



***HOW DO THEY DO IT? A TIME-
DIARY ANALYSIS OF HOW WORKING
MOTHERS FIND TIME FOR THE KIDS***

By Lyn Craig

SPRC Discussion Paper No. 136

January 2005

Published by
The Social Policy Research Centre
University of New South Wales
Sydney NSW 2052
Australia
© SPRC 2004

ISSN: 1447-8978
ISBN: 0 7334 2185 7

Social Policy Research Centre Discussion Papers are a means of publishing results from the Centre's research, work commissioned by the Centre or research by visitors to the Centre, for discussion and comment in the research community and/or welfare sector before more formal publication. As with all the Centre's publications, the views expressed in this Discussion Paper do not reflect any official position on behalf of the Centre. This publication may be downloaded for use in private study, research, criticism and review. The publication is copyright, and may not be reproduced in any form without the prior permission of the author.

Bruce Bradbury, Peter Saunders and Kylie Valentine
Editors

About the Author:

Lyn Craig is a research scholar of the Social Policy Research Centre. For a detailed description of her thesis visit the Centre's website.

Correspondence to: Lyn Craig
Email: lcraig@unsw.edu.au

Abstract

Working parents are obliged to use non-parental childcare. However, parents who make use of non-parental childcare do not reduce their parental childcare time on an hour for hour basis. Since there are only 24 hours in the day, how do parents continue to be engaged in direct care of their own children while also committing significant time to the labour market activities? Using data from the Australian Bureau of Statistics Time Use Survey 1997 (over 4000 randomly selected households), to compare the time allocation of employed fathers, employed mothers and mothers who are not in the labour force, this paper shows how parents maintain their time commitments to both work and childcare. The strategies available are (1) reducing the time devoted to other activities (principally sleep, leisure, bathing, dressing, grooming, eating) (2) rescheduling activities (from weekends to weekday or changing the time of day at which particular activities are undertaken).

1 Introduction

How households balance work and family commitments is currently an issue of major and growing concern. Increasingly, both men and women participate in the paid work force, with the consequence that finding time for unpaid work, including parental childcare, is problematic. Time use analysis allows empirical investigation of how families manage their responsibilities to both earn money and to care for their children. Previous time use research shows that children absorb an enormous amount of parental time, particularly from mothers (Craig and Bittman 2004). But, intriguingly, research also consistently shows that being employed or using non-parental childcare does not reduce parental childcare time on an hour for hour basis (Bianchi 2000; Bittman et al. 2004; Booth et al. 2002; Bryant and Zick 1996; Hofferth 2001; Nock and Kingston 1988). Why not? The aim of this paper is to find out, given there are only 24 hours in a day, how parents who allocate substantial periods of time to market work manage to also spend substantial periods of time caring for their children.

Households with children must devote time to them, time that in childless households is spent in other activities. I begin this paper with an overview of time allocation in households with differing numbers of pre-school children, showing from which activities households draw the time they allocate to children, and how these household time accommodations to children are divided between mothers and fathers. Then I establish which household characteristics predict the use of non-parental care, and finally, investigate how mothers who place their children in non-parental childcare manage to avoid substantially reducing their own parental care time.

2 Background

Finding time for the kids

Children are hugely time-consuming. When children are born into a household, time in the unpaid labour activities of (housework, shopping, and childcare) rockets. Depending on the number and age of children, time in unpaid work can be up to six and a half hours a day higher in families with children than in childless households (Craig and Bittman 2004). Where does this time come from?

The usual assumption is that the source of the time that households must find following the birth of children is time previously spent in paid work. There is a large literature on the costs of children, and since women's work force opportunities have grown it has become standard to acknowledge that a major part of these costs is the opportunity cost of forgoing waged labour in order to care for children (Apps and Rees 2000; Beggs and Chapman 1988; Browning and Lechene 2000; Gray and Chapman 2001; Joshi 1998; Waldfogel 1997).

However, this is not the full picture. Reallocation of time previously spent in paid work does account for much of the time devoted to children (see column one of Table 1), but not all. There are other forms of opportunity cost that are often left peripheral to an analysis of the impact of children on families. Time for children also comes from personal care (which is comprised of such activities as sleep, eating, drinking,

bathing dressing and grooming) and recreation, as is shown here in the second and third columns of Table 1.

Table 1 Predicted household hours a day in employment, personal care and recreation by number and age of children¹

	Employment	Personal Care	Recreation
Number and Age of Children			
No children (constant term)	9.09 ***	22.24 ***	7.46 ***
Youngest 0-2			
1 child	-3.74 ***	-0.87 **	-1.26 **
2 children	-3.03 ***	-1.77 ***	-2.55 ***
3+ children	-3.97 ***	-2.14 ***	-1.39 ***
Youngest 3-4			
1 child	-1.99	-1.69 **	-1.37
2 children	-2.73 ***	-1.53 ***	-2.30 ***
3+ children	-2.60 ***	-1.97 ***	-1.68 **

Source: ABS Time Use Survey 1997

* P-value<0.05 ** P-value<0.01 ***P-value<0.001

So the time directed to children comes from three principal sources; paid work, personal care (including sleep) and leisure. When the children are under two, the major time source is paid work, but after that, paid work, recreation and personal care are sacrificed in about equal proportions. There is some variation with age and number of children, but in the broad, every household with children devotes less time to employment, personal care and recreation than childless households do.

How are these time sacrifices distributed between mothers and fathers? Of the over six hours' time impost associated with a first child, women contribute about 4/5ths (Craig and Bittman 2004). It follows that it is women who are making most of the time adjustments found above at household level analysis once there are children in the family.

The figures in Table 2 confirm that assumption. Women contribute nearly all the household redirection of paid work to unpaid work following the birth of children. They also contribute nearly all the lost household time in recreation. Both sexes sacrifice personal care time, with mothers contributing nearly twice as much as fathers.

¹ This table is drawn from previous analysis by the author, and the full regression tables are available from the author upon request

Table 2 Predicted hours a day spent by men and women in employment, personal care and recreation by number and age of children²

	Employment		Personal Care		Recreation	
	Men	Women	Men	Women	Men	Women
Number and Age of Children						
No children	5.83***	3.50***	10.89***	11.58***	3.53***	3.56***
Youngest 0-2						
1 child	-0.98**	-3.07***	-0.45**	-0.61***	-0.08	-0.90
2 children	0.31	-3.18***	-0.61***	-1.35***	-1.01**	-1.42***
3+ children	-0.51	-4.07***	-0.75***	-1.74***	-0.35	-0.74***
Youngest 3-4						
1 child	0.16	-2.74***	-0.85***	-1.26***	-0.70	-0.39***
2 children	-0.35	-3.25***	-0.53**	-1.12***	-0.74**	-1.19***
3+ children	0.07	-2.85***	-0.75***	-1.47***	-0.46	-0.89***

Source: ABS Time Use Survey 1997

* P-value<0.05 ** P-value<0.01 ***P-value<0.001

In summary, mothers contribute the lost household time in rest and recreation and most households retain a “traditional” approach to childrearing, in which it is mothers who contribute the opportunity cost of forgoing wages in order to spend time with children.

Non-parental care as a replacement for parental care

But many mothers are unwilling or unable to accept this opportunity cost. Withdrawing from the paid work force is a financial risk, which leaves both women as individuals, and their families, vulnerable to poverty (Joshi 1998; O'Connor et al. 1999). Increasingly, mothers are not forgoing their work force participation entirely but attempting to balance work and family commitments. This is not easy. Working mothers of young children are the most time-pressured of all demographic groups (Bittman 2004). They report feeling constantly rushed, are at risk of ill health and stressed relationships and report being too exhausted to have sex (Bittman and Wajcman 1999; Pocock 2003; Warner-Smith and Brown 2004). When children are young, someone must look after them. Working parents with children under five years old therefore look to non-parental childcare to substitute for their time with children.

But does non-parental childcare actually replace parental time? Largely as a result of fears about maternal deprivation, there has been a lot of research on the effect of maternal employment on time with children. The most striking aspect of time use investigations is that neither the use of childcare nor participation in the paid work force completely replaces mothers’ time with their own children. Research consistently shows that maternal childcare is reduced by far less than an hour for every hour the mother works or uses non-parental childcare (Bianchi 2000; Bittman et al. 2004; Booth et al. 2002; Bryant and Zick 1996; Hofferth 2001; Nock and Kingston 1988). Being employed or using non-parental childcare does not reduce maternal

² This table is drawn from previous analysis by the author, and the full regression tables are available from the author upon request

childcare time on an hour for hour basis. Indeed, the use of childcare does not reduce some parental interactions, those involving talking, reading and playing, at all (Bittman et al. 2004).

So concern that when they are placed in non-parental care, children are missing out on much maternal attention, appears misplaced. The challenge is not to catalogue the degree of children's deprivation of parental time if non-parental care is used, but to explain the continuity of maternal time inputs, despite non-parental childcare use. How do they do it? How do mothers with pre-school children (under five years old) who use non-parental care manage to spend substantially similar amounts of time in childcare activities as mothers who do not use non-parental childcare?

3 Research focus

Hypothesis

My hypothesis is that mothers use childcare not to replace their own care, but to shift the times when they are together with their children. Apart from doing more at once³, there are two possibilities of where time can be found: by either reducing time in other activities and directing it to childcare time, or rescheduling time with children around other activities. As this study will show, non-parental childcare is used for both work and non-work purposes. Non-working mothers have more flexibility than working mothers to reschedule their parental childcare around substitute care. Therefore, I further hypothesise that working mothers preserve their time with children by reducing, in comparison with non-working women, the time they spend in non-work and non-childcare activities, and rescheduling childcare activities to later or earlier in the day.

Data

For this study, I use the Australian Bureau of Statistics (ABS) *Time Use Survey 1997*. Time use research provides a window into the domestic sphere and gives insight unavailable to other data collection methods about how life is actually lived (Gershuny and Sullivan 1998; Robinson and Godbey 1997).

The *Time Use Survey 1997* is the most recent in a regular series of cross-sectional time use surveys conducted by the ABS. These surveys reach the highest standard of time-diary methodology, recognised by international specialists to be the most accurate method of time data collection (Andorka 1987; Juster and Stafford 1991; Robinson and Godbey 1997). The Australian time-use data are good even by the standards of time-diary methodology. First, the high average number of episodes per day (over 30) indicates higher than usual data quality (ABS 1998; Juster and Stafford 1991; Robinson and Godbey 1997). Second, the sampling unit is unusually large. The Australian surveys randomly sample over 4000 households. They require each person aged fifteen years or older resident in that household to record, at 5-minute intervals, all their activities over two days. This garners vastly more reliable and analytically relevant information than surveys which request one respondent to give information about their household, themselves and on behalf of other members. It allows analysis

3 A great deal of childcare is in fact done at the same time as other activities, but in this article, I analyse main, or 'primary' activity only.

of real couples and families that gives more reliable and complete information than when having to deduce family behaviour from information on individuals. Also, the Australian surveys are national probability surveys of private dwellings. Finally, the Australian survey has little non-response distortion. Under Australian law, cooperation with the Australian Bureau of Statistics is mandatory and for both surveys rates for full response are over 70 per cent and for partial response (e.g. only one diary-day) over 84 per cent.

The Australian time use surveys are not only unusually valid and reliable by world standards but are also unusually comprehensive and detailed. For this reason, the data have been extensively analysed. Time-use patterns in Australia are held to be representative of time-use in other English-speaking countries, and can be generalized to other western countries (Bittman et al. 2003; Robinson and Godbey 1997).

Sample

I draw from the ABS *Time Use Survey 1997* a sub-sample of families with at least one child under the age of five (N=1690). Both married/cohabiting and single parent families are included. However, since the data set includes only four single custodial fathers, the analysis of single parents is based on mothers only (N=90).⁴

Method

The analysis is conducted in three stages. First, to see which demographic variables predict the use of non-parental care, I run Ordinary Least Squares (OLS) regression analysis, with weekly hours of non-parental care as the dependent variable. The independent variables are family structure, number of children, respondent's hours in market work, spouses' hours in market work, age, educational qualifications, the use of non-parental childcare, household income, day of the week, and whether there is a disabled person in the household. The analysis is run separately for men and women. I conclude this section with a brief descriptive overview of the extent to which, in this sample, maternal workforce participation and childcare go hand in hand.

Second, I split the women in my sample by workforce status and run OLS regression analysis separately for fathers (N=801), working mothers (N=468) and non-working mothers (N=421). The model is the same as that detailed above except that it includes dummy variables for the type of childcare used⁵, and because the women were separated by workforce status, the variable "hours of market work" is excluded from the female regressions. The intention of this comparison is to see whether the type or duration of non-parental care has different implications upon the time each group spends in activities other than childcare.

4 The ABS treats legally married and de facto married couples alike, reflecting their treatment in the Australian legal system.

5 In Australia, child care is split into 'formal' and 'informal' care. 'Formal child care' refers to regulated care away from the child's home. It includes before and after school care centers, long day care centers, family day care (in which registered women in their own homes care for up to five pre-school children) nursery school and kindergarten centers and occasional care centers. "Informal child care" refers to non-regulated care in either the child's home or elsewhere. Informal care includes care provided by the child's siblings, the child's grandparents, another relative of the child, or any other person (ABS 1999). It may be paid or unpaid.

The dependent variables are four separate types of non-employment and non-childcare activity that may be sacrificed to childcare; domestic labour (housework, shopping, home maintenance), sleep, personal care⁶ and child-free recreation time. The constant terms represent time spent doing the specified activity on a weekday by a 35-44 year old, non-employed, married parent of one child under 3, who uses no non-parental care, has no tertiary educational qualifications, and does not live with a disabled household member.

For the third and final part of the analysis, I calculate whether respondents are participating in active childcare in each five-minute block of time during the 24-hour day. I then compare the average participation in active parental childcare at each end of the day in households with mothers working full-time (35 hours a week or more) and households with mothers who do no paid work. This is intended to investigate whether in working-mother households, parental childcare activities are rescheduled to earlier or later in the day than in other households.

4 Results

Who uses non-parental childcare?

The variable most strongly associated with non-parental childcare use is, not surprisingly, maternal employment (see Table 3). However, non-parental childcare use is predicted to go up by only half an hour a week for every hour a week a mother works, confirming that mothers' time in employment and time in childcare do not completely equate.

The findings for men also reflect the relationship between female work and non-parental childcare. Non-parental childcare is predicted to rise by nearly half an hour a week for every hour a man's spouse works. Continuing the male-female complementarity, neither men's own time in paid employment, nor women's spouse's time in paid employment predict an increase in the use of non-parental childcare. These results confirm that non-parental childcare is used to replace mothers' time, not fathers'.

Family size is related to childcare use, but there is not a straightforward monotonic increase with each additional child: having two children in the family predicts that non-parental childcare will average over 2 hours longer than if there is one child, or if there are three or more children in the family. There is a small but highly significant association with household income. Non-parental care increases by 0.005 hours (0.3 of a minute) a week for every extra dollar of household income.

For women, several other factors also predict a higher use of non-parental childcare. Having no spouse means that non-parental care is more heavily relied upon. Being a single mother predicts a large increase in non-parental care use of nearly 12 hours a week. The use of childcare is also predicted by maternal age. Mothers aged 25-34

⁶ ABS Time Use Survey 1997 codes 100- 199: sleeping; sleeplessness; personal hygiene (bathing, dressing, grooming); health care; eating/drinking; associated communication; associated travel

average 2.4 hours a week more non-parental childcare usage than mothers who are older.

Table 3: Predictors of non-parental childcare use

Variable	Father	Mother
Sole parent	N/A	11.71 *** (1.82)
Child >2 years	0.71 (0.97)	1.45 (0.91)
Number of children		
Two	2.20 ** (1.07)	2.17 ** (1.00)
Three or more	0.35 (1.18)	1.00 (1.10)
Market work (hours a week)	-0.10 (0.03)	0.50 *** (0.03)
Spouse's market work (hours a week)	0.46 * (0.03)	-0.01 (0.03)
Household income	0.01 *** (0.00)	0.01 *** (0.00)
Disabled person in household	0.93 (1.01)	-0.41 (0.97)
Age		
25-34	0.21 (0.93)	2.50 ** (0.93)
45-54	-3.57 (2.17)	-9.21 (4.16)
Qualifications		
University	-1.69 (1.12)	-0.27 (1.07)
Vocational	-0.88 (1.05)	0.89 (1.04)
Day of the week		
Saturday	1.06 (1.28)	0.01 (1.21)
Sunday	1.67 (1.67)	1.45 (1.18)
R Square	0.36	0.40

Source: ABS Time Use Survey 1997: * P-value<0.05 ** P-value<0.01 ***P-value<0.001

In summary, these findings confirm two important points. First, childcare use is closely related to mothers' work force participation but not to fathers', which means that investigation as to how parental time with children is maintained should focus primarily on mothers. Second, although mothers' time in paid work strongly predicts the use of non-parental care, it does not perfectly equate with time the children are in that care. I now turn to the question of why this is so.

What is non-parental care used for?

Part of the mystery of why the use of non-parental childcare does not markedly reduce mothers time with children is resolved by investigating the purposes for which childcare is actually used. A widespread assumption is that non-parental care is used to allow a mother to spend time in the paid work force (Brennan 1994). This is indeed the major use of extra-household day care, but it is by no means the only use for it.

Non-parental care is used not only to replace time that mothers are working, but also time that mothers are spending in other activities. In my sample, paid work and the use of non-parental childcare have a correlation of 0.47 for married mothers and 0.31 for sole mothers. Not only is non-parental childcare being used for other purposes than employment but, more puzzlingly, women are working but not using non-parental childcare when they do so.

A close examination of the data showed that it is indeed often the case that women do paid work without seeking to place their children in the care of others. Individual case records revealed 111 cases (days) of women who were in the paid work force, but used no regular weekly non-parental care. Of these, there were 50 cases (days) of women who had actually done paid work on the diary days, but used no non-parental care. Some were doing shift work, but the most usual situation was that the work was carried out at home with the children present. Most of the women who employed this strategy were working part time, doing clerical work for the private sector, although some worked in agriculture. An examination of their husbands' records suggested that some of the women were farmers' wives who participated in farm work while supervising children, and others were doing the clerical work for their husbands' business while supervising children.

It is apparent that paid work and non-parental childcare do not go hand in hand (see Table 4). Many women who work do not use non-parental childcare and many women who use non-parental childcare do not use it for work purposes.

Table 4: Proportion of households using non-parental care by mother's work status

Type of non-parental care	Women in Paid Work	Women Not in Paid Work
	%	%
n	468	421
None	24	59
Formal only	35	30
Informal only	19	5
Both formal and informal	22	6
Total	100	100

Source: ABS Time Use Survey 1997

So part of the answer to the question of how women preserve time with their children despite non-parental childcare use, is that both working and non-working women use non-parental childcare, and it has different implications for each group. Women who use non-parental childcare for non-work purposes can fit their parental childcare around their non-parental care arrangements. Similarly, working women who do not use non-parental care can fit their work around their care responsibilities, or do both simultaneously. There is a possibility that widespread childcare usage for non-work purposes and the practice of using no childcare while working may have confounded previous analyses. The essential question becomes: how do mothers who *use non-parental childcare in order to do market work* maintain their parental childcare time? I now report the results of my second OLS regression analysis, which separates

working from non-working women, and from fathers, in order to investigate the effects of childcare use independently upon each group.

Time squeezing

Domestic labour (excluding parental childcare)

Some of the time devoted by working mothers to care of their own children is time that non-working women allocate to domestic labour such as housework and shopping (see Table 5). On average, working women (aged 35-44, with one child under 2, no disabled family member) spend on a weekday 3 hours and 12 minutes a day doing domestic work and shopping, compared with nearly 5 hours spent by non-working mothers. Fathers with a similar demographic profile average much less time than either group of women (1.9 hours a day) in domestic labour.

Table 5: Predicted hours a day spent in domestic labour

Variable	Domestic labour		Mothers		Not Employed	
	Fathers		Employed			
Constant	1.99	***	3.24	***	4.98	***
Type of non-parental care						
Mixed	-0.28		-0.66		-0.46	*
Formal only	-0.21		-0.33		0.18	
Informal only	-0.03		-0.68		-0.31	
Duration non-parental care (hours a week)	-0.00		-0.02	*	-0.00	
Market work (hours a week)	-0.10	**	N/A		N/A	
Spouse's market work (hours a week)	0.00		0.00	***	0.00	
Household income	-0.00		-0.00	*	-0.00	
Single parent	N/A		1.05		0.47	
Child >2 years	-0.07		0.17		0.53	
Number of children						
Two	0.12		0.37		0.08	
Three or more	0.08		0.53		0.69	*
Disabled person in household	0.47	**	0.16		-0.01	
Age						
25-34	0.12		-0.27		-0.17	
45-54	0.24		0.02		-0.17	
Qualifications						
University	0.43		-0.19		-0.34	
Vocational	0.23		0.09		0.00	
Day of the week						
Saturday	1.65	***	0.59		-0.45	
Sunday	1.53	***	0.89	**	-0.57	
R square	.139		.139		.075	

Source: ABS Time Use Survey 1997: * P-value<0.05 ** P-value<0.01 ***P-value<0.001

The model predicts that the use of non-parental childcare will further squeeze women's time in unpaid work such as housework and shopping. Working women's time in domestic labour reduces by 1.2 minutes a day in association with every weekly hour of non-parental care (amounting to over half an hour a day for 30 hours of care a week). It is unaffected by the type of care used. Women who do no paid work but use mixed care are predicted to also spend less time in domestic labour than women in the reference category, by 0.4 hours a day.

Working women's time in domestic labour is predicted to go up with each extra hour of paid work done by their spouse. This amounts to nearly an hour a day if he works a standard 35-hour week.

Both fathers and working mothers are predicted to catch up on domestic duties on the weekends. Men spend about an hour and half longer in domestic chores on weekends than on weekdays. The model predicts that working mothers will do nearly an hour more housework on a Sunday than on a weekday. Non-working mothers do not appear to reschedule like this, and average no more housework at the weekends than on weekdays.

Sleep

Parents get less sleep than non-parents, and, relative to the childless, mothers lose more sleep than fathers (Craig and Bittman 2004). The average sleep time of mothers who work and mothers who do not is fairly similar (see Table 6). Fathers in the base category of the regression model average about 25 minutes more sleep a night than either group of women. Using non-parental care seems to gain working mothers a little extra sleep. Duration of non-parental childcare is associated with a small but significant increase in sleep time for working mothers. The predicted increase would amount to about 20 minutes a day if the child were in day care for 20 hours a week.

Table 6: Predicted hours a day spent sleeping

Variable	Sleep Fathers		Mothers		Not Employed	
			Employed			
Constant	8.77	***	8.37	***	8.36	***
Type of non-parental care						
Mixed	-0.41		-0.28		0.15	
Formal only	0.00		-0.10		0.23	
Informal only	0.00		-0.14		0.17	
Duration non-parental care (hours a week)	-0.00		0.01	**	-0.00	
Market work (hours a week)	-0.00		N/A		N/A	
Spouse's market work (hours a week)	0.00		0.00		0.00	
Household income	-0.00	***	0.00		0.00	
Single parent	N/A		0.30		0.05	
Child >2 years	0.03		-0.00		0.24	
Number of children						
Two	0.00		-0.18		-0.18	
Three or more	-0.13		-0.25		-0.41	
Disabled person in household	-0.20		-0.17		-0.08	
Age						
25-34	-0.17		0.18		0.07	
45-54	0.16		-0.02		-0.01	
Qualifications						
University	-0.08		-0.55	**	-0.47	
Vocational	0.03		-0.29		-0.39	
Day of the week						
Saturday	0.40	*	0.29		0.37	
Sunday	1.10	***	0.70	***	0.62	**
R square	.098		.111		.068	

Source: ABS Time Use Survey 1997 * P-value<0.05 ** P-value<0.01 ***P-value<0.001

On average, all parents will get some extra sleep on a Sunday. Fathers average an hour and six minutes more, working mothers 42 minutes more, and non-working mothers 37 minutes more sleep than on weekdays. Fathers, but not mothers in either group, also enjoy extra sleep on Saturdays (25 minutes).

Personal Care

Comparing the constant terms of the regression results show that there is a considerable difference in the average amount of time working and non-working women spend in personal care activities such as eating, drinking, bathing, grooming and dressing (see Table 7). This is another activity in which working women average substantially less daily time than non-working women, meaning it could be redirected by working mothers to time in care of their children. Working mothers in the reference category spend, on average, just under two hours a day in personal care activities whereas non-working women in the reference category average just over three hours a day. So on average working mothers squeeze an hour a day personal care time, which could be devoted to childcare. Fathers do not sacrifice their personal care time to the same degree. They spend nearly two hours and twenty minutes a day in personal care which, though 48 minutes less than non-working mothers, is 25 minutes more than working mothers have.

Table 7: Predicted hours a day spent in personal care

Variable	Personal care					
	Fathers		Mothers Employed		Not Employed	
Constant	2.38	***	1.97	***	3.08	***
Type of non-parental care						
Mixed	-0.39		-0.00		-0.07	
Formal only	-0.22		-0.06		-0.33	
Informal only	-0.25		-0.06		-0.27	
Duration non-parental care (hours a week)	0.00		0.00		0.03	*
Market work (hours a week)	-0.00		N/A		N/A	
Spouse's market work (hours a week)	-0.00		0.00		0.00	
Single parent	N/A		-0.17		0.23	
Child >2 years	0.01		0.00		-0.00	
Number of Children						
Two	-0.00		-0.20		-0.55	**
Three or more	-0.04		-0.33	*	-0.67	***
Disabled person in household	-0.05		0.00		0.25	
Age						
25-34	0.01		0.13		-0.35	*
45-54	0.33		0.10		0.02	
Qualifications						
University	0.04		0.12		-0.32	
Vocational	-0.12		0.16		-0.30	
Household income	0.00		0.00		0.00	
Day of the week						
Saturday	0.20		0.38	*	0.33	
Sunday	0.43	**	0.31	*	-0.18	
R square	.036		.051		.091	

Source: ABS Time Use Survey 1997 * P-value<0.05 ** P-value<0.01 ***P-value<0.001

The use of non-parental care does not predict that working mothers will be freed up to increase their time in their own personal care. Non-working mothers, in contrast, do gain personal care time from the use of extra-household childcare. For every hour a non-working mother uses day care for her child, she adds 0.03 of an hour to her personal care time. This would mean an increase of 23 minutes a day for the average non-parental care (for non-working mothers who use care) duration of 13 hours a week.

There is no difference in the time non-working mothers spend in personal care on the weekends than during the week. In contrast, both fathers and working mothers make up the deficit in their daily personal care time at weekends by spending, for fathers, 24 minutes longer on Sundays, and for working mothers, 22 minutes more on a Saturday, and 18 minutes more on a Sunday.

Child-free recreation

Table 8 gives a powerful indication of the time pressure on working mothers. Working mothers in the reference category appear to get no childfree recreation at all. The constant term predicted by the model for working mothers in the base category is almost zero. There is a substantial difference between the situation of working mothers and that of either fathers or non-working mothers. The average childfree recreation time of fathers with children under five years old is an hour and 12 minutes a day. The average for non-working mothers is 24 minutes a day.

None of the independent variables, including childcare use, is associated with an increase in childfree leisure time for working mothers. In contrast, using non-parental childcare does increase fathers' childfree leisure time. The gain in childfree leisure for a father of a child who spends 20 hours a week in non-parental care is 12 minutes a day. This suggests that when working couples do not use day care, the fathers are to some degree participating in childcare and losing some childfree leisure time.

Table 8: Predicted hours a day spent in child-free recreation

Variable	Child-Free Recreation				
	Father		Mothers Employed	Not Employed	
Constant	1.21	***	-0.01	0.38	**
Type of non-parental care					
Mixed	-0.10		0.00	0.64	**
Formal only	-0.01		0.17	0.26	*
Informal only	-0.20		0.28	-0.12	
Duration non-parental care (hours a week)	0.01	*	-0.00	-0.00	
Market work (hours a week)	-0.00		N/A	N/A	
Spouse's market work (hours a week)	-0.00		-0.00	-0.00	
Single parent	N/A		0.27	0.00	
Child >2 years	0.20		0.18	0.12	**
Number of Children					
Two	-0.36	**	-0.00	-0.17	
Three or more	-0.37	**	0.00	-0.33	**
Disabled person in household	-0.14		0.00	-0.00	
Age					
25-34	-0.07		0.14	-0.21	**
45-54	0.31		-0.10	0.00	
Qualifications					
University	-0.58	***	0.01	-0.01	
Vocational	-0.39	***	0.05	0.03	
Household income	0.00		0.00	0.00	
Day of the week					
Saturday	0.37	*	0.05	0.12	
Sunday	0.18		0.06	-0.15	
R square	.063		.052	.095	

Source: ABS Time Use Survey 1997 * P-value<0.05 ** P-value<0.01 ***P-value<0.001

Non-working mothers also are predicted to gain childfree leisure from the use of extra-household childcare. The use of mixed care and formal care predicts an increase in non-working mothers' childfree leisure of 36 minutes and 18 minutes a day respectively. Also, there is a very small but significant effect on childfree leisure of non-working women with household income. The model predicts that at a weekly income of \$1,000 this amounts to an extra 20 minutes a day. No similar effect is found for working mothers.

No mothers gain childfree leisure on the weekends. Fathers, in contrast, average 24 minutes more childfree leisure on a Saturday than on a weekday.

In summary, the results of these regression analyses indicate that in order to preserve time with their children, working mothers average less time in housework, personal care and childfree leisure time than other parents. The use of non-parental childcare does not assist working mothers to find more time in these activities than working mothers who use no childcare at all. Using non-parental childcare gives non-working mothers (if they can afford it) more daily time for personal care and for childfree recreation, but does not confer these opportunities upon working mothers. This implies that non-working mothers use childcare to reschedule daily activities, but

workingwomen just give up time in those activities and direct it to either paid work or childcare.

Some of the time that working mothers lose in housework and personal care on a daily basis is being made up on weekends, which presumably further restricts time in leisure.

Time shifting

The time squeezed by working mothers from the activities discussed above gives a partial answer to how working mothers find time to spend with children. However, it does not fully account for the gap between working hours, childcare use and the time mothers spend with children. I now investigate whether in addition to daily non-work and non-childcare activities being reduced, whether maternal childcare is being rescheduled around work commitments. In other words, are mothers who both work and use childcare shifting the time they spend caring for their own children to earlier or later in the day? Figure 1 shows the percentage of households doing active childcare between 6.30 a.m. and 8.00 a.m. The black line represents households in which the mothers work full-time (35 or more hours a week). The dotted line represents households in which mothers do not participate in the paid work force. Until 8.00 am, the average participation rate in active childcare is higher in households in which the mother is working full-time than in households in which the mother is not working (significant at >0.05 probability). This shows that families with working mothers begin their days earlier, and taper off their childcare activity earlier in the morning than households with non-working mothers.

Figure 1: Proportion of households participating in active childcare by woman's workforce status (morning)

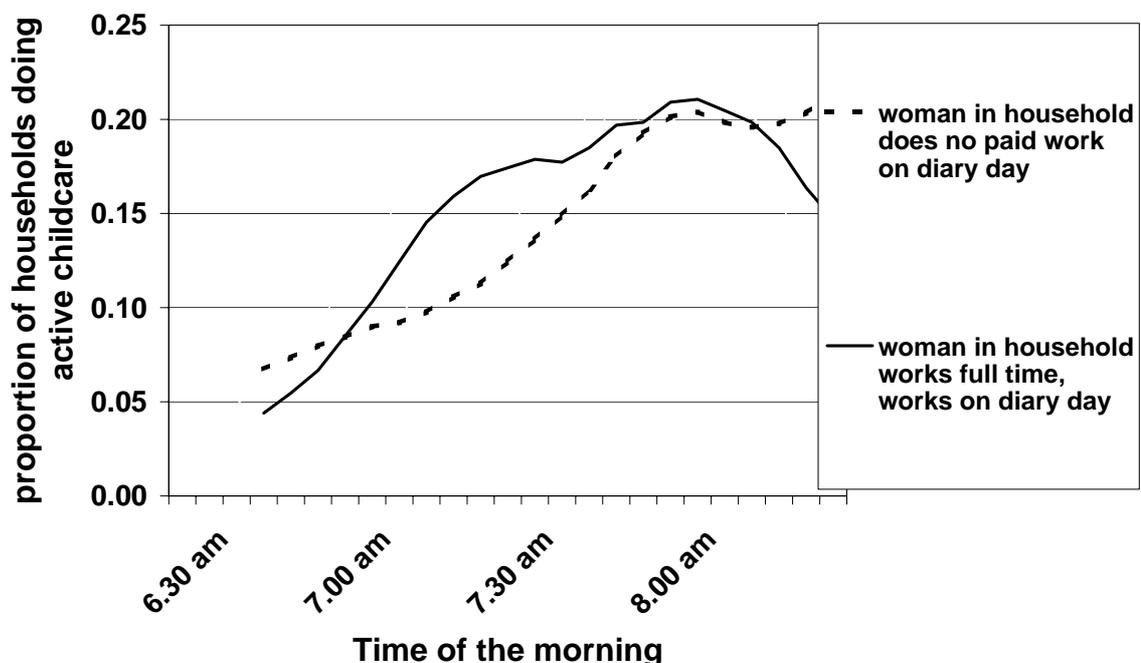
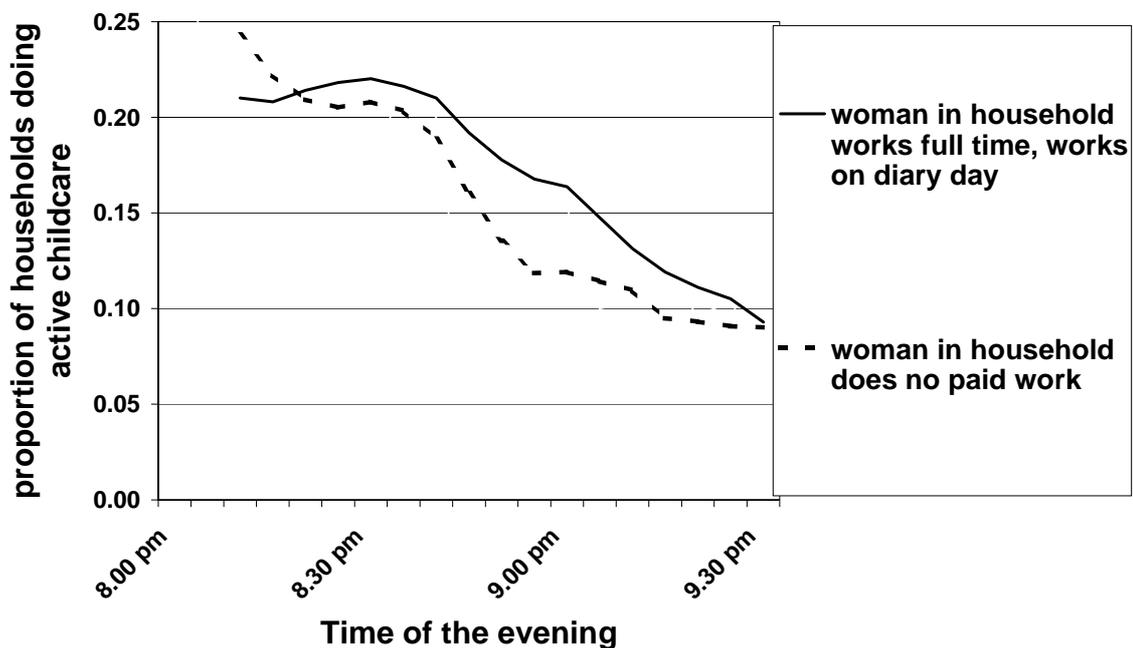


Figure 2 shows that the same is true at the other end of the day. Between 8.30 p.m. and 9.30 p.m., households with working mothers have a higher average participation rate in active childcare tasks than households with non-working mothers. Parents in working mother households are more likely to be involved in active childcare tasks after 8.30 pm than other families (significant at >0.05 probability). The results imply that children in some of these families are going to bed later than children in non-working mother households. It should be remembered that these data represent families with children under five years old. The phenomenon of time shifting may be more pronounced in families with older children.

Figure 2: Proportion of households participating in active childcare by woman's workforce status (evening)



5 Discussion

The results of this study support the hypothesis that mothers use non-parental childcare not to completely replace their own care, but to shift the times when they are together with their children. Both working and non-working mothers use non-parental childcare, and both reschedule parental childcare time around it. But, because their time is less flexible, working mothers who use non-parental childcare must squeeze more time from other activities to facilitate this rescheduling. The subsidiary hypothesis that working mothers preserve their time with children by further reducing, in comparison with non-working women, the time they spend in non-work and non-childcare activities, and rescheduling childcare activities to later or earlier in the day is also strongly supported by the results of this study. The answer to the puzzle of how employed mothers who use non-parental care manage to spend substantially similar amounts of time in childcare activities as mothers who do not use non-parental childcare is that they flexibly shave shift and squeeze their own time around their responsibilities to market work and care.

The analysis clearly shows why working mothers of young children are the most time-pressured of all demographic groups. Households with mothers employed full-time are likely to begin childcare activities earlier in the morning, and end them later at night, than households with non-working mothers. This suggests a lived reality in which mothers get up early to shower and dress for work and undertake preparation for the day, organising the morning routines and helping their children to put on their clothes and eat their cereal, and shepherding them to the car to be dropped at day care in time for mum to get to work. They conjure a picture of women rushing from work to pick up their children from day care, cooking and bathing and feeding and talking to and playing with and reading to their children, and cuddling them to sleep at 9.00 o'clock at night, before dropping exhausted into bed themselves and beginning it all again the next day.

On average, employed mothers spend less time in housework and shopping than non-employed mothers. Using childcare does not predict an increase in this time. These results fit with an image of a working woman stopping at the supermarket to buy food to cook for dinner after picking up her children from day care on the way home from work, who never feels on top of the housework, and whose piles of unfolded washing grow ever higher.

Employed mothers of young children spend even less time in personal care than other parents do. A small illustration of this would be working mothers of young children who complain they cannot remember the last time they coloured their hair or had a shower without sharing the cubicle with a toddler.

Employed mothers do reschedule some of these activities. Some of the lost time in unpaid work and personal care is recouped on the weekends. The use of non-parental childcare is associated with a slight increase in working mothers' sleep time.

Employed mothers of pre-schoolers get almost no childfree recreation, and the use of non-parental care on a workday does not predict any increase. It seems that working mothers spend any leisure time they have with their children also present. While on Saturdays fathers manage to find a little more childfree leisure time, mothers do not allocate time to leisure away from their children even at weekends.

6 Conclusion

The results of this study suggest that working mothers, through flexibly managing their own time, try to avoid an unacceptable trade-off between time in paid work and time in care of their own children. Since much of the time they preserve for market work and childcare is found by squeezing their own time in recuperative activities, the findings imply that mothers are more willing to contemplate adverse outcomes to themselves than to their employers or to their children. The results are a powerful testament to the high value mothers place on spending time with their own children, and also demonstrate the personal sacrifices mothers make when maintaining their attachment to the paid work force. They plainly illustrate how demanding upon mothers of young children is the lived reality of "balancing" work and family.

References

- Australian Bureau of Statistics (ABS) (1998), *Time Use Survey, Australia. Users Guide 1997*, Cat No. 4150. Canberra: Australian Bureau of Statistics.
- Andorka, R. (1987), 'Time budgets and their uses', *Annual Review of Sociology*, 149-164.
- Apps, P., and R. Rees (2000), 'Household production, full consumption and the costs of children', in Discussion Paper No. 157, Sydney: Faculty of Law, University of Sydney.
- Beggs, J., and B. Chapman. (1988), *The Forgone Earnings from Child-Rearing*, Canberra: Centre for Economic Policy Research, Australian National University.
- Bianchi, S. M. (2000), 'Maternal employment and time with children: Dramatic change or surprising continuity?', *Population Association of America*, Los Angeles, California.
- Bittman, M. (2004), 'Parenting and employment. What time-use surveys show', in Bittman M. and Folbre N. (ed), *Family Time: The Social Organisation of Care*, London and New York: Routledge.
- Bittman, M., L. Craig, and N. Folbre (2004), 'Packaging care: What happens when parents utilise non-parental child care', in Bittman M. and Folbre N. (ed), *Family Time: The Social Organisation of Care*, London and New York: Routledge.
- Bittman, M., P. England, L. Sayer, N. Folbre, and G. Matheson (2003), 'When does gender trump money? Bargaining and time in household work', *American Journal of Sociology*, 109.
- Bittman, M., and J. Wajcman (1999), *The Rush Hour: The Quality of Leisure Time and Gender Equity*, SPRC Discussion Paper No 97, Sydney: Social Policy Research Centre.
- Booth, C., A. Clarke-Stewart, D. Lowe Vandell, K. McCartney, and M. Tresch Owen. (2002), 'Child-care Usage and Mother-Infant "Quality Time"', *Journal of Marriage and the Family*, 64: 16-26.
- Brennan, D. (1994), *The Politics of Australian Childcare: from Philanthropy to Feminism*, Cambridge: Press Syndicate of the University of Cambridge.
- Browning, M., and V. Lechene (2000), *Children and Demand: Direct and Non-Direct Effects*, Ontario: McMaster University.
- Bryant, W. K., and C. D. Zick (1996), 'An examination of parent-child shared time', *Journal of Marriage and the Family*, 58: 227-237.
- Craig, L., and M. Bittman (2004), 'The effect of children on adults' time-use: analysis of the incremental time costs of children in Australia', paper presented at Conference on Cross National Comparisons of Expenditures on Children. Princeton University, New Jersey.
- Gershuny, J., and O. Sullivan (1998), 'The sociological use of time-use diary analysis', *European Sociological Review*, 14: 69-85.

- Gray, M., and B. Chapman (2001), 'Foregone earnings from childrearing: changes between 1986 and 1997', *Family Matters*, 58: 4-9.
- Hofferth, S. (2001), 'Women's employment and care of children in the United States', in T. Van der Lippe and L. Van Dijk, (eds.), *Women's Employment in a Comparative Perspective*, New York: Aldine de Gruyter.
- Joshi, H. (1998), 'The opportunity costs of childbearing: more than women's business', *Journal of Population Economics*, 11: 161-183.
- Juster, E.T., and E.P. Stafford (1991), 'The allocation of time: empirical findings, behavioural models, and problems of measurement', *Journal of Economic Literature*, 29: 471-522.
- Nock, S. L., and P. W. Kingston (1988), 'Time with children: the impact of couples' work-time commitments', *Social Forces*, 67: 59-85.
- O'Connor, J., A. Orloff, and S. Shaver (1999), *States, Markets, Families*, Cambridge: Cambridge University Press.
- Pocock, B. (2003), *The Work/Life Collision*, Federation Press.
- Robinson, J. P., and G. Godbey (1997), *Time For Life. The Surprising Ways Americans Use Their Time*, Pennsylvania: Pennsylvania State University Press.
- Waldfogel, J. (1997), 'The effect of children on women's wages', *American Sociological Review*, 62: 209-217.
- Warner-Smith, P., and P. Brown (2004), 'Managing work-life tensions in dual-earner families in Australia', paper presented at the International Association for Time Use Research Annual Conference 2004. Rome, Italy: ISTAT - Italian National Statistical Institute.