employed women with small children do more work overall than do full-time employed men. This is the "dual burden" phenomenon. "Employed women have two jobs, their husbands perhaps only one and a half" as Gershuny says. This dual burden has its effects on the position of women in the labour market. Any increase in women's hours spent in paid work would mean a further increase in the difference in total workloads between men and women. This is one of the factors which gives men advantages in the competition for promotion.

Lingsom looks at women's time use in different phases of the life cycle using material from the Multinational Time Budget Archive. Her primary focus is on current, cross-national age and family-cycle variations in women's paid and household work, as well as in the resulting total workloads shouldered by women as compared to men. Time use is analysed for Denmark, Norway, the Netherlands and the United Kingdom, from

<sup>&</sup>lt;sup>1</sup> Note that these activities are described as free-time activities in time-use surveys but are classified as economic activities in the UN System of National Accounts (SNA).

western Europe; for Hungary from eastern Europe; and for the US and Canada from North America.

She finds that women's paid work time varies sharply by age in all countries and particularly dramatically in the lower and upper age ranges. Differences in age-specific employment rates account for some (but not all) of the observed variation by age in women's paid work. Employed women's work time also varies by age, with peak expenditures occurring in different age groups in different countries. Women spend less time on paid work than do men for all age groups in the countries studied. Gender differences in paid work vary considerably between countries and within countries by age. They are substantial from early adulthood to middle age.

Women spend more time on household work than men in all age groups, with gender differences tending to peak in the 25-34 years age group. Women's household work peaks between 25-34 years of age. However, some countries also exhibit a second peak in women's household work time in late middle age.

Women's total workloads, i.e. the amount of time they spend on paid and household work combined, are generally low among young women, high in mid-life and low again for elderly women. The same applies to men's total workloads. Men and women in all age groups do very different kinds of work, but their total workloads are approximately the same. Among young adults and among the elderly, women have slightly higher workloads than men, whereas, in mid-life, men's workloads are heavier than women's.

In Hungary, the only eastern European country analysed, women's workloads exceed men's in all age groups. The same is true in Finland which is not included in the study. Both these countries have high rates of full-time employment among women, reflecting the dual burden phenomenon discussed in Jonathan Gershuny's article. Lingsom also shows that employed women have substantially higher workloads than the average for all women. They do less household work than the average, but the time saved on household obligations does not fully compensate for the time spent in paid work.

Lingsom finds that stage in the family cycle explains more of the variation in women's time use than does age. She suggests that differences in the timing of important family transitions may be a major source of cross-national difference in age-specific behaviour.

Younger women's paid work is hardly affected by marriage but child-rearing responsibilities have a substantial influence. Paid work drops sharply when children are small and increases again later, though it does not return to the pre-child level. Life cycle-specific employment rates again account for some but not all of the observed variation. Work hours of employed women also vary by stage in the family cycle.

Whereas marriage has only a minor impact on women's paid work it substantially increases their

household work time. Child-rearing responsibilities further increase women's household obligations. Household work peaks when there are small children in the family and then decreases once the children are older but, again, it does not return to the low levels seen before childbearing.

Total workloads peak at different stages of the family cycle in different countries. In Denmark they peak prior to childbearing, but in Norway, the UK and Canada women's total workloads are highest among mothers with small children. In the US and in Hungary women's workloads peak when the children are of school age. Men have higher workloads in some phases of the family cycle, women in others, but the gender differences are, as a rule, small and vary by country.

A novel feature of Lingsom's study is the longitudinal analysis of how time use changes with age. She follows birth cohorts through successive independent surveys in three countries (Denmark, Norway and the United Kingdom). Time-use changes over the life cycle are often inferred from cross-sectional age group differences in behaviour. Lingsom shows that predictions based on crosssectional differences between age groups are totally misleading in many cases, due to major shifts in behaviour between different cohorts. Younger cohorts of women are participating more actively in the labour force and taking on fewer household obligations as they grow older than preceding cohorts have done. They have less of a tendency to withdraw from the labour market or reduce working hours when family obligations increase. Longitudinal analysis indicates that child-rearing does not have longterm negative consequences on women's paid work.

Lingsom recommends developing time-use data for longitudinal analysis through panel studies and/or tracing cohorts through independent samples. As she finds that stage in the family cycle is more important than age for understanding women's time use, she recommends paying more attention to collecting family and employment histories when carrying out time-use surveys. This would increase the opportunities for tracing marriage and parenting cohorts over time, thereby increasing the value of data previously collected.

The fourth study, by Viteckova, gives us a view of time use in the eastern and central European countries (previously the centrally planned economies) in the first half of the 1980s. These countries have a long tradition of time-use surveys. Labour force participation is as much taken for granted among women as it is among men. A woman of productive age and in good health is legislatively, economically and morally compelled to work if she is not a student or does not have children under three years of age. Even if labour participation is almost as high among women as among men, women's working hours remain slightly shorter than men's. Women work less overtime, more frequently take the opportunity to reduce their working hours and stay at home more often when children are sick. Most women in eastern and central Europe work full-time, and their working hours are longer than among women in western Europe. The effect of the family cycle on paid work is only minor. The number of children itself does not affect working hours but the age of the children does have some effect: the presence of children under school age does lead to lower working hours.

Viteckova's main focus lies in analyzing work outside the formal economy. She tries to find an interpretation of the informal economy which is relevant to the situation in eastern Europe. She divides work into three sectors: the formal, informal and household economies. Small private enterprises, self-employment as well as market-oriented work on one's own account are all categorized as lying in the informal economy.

Viteckova emphasizes that the economic evaluation of the informal and household economy is very difficult in these countries. Wage equivalents are hard to find because of the lack of paid domestic servants and because of gender inequalities in wages in the formal economy which would lead to the underestimation of both women's paid and household work. She concludes that time allocations alone are sufficient in many cases.

Recent time-use surveys do not serve as a basis for measuring work in the informal economy as defined by Viteckova, as the informal economy is partly included in paid work and partly in household work. Forms of paid work are now changing in eastern Europe following the radical change in the political and economic system. Cooperative and private enterprises are expanding rapidly, previously illegal private enterprises have been legalized and the use of paid employees is increasing in the private sector.

Viteckova divides the household economy further into self-service and production. Self-service includes food preparation, the care of clothes, cleaning, the care of children and adults, repairs and maintenance and shopping. Time-use studies are well suited to measuring these There were big differences between the activities. countries of eastern Europe in the time spent on meal preparation. For example, Czechoslovak women spent about 50 per cent more time on these activities than did women in the former German Democratic Republic. As the technical equipment of households and the market supply of foodstuffs were comparable in the two countries, the differences between them may be due to differing habits of meal preparation or to differing cultural traditions.

Self-service through repairs and maintenance play an important role in eastern Europe. These services are hard to buy on the market and are dominated by men, in contrast to other self-service activities which are mainly performed by women.

Household production is defined as production of new goods (e.g. agricultural products, clothes, a house). Measuring these kinds of activities in time-use surveys is much more complicated than is measuring self-service activities. One prominent difficulty is in differentiating production for own use from production for the market. Viteckova emphasizes that household production is widespread in eastern Europe and has an important economic role for households. Agricultural production is the most common household productive activity and it is increasing in all social and occupational groups, even in the urban population.

The structure of time use is very similar in the different countries of eastern Europe. Viteckova does not find a single case where the differences between countries are greater than the differences between men's and women's time use within individual countries.

Women are overburdened in eastern Europe. We see this clearly when comparing their position with western European women. Full-time employment leads to the overburdening of women if men do not increase their participation in household work in the same proportion. Total hours of work among employed women are over 70 hours per week and reach 77 hours a week among Russian women in Pskov. This figure is about 10 hours higher than among full-time employed women in western-European countries and is even higher than the total time spent on personal needs, sleeping, eating and hygiene.

In Czechoslovakia, 56 per cent of all work falls to women, and this situation is repeated in the other eastern European countries. Women devote more time than men to securing the basic material conditions of life in society as a whole and in households. This provides valid grounds for studying the economic role of women in these societies, even though this is a very difficult task.

Viteckova suggests directions for developing time diary methodology in order to measure more accurately women's (and men's) overall economic activity.

We find some common trends in these four studies. First of all, there is a clear tendency towards convergence in time-use patterns between women and men. This change has been more obvious among women because of the remarkable increase in their labour force participation, compared with the only minor increase in men's household work. Even if the wife has a full-time job, she is still mainly responsible for household work in the family. When children are born the mother stays at home or reduces her working hours. The dual burden on women has been the price women have paid for obtaining access to full-time work and increased equality on the labour market.

In the near future there may be pressure to solve this dilemma by more radically changing the division of work between spouses. Equal sharing would allow both parents to reduce their working hours, especially when children are small. In the Nordic countries a part of maternal leave can be given to the father as well; and both mothers and fathers are given an opportunity to reduce working hours when they have small children.

The aim of the studies included in this publication was primarily to describe the time use of women in industrialized ECE countries. However, in all the studies the focus has widened to analyse women's time use as compared with men's. This is because the status of women cannot be analysed without comparing it to that of men. This is clearly seen in the phenomenon of the dual burden, which depends on the extent to which paid and household work is shared between spouses. Another reason for including men in the analyses of female time use is that, traditionally, female duties are increasingly being performed by men. This hidden work should be visible, regardless of who is responsible for it. We need data on both women's and men's economic roles.

Besides describing economic activity, time-use studies yield much information about the everyday life of women. Instead of a casual use of time-use research, more systematic use of it is needed to regularly observe changes in the role of women. Compilations of existing studies can be based on loose or on systematic comparisons.

A loose but most laborious way is occasionally to go through time-use reports from different countries. These reports, based on unstandardized materials, create problems because of their lack of comparability. As noted in Niemi's chapter, studies differ in their sampling and data collection methods, their adopted definitions and their tabulations of results. Unfortunately comparison of such studies is most often the only way to gain an overall picture of time use in different countries.<sup>2</sup>

The Multinational Longitudinal Time Budget Archive, sponsored by the European Foundation for the Improvement of Working Conditions, is an example of a more systematic comparison. The Archive is a useful source of data sets for cross-national comparisons and was used by Gershuny and Lingsom. National time-use surveys are made as comparable as possible when they are stored in the Archive and, although differences in data collection and sampling remain, the Archive provides the best available material for comparative use. New data sets are added to the Archive every year.

The third alternative is the harmonization of future time-use studies. An initiative is currently being made by EUROSTAT for a European time-use survey and by INSTRAW for time-use studies in Third World countries. In future studies, a full accounting of total work time is required in order to examine the status of women.

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<sup>&</sup>lt;sup>2</sup> A worldwide picture of women's time use in different continents is presented in a United Nations study which collects together all available time use studies. See "The World's Women 1970-1990: Trends and Statistics", Series K, No 8. United Nations Publications, Sales No 90 XVII.3.