Final Report

Use of informal childcare and decisions on work by income support recipients

Project 1/2006

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Executive Summary

This report uses cross sectional data from the ABS Child Care Survey 2002 and longitudinal data from five waves of the Household, Income and Labour Dynamics in Australia (HILDA) Survey to investigate the use of informal childcare and decisions on work by income support recipients.

Employment related care is defined as childcare used when both caregivers are at work (HILDA) or is used when the reason given for using it is work (ABS Child Care Survey). Any other care used is classified as non-employment related care.

Formal care is defined as regulated care away from the child's home. All other forms of care are classified as informal care.

Q: Do income support recipients rely relatively more on informal care than formal care compared to parents not on income support?

A: No. In terms of average usage rates we found that mothers on income support are always (much) less likely to use employment related care, be it formal or informal. The usage rates of non-employment related care, be it formal or informal, do not differ by income support recipiency status. The only exception is formal non-employment related care for children not yet in school in HILDA, with mothers receiving an income support payment much more likely to use this type of care than mothers not receiving an income support payment. When comparing the *ratio* of informal to formal employment related care by income support status in order to investigate *relative* prevalence we find either no relative prevalence of informal care for income support recipients (in the case of children aged 5 and up) or a relative preference for formal employment related care (in the case of children less than 5 years of age).

Q: To what extent does informal care assist in parents' decision to move from welfare to work or to increase hours of work?

A: **Part 1**. We can summarise the nexus between childcare, income support and non-work to work decisions (i.e. welfare to work decisions in case of income

support receipt) as follows: Non working mothers on income support are less likely to be in work next period, compared to non working mothers not on income support. Conditional on making the transition to work, the relative dependence on informal care depends on the ages of the children. When analysing all mothers as a group we find that, conditional on making the transition to work , mothers on income support are *more* likely to not use care. They are *less* likely to use only formal care and *equally* likely to use some informal care, compared to mothers not on income support.

For mothers with school-aged children, conditional on making the transition to work, we find that mothers on income support are *more* likely to use care for children in school. They are *more* likely to use some informal care for children in school, and about *equally* likely to use only formal care for children in school, compared to mothers not receiving an income support payment.

For mothers with preschool-aged children, conditional on making the transition to work, we find that mothers on income support are *less* likely to use care for children not yet in school. They are *less* likely to use some informal care for children not yet in school, and *less* likely to use only formal care for children not yet in school, compared to mothers not receiving an income support payment.

A: **Part 2**. Restricting the data to mothers in work at period t who increase their hours worked in period $t+1$ we can summarise the nexus between childcare, income support and increasing hours of work as follows. Overall, an increase in hours worked is more likely to be accompanied by an increase in only informal hours of care for mothers on income support, compared to mothers not on income support. In contrast, mothers on income support are more likely to increase hours of care following an increase in hours worked, compared to mothers not on income support. This pattern holds for mothers with school aged children, preschool-aged children or all mothers with children in general.

Q: How does the above vary with the age of children, number of children, family type and other demographic and socio economic characteristics?

A: **Part 1 (participation)**. Results from a model describing transitions from period *t* to period *t*+1 between non-employment, employment with informal care, employment with formal care, employment with both types of care, and employment without care showed the following.

Income Support

The role of income support receipt, although present, is overshadowed by the role of the combination used in the previous period. That is, there are no large differences between using a particular work/care combination in period *t* and be on income support and using that same work/care combination in period *t* but *not* be on income support when it comes to the care/work combination chosen in period *t*+1. The role that income support receipt plays is that it increases the probability of not being in work in period *t*+1, irrespective of the particular care/work combination chosen in period *t*.

Education

The role of education is best expressed by comparing year 11 or below with a degree or diploma. Comparing the lowest with the highest educational level shows about a 10 percentage points swing in the probability of not being in work in period *t*+1. The reduced probability of not being in work for highly educated mothers is shifted towards a higher probability of working and using care, but not the probability of working without using care. This latter option, to work without using care, is unaffected by educational attainment.

Children

The role of an extra child is different depending on the age of the child. In terms of the probability of not being in work in period *t+1*, this is hardly affected by having an extra child. Having an extra child aged between 10 and 14 lowers the probability of working and using formal care (with or without informal care) and increases the probability of working without using care. This contrasts nicely with the youngest child being less than 3 which lowers the probability of being in work

without using care and increases the probability of using either formal or informal care and working.

Age (of the mother)

Younger mothers are predicted to be more likely to work and use informal care only than older mothers, who are more likely to work without using care.

A: **Part 2 (increasing hours of work)**. Results from a model describing the response in hours of care following an increase in hours worked showed the following. The possible responses to an increase in hours worked are not to increase hours of care, increase only informal hours, increase only formal hours, or increase both formal and informal hours. These results apply only to those mothers who increased their hours and can not be extrapolated to hold for all mothers.

Income Support

Being on income support is associated with a 4.5 percentage point increase in the probability of increasing the hours of informal care used in response to an increase in hours worked, compared to not being on income support. Informal care may assist all mothers to increase hours worked, but it does so relatively more for mothers on income support.

Hours worked (in period *t*)

The more hours a mother is already working, the less likely a further increase can be accommodated without increasing either formal or informal care hours.

Children

The effects of children differ by the ages of the children. Having more children aged 0 to 4 or 5 to 9 years old are both associated with lower probabilities to absorb the increase in hours worked without increasing the hours of care. The strongest effects are found for having a youngest child under 3 years of age, reducing the probability of absorbing the increase in work hours without increasing care hours by 22.7

percentage points. It raises the probability of increasing only informal hours by 5.2 percentage points and increasing both formal and informal hours by 4.4 percentage points. In contrast, older children aged 10 to 14 make it easier to absorb the increase in hours worked without increasing hours of care.

Non-Australian born mothers

Foreign born mothers from main English speaking countries are less likely to absorb the increase in hours worked by using informal care and more likely to increase the hours of formal care used. If the mother was born in a non English speaking country she is less likely to increase informal hours, but also less likely to increase formal hours or both. Instead, she is more likely to absorb the increase in working hours without increasing hours of care.

1. Introduction

There is a clear link between labour force participation and childcare, but this link can take many forms. This is not surprising as there are many forms of childcare and different levels of labour market participation. This report makes a broad distinction between formal and informal childcare. The former includes long day care centres at work and family day care, whereas the latter includes care by relatives, friends or neighbours. Specifically, the report investigates three questions that are important to help inform the agenda to increase workforce participation of parents and help parents balance their work and family life. These three questions are:

1. Do income support recipients rely relatively more on informal care than formal care compared to parents not on income support?
2. To what extent does informal care assist in parents' decision to move from welfare to work or to increase hours of work? and
3. How does this vary with the age of children, number of children, family type and other demographic and socio economic characteristics?

The structure of the report follows the questions. After a brief review of previous related research, the first question is answered using data from the HILDA survey in section 2 and using data from the ABS Child Care Survey 2002 in section 3. Because question 2 is really a two part question, welfare to work transitions and increasing hours of work are examined in two separate sections 4 and 5. Last but not least, question 3 is answered using economic models that naturally follow from the descriptive analysis undertaken to answer question 2. The descriptive sections 4 and 5 match up with the modelling exercise in sections 6 and 7.

1.1. Previous Research

There exists a wide body of research on the nexus of (female) labour supply and childcare. This brief section discusses general findings from studies that investigate this nexus using Australian data. Some international evidence is included when the studies applied directly to the report, that is, focus on income support recipients or explicitly investigate informal versus formal childcare.

A research question that has received considerable attention is the role of childcare costs and its effects on labour force participation. Previous research for Australia by Doiron and Kalb (2005) addressed this question. They found childcare costs to reduce labour supply, but the effect overall was very modest. The effects were higher for single parents and mothers with low earning potential. These results imply that our population of interest, income support recipients, are expected to be more reliant on informal childcare arrangements since, on average, informal childcare is often provided at lower costs than formal childcare.

Cobb-Clark *et al.* (2000) and Schofield and Polette (1998) also investigated the role of costs and the nexus between labour force participation and childcare provisions. Schofield and Polette (1998) found that childcare costs and low levels of child care benefits were a significant barrier to entry because the extra childcare expenses for the household clawed back a large proportion of the income gain through work. Cobb-Clark *et al.* (2000) found that childcare was overstated as a barrier to entry although they indicated that their results needed to be interpreted with considerable caution due to the small number of observations.

One study that specifically linked the availability of informal care by grandparents to labour supply in the UK is Anne (2005). This paper asserts that evidence from the UK Time Use Survey suggests that grandparents' help has an important influence on whether mothers of young children do take employment, especially those with lower earnings potential. This help also enables them to work longer hours and earn more. Christine and Naomi (2006) undertook in-depth interviews with 78 lone parents in the UK and found that lone parents have an embedded preference for informal childcare. Hansen, Joshi and Verropoulou (2006) give a very detailed and complete overview of childcare use by UK mothers. They conclude that informal sources of care continue to play an important role in the way families balance work and parenthood in the Millennium, particularly for babies, and that families that use substantial formal care continue to be disproportionately those where parents are better off

and the mother works full-time. Using US data from the early 1990s Kimmel and Powell (2006) examine childcare choices and non-standard employment decisions by married mothers. Non-standard jobs are jobs that are outside the standard 9 to 5 framework, e.g. shift work. They found that mothers with non-standard employment are much less likely to use formal care and instead rely more on informal care in the form of relatives.

Both internationally and for Australia, the research into childcare is dominated by formal care and focuses on the effect of childcare costs. There seems to be a real gap in the literature with respect to the joint consideration of informal and formal care, especially in conjunction with income support recipiency.

2. The HILDA Survey

In part, the data used in this study come from the first five waves of the HILDA Survey, a longitudinal survey with a focus on work, income and family issues that has been following a sample of Australians every year since 2001. Described in more detail in Goode and Watson (2006), the HILDA Survey began with a large national probability sample of Australian households occupying private dwellings. All members of those responding households in wave 1 form the basis of the panel to be pursued in each subsequent wave (though interviews are only conducted with those household members aged 15 years or older), with each wave of interviews being approximately one year apart.[1] Like other household panel surveys conducted in other countries, the sample is extended each year to include any new household members resulting from changes in the composition of the original households. With the exception of children of original sample members (OSMs) and persons who have a child with an OSM, however, these new sample members only remain in the sample for as long as they live with an OSM.

After adjusting for out-of-scope dwellings and households and multiple households within dwellings, the number of households identified as in-scope in wave 1 was 11,693. Interviews were completed with all eligible members at 6872 of these households and with at least one eligible member at a further 810 households. Within the 7682 households at which interviews were conducted, 13,969 persons were successfully interviewed.

[1] The interviewing period runs from late August until February the following year. The bulk of interviews, however, are completed in the months of September, October and November.

Details about the evolution of the responding sample over the first five waves are provided in Table 1. The key statistic in this table is the number of people interviewed in all five waves – 10,392, or 74 percent of those persons initially interviewed in wave 1.

Note that while the original sample was intended to be representative of all persons in Australia living in private dwellings (with the exception of a small number of people living in the remotest parts of the country), relatively high levels of non-response in wave 1 together with subsequent sample attrition raises the spectre of response bias. Included in the dataset, however, is a set of population weights designed to correct for both sampling and response bias. These weights are used whenever population estimates are being reported.

Table 1 Individual Response (N) by Wave, HILDA Survey

Wave first interviewed	*Wave 1*	*Wave 2*	*Wave 3*	*Wave 4*	*Wave 5*
Wave 1	13969	11993	11190	10565	10392
Wave 2	-	1048	705	594	572
Wave 3	-	-	833	543	482
Wave 4	-	-	-	706	494
Wave 5					819
TOTAL	13969	13041	12728	12408	12759

Source: HILDA Survey, release 5.1.

2.1.1. Defining employment and non-employment related care

Childcare information is separately identified as childcare use when both parents are working and childcare use when not both parents are working. The former is denoted as employment related care. The latter is denoted as non-employment related care. This latter category captures childcare use so parents can look for work and/or study, but also for personal reasons unrelated to study or job search. The fact that childcare used to facilitate job search is classified as non-employment related care should be kept in mind when interpreting childcare use by income support recipients.

2.1.2. Defining formal and informal care

The HILDA data collects a series of childcare related variables for households with children under 15 years of age present. Information is collected separately for children in school and children not yet in school. For children already in school information is collected on childcare use during school term and during school holidays. For all children childcare information is also separately identified as employment or non-employment related care.

For the purpose of this report the various forms of childcare used are reclassified to be formal or informal. This reclassification[2] is displayed in Table 2 below. The childcare questions have undergone some subtle changes from wave 1 to 2 and from wave 2 to later waves. A full detailed overview of the changes by waves is presented in Appendix A, but the most

Table 2 Reclassification of childcare use in formal and informal care

Childcare use reclassified as INFORMAL	*Childcare use reclassified as FORMAL*
BS: brother or sister	OS: out of hours care at child's school
WP: comes to my or my partner's workplace	OE: out of hours care elsewhere
RU: relative who lives with us	FD: family day care
RE: relative who lives elsewhere	FC: formal out of school hours care3
GU: grandparent who lives with us[4]	WD: long day care centre at workplace
GE: grandparent who lives elsewhere	PD: private or community long day care centre
AU: other relative who lives with us	KP: kindergarten/preschool
AE: other relative who lives elsewhere	
FO: friend coming to our home	
FT: friend staying in their home	
PS: paid nanny or babysitter	

important differences are twofold. First, from wave 4 onwards care by a relative has been split up to capture care by grandparents and care by relatives other than grandparents. Second, in

[2] Only a handful of observations are lost because they had no intuitive classification. These are children who stay in boarding schools or whose childcare arrangement is classified as 'other'.
[3] This category replaced the categories out of hours care at child's school (OS) or elsewhere (OE) from wave 4 onwards
[4] The split in the collection of care by a grandparent or other relative is for wave 4 onwards. For the first three waves the categories where (RU) relative who lives with us and (RE) relative who lives elsewhere.

wave 1 non-employment related childcare use was only collected for households in which both caregivers were employed whereas from wave 2 onwards non-employment related care was collected for all households with children 14 or under. Figure 1 contains a diagram to graphically present the necessary conditions, e.g. having school aged children, under which the different forms of childcare are collected.

2.1.3. Defining income support status

An individual is classified as an income support recipient if he is currently receiving a positive amount of (post-imputed) government pension or benefits ("_bncaupi"). Alternatively, one could apply a stricter definition and require a minimum 'x' percentage of total income to consist of income from government pension or benefits before one is classified as an income support recipient.

2.1.4. Defining school-aged and pre-school aged

The HILDA data does not have an indicator available for each household to tell whether the child attends school or not. For those families that do use childcare the survey asks whether they have any children in school and/or any children not yet in school as a screener question to determine what childcare information needs to be collected. Unfortunately, if families do not use childcare one can not be certain whether children attend school or not. For the purpose of this report, in order to compare families that do use care with families that do not use care on an equal basis, a child is assumed to be in school if he or she is 5 years or older. A child under 5 years of age is assumed not to be in school. This is a close approximation of the various school starting ages that differ by State and over time.

Figure 1: Conditions for Childcare Information Collection

***For all waves, childcare information is only collected if there are children aged less than 15 in the household**

Wave 1

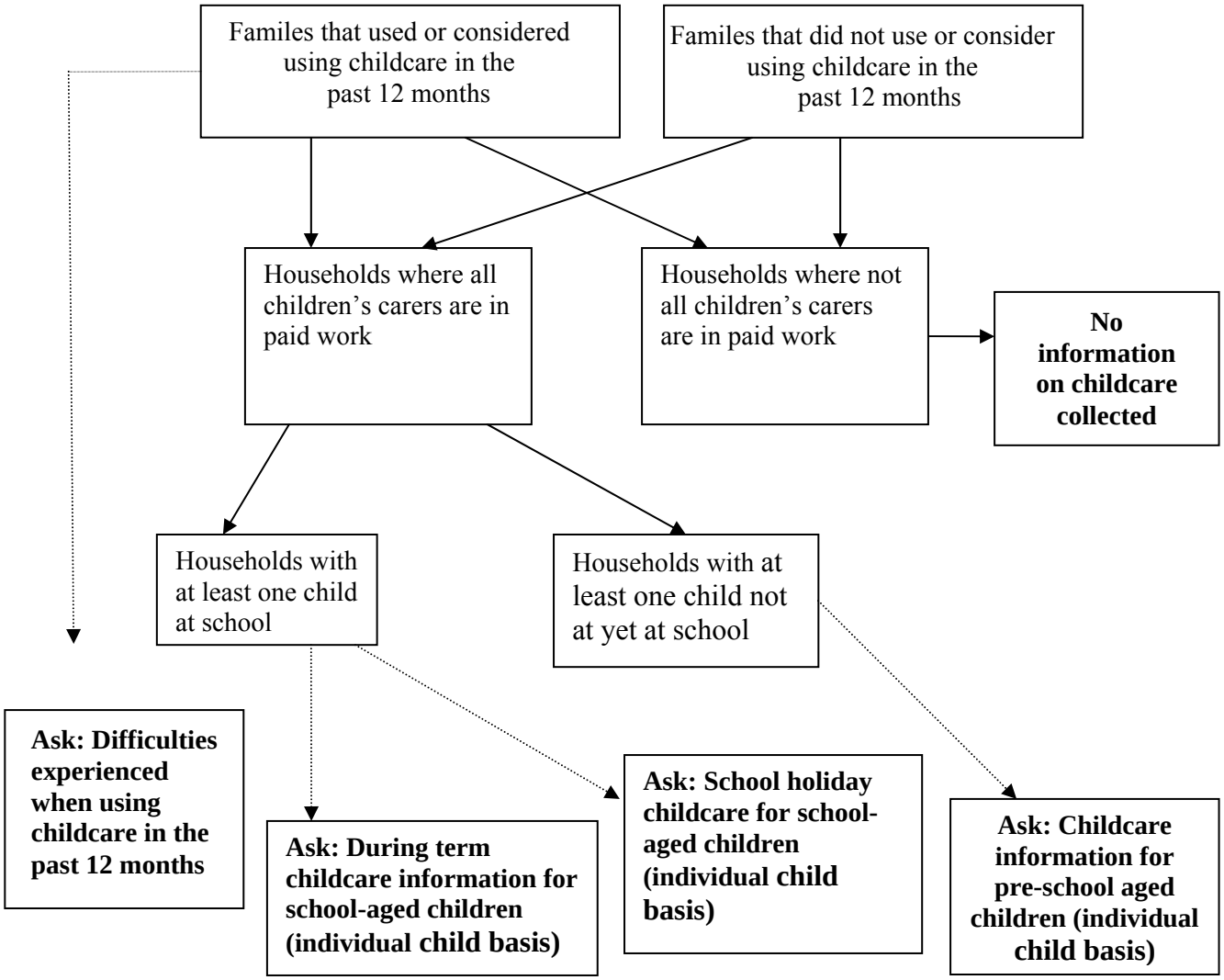
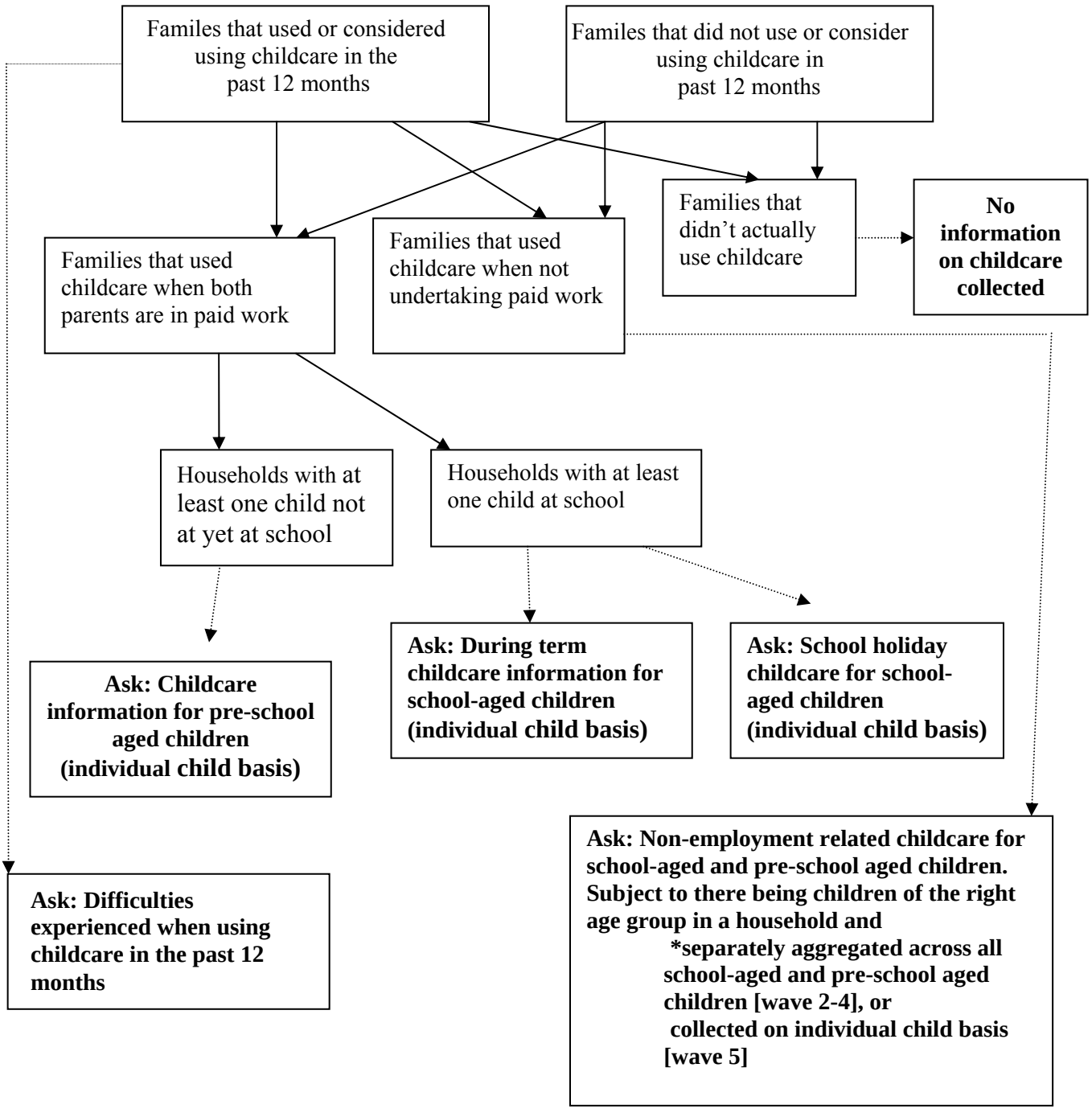


Figure 1: Conditions for Childcare Information Collection (Continued)

Wave 2-5



2.2. Childcare usage and income support recipient status

Childcare is collected at the household level. To avoid double counting only mothers are selected. That is, female partners of couples and lone parents with children under 15 years of age. For each wave the usage of formal and informal childcare, both for employment and non-employment related purposes, has been compared for income support recipients and non income support recipients. Table 3 and Table 4 display this information for children in school and for children not yet in school, respectively.

2.2.1. Children in school

Table 3, which summarises childcare use for children in school, shows that the ratio of mothers receiving income support to mothers not receiving income support is approximately 1 to 3. Furthermore, the sample sizes and the childcare usage rates for the different types of care are fairly constant over the five waves of HILDA. A few observations stand out from Table 3 that will be briefly discussed. As is apparent from the second last column in Table 3, formal childcare for children in school for non-employment related reasons is very rare, with at most 4 percent of mothers with children 5 years or older using this form of care. This is true irrespective of whether the mother receives an income support payment or not. A further observation is that informal care, be it employment related or non-employment related, is always more prevalent than the formal counterpart. A third notable observation is that the usage rates of formal employment related care and informal non-employment related care are very similar for mothers on income support and mothers not on income support. Where usage rates of care for children in school differ by income support status is informal care. Mothers receiving an income support payment are approximately half as likely to use informal employment related care as mothers not receiving income support payments. Furthermore, mothers receiving an income support payment have approximately equal childcare usage rates for informal employment related care and informal non-employment related care, both at roughly 16 percent.

Table 3 Childcare use for children in school (excluding vacation care) for couple and lone parent households with school-aged children

		Childcare use for children in school			
		Employment related care		Non-employment related care	
	N	formal	informal	formal	informal
Wave 1					
Receiving no income support	1,102,947	9.79	24.31	X	X
Receiving any income support	465,879	7.38	10.97	X	X
Wave 2					
Receiving no income support	1,175,816	12.04	26.88	1.65	15.56
Receiving any income support	434,612	9.13	16.70	4.00	14.23
Wave 3					
Receiving no income support	1,198,449	10.69	24.63	0.92	15.02
Receiving any income support	436,749	9.20	16.86	1.54	16.24
Wave 4					
Receiving no income support	1,237,310	10.83	22.92	0.40	13.82
Receiving any income support	490,183	8.08	12.80	2.47	16.26
Wave 5					
Receiving no income support	1,185,690	11.64	23.46	0.57	13.48
Receiving any income support	458,589	8.21	16.28	3.76	12.24

Notes: Computations based on females in couple households or lone parent families, with children under 15 years of age and at least one child 5 years of age or older. Population weighted using person weights.

Reclassification of childcare into employment and non-employment according to Table 2. Non-employment related care in wave 1 is only defined for families in which both caregivers work and has been denoted by X due to lack of comparability with waves 2 to 5.

Income support recipient status is defined as receiving any government pension or benefit.

HILDA Survey, release 5.1

As a final point, the ratios of informal to formal employment related care do not differ much by income support status. For mothers on income support this ratio is slightly less than two. For mothers not on income support it is slightly larger than two. Thus, in terms of *relative* dependence, income support recipients are not more or less dependent on informal employment related care than non income support recipients.

2.2.2. Children not yet in school

Table 4 below summarises childcare use for children not yet in school. Informal childcare for non-employment related reasons for children not yet in school is, in contrast to this type of care for children in school, quite common. The usage rate of this type of care is also much higher, about two to three times as high, for mothers receiving an income support payment. This is partly explained by the fact that non-employment related care includes care to facilitate job search, in addition to facilitating training and education activities.

Table 4 Childcare use for children not yet in school (excluding vacation care) for couple and lone parent households with pre-school aged children

		Childcare use for children not yet in school			
		Employment related care		Non-employment related care	
	N	formal	informal	formal	informal
Wave 1					
Receiving no income support	735,419	28.72	21.43	X	X
Receiving any income support	315,477	14.16	8.42	X	X
Wave 2					
Receiving no income support	775,009	29.81	24.34	13.72	22.33
Receiving any income support	293,190	19.36	11.55	29.38	24.22
Wave 3					
Receiving no income support	813,645	28.65	21.16	15.54	23.16
Receiving any income support	291,809	15.35	10.46	23.38	21.37
Wave 4					
Receiving no income support	783,603	32.27	27.27	12.59	20.40
Receiving any income support	303,490	9.15	12.46	32.25	22.28
Wave 5					
Receiving no income support	786.441	36.38	28.40	13.86	22.75
Receiving any income support	273,452	14.28	10.83	21.20	23.59

Notes: Unit of analysis is females in couple households or lone parent families with at least one child less than 5 years of age. Population weighted using person weights.

Reclassification of childcare into employment and non-employment according to Table 2. Non-employment related care in wave 1 is only defined for families in which both caregivers work and has been denoted by X due to lack of comparability with waves 2 to 5.

Income support recipient status is defined as receiving any government pension or benefit.

HILDA Survey, release 5.1

A few other notable observations stand out which will be briefly highlighted. Formal employment related care is the most frequent type of care used by mothers with children under 5 who do not receive an income support payment. The usage rate is approximately 30 percent, roughly double the usage rate by mothers who do receive an income support payment. Mothers not receiving an income support payment are also more than twice as likely to use informal employment related care as mothers who do receive an income support payment. The ratio of formal to informal employment related care is approximately 1.5 for mothers on income support and slightly smaller than that for mothers not on income support. In *relative* terms, formal employment related care is more predominant for income support recipients than it is for non income support recipients.

A final observation is that the usage rates of informal non-employment related care are approximately the same for mothers receiving an income support payment and mothers not receiving an income support payment, at just over 20 percent. This rate is higher than the rate of informal non-employment related care for children in school, which was roughly 15 percent (Table 3).

2.2.3. Childcare usage and income support recipient status: conclusions

Table 3 and Table 4 summarised childcare usage rates in HILDA. It distinguished between mothers with school-aged children (i.e. aged 5 and up) and mothers with pre-school aged children (i.e. aged less than 5). It also distinguished between mothers receiving an income support payment and mothers not receiving such payment.

Mothers receiving an income support payment always had lower usage rates of employment related care, be it formal or informal, than mothers not receiving an income support payment. This is to be expected because mothers on income support have lower employment rates than mothers not on income support. One needs to be in work in order to use employment related childcare.

Mothers receiving an income support payment were more likely to use non-employment related care, albeit that formal non-employment related care for children in school was almost non-existent. This higher use of non-employment related care could have been in part driven by the relatively higher proportion of mothers on income support looking for work compared to mothers not on income support.

3. ABS Child Care Survey 2002

The ABS Child Care Survey is collected as a supplement to the Labour Force Survey. It is a cross-sectional survey and collects data on childcare use for approximately 10,000 children under 12 years of age, for up to two children per household. It was collected in June 2002 as a supplement to the Labour Force Survey.

3.1.1. Defining formal and informal care

The reclassification of childcare using HILDA data was chosen to reflect as closely as possible the definition used in the ABS Child Care Survey. In it, formal care is defined as regulated care away from the child's home. The main types of formal care are before and/or after school care, long day care, family day care, occasional care and preschool. Informal care is defined as non-regulated care, arranged by a child's parent/guardian, either in the child's home or elsewhere. It comprises care by (step) brothers or sisters, care by grandparents, care by other relatives (including a parent living elsewhere) and care by other (unrelated) people such as friends, neighbours, nannies or babysitters.

3.1.2. Defining income support status

The ABS Child Care Survey collects information on receipt of government pensions, benefits and allowances, but this includes Family Tax Benefits. We can thus not use receipt of a positive amount of pensions, benefits, or allowance to identify income support receipt status. Instead, we will classify those respondents as income support recipients who report that their principle source of cash income is the government. However, it should be noted that this is still an imperfect measure. This, plus the fact that the ABS childcare survey collects information for up to two children under 12 years of age per household, whereas in HILDA information is collected for all children under 15 years of age, needs to be kept in mind when comparing childcare usage rates from both surveys.

3.1.3. Defining employment and non-employment related care

Employment related formal and informal care are based on the variables "ARATTFCA" and "ARAINFCA", respectively. These variables indicate whether the formal and informal care were used for work. It does not necessarily have to be the main reason. As long as it is used for work it is classified as employment related. Childcare used for any other reason is classified as non-employment related care.

3.2. Childcare usage and income support recipient status

The ABS Child Care Survey is a cross sectional, or snapshot, dataset and does not follow individuals over time. The data was collected in June 2002 and can thus, time-wise, be best compared to HILDA wave 2 which was collected in the second half of 2002. We will first compare childcare usage rates for school-aged and pre-school-aged children in the ABS Child Care Survey and then contrast the findings to those from the HILDA survey.

3.2.1. Children in school

Table 5 below summarises the childcare usage rates for school-aged children and contrasts the rates for mothers whose main source of cash income is a government payment with the rates for mothers whose main source of cash income is not a government payment.

Table 5 Childcare use for children aged 5 to 11

Government payment is mother's main source of cash income		Childcare use for children aged 5 to 11			
		Employment related care		Non-employment related care	
	N	formal	informal	formal	informal
No	868,727	13.19	22.52	3.90	17.08
Yes	951,669	4.72	7.59	5.44	17.97

Notes: Unit of analysis is the child in couple households or lone parent families with children under 12 years of age present. Population weighted using child weights. Child Care Survey 2002 (ABS)

As can be deduced from the number of children whose mother's main source of income is a government payment, this classification does not separate income support receiving mothers from non income support receiving mothers. In fact, for most mothers in the ABS Child Care Survey the main source of cash income is a government payment.

In terms of usage rates, mothers whose main source of cash income is from a non-government source, which includes income from their own salary and wages, are about three times as likely to use employment related care (both formal and informal) than mothers whose main source of income is a government payment. In addition, usage rates of non-employment related care do not differ by the main source of income for the mother, albeit with formal non-employment related care for children aged 5 or up being relatively rare (at about 5 percent).

3.2.2. Children not yet in school

Table 6 below summarises the childcare usage rates for children under 5 years of age. There are large differences compared with childcare for children aged 5 or over. For instance, the usage rates for non-employment related formal care, at about 30 percent, are much higher for children under 5 than for children 5 and over (second last column in Table 6 and Table 5, respectively). The usage rates for informal non-employment related care are only slightly higher for children under 5 than for children 5 and over. What formal and informal non-employment related care have in common, irrespective of the age of the child, is that there is no discernable difference in the usage rates between mothers whose main source of cash income is a government payment and mothers whose main source of income is not a government payment.

Table 6 Childcare use for children aged less than 5

Government payment is mother's main source of cash income		Childcare use for children aged less than 5			
		Employment related care		Non-employment related care	
	N	formal	informal	formal	Informal
No	503,214	31.97	29.11	28.14	21.90
Yes	728,929	9.15	7.67	33.91	23.88

Notes: Unit of analysis is the child in couple households or lone parent families with children under 12 years of age present. Population weighted using child weights. Child Care Survey 2002 (ABS)

3.2.3. Comparing the ABS Child Care and HILDA surveys

As has been made clear earlier, a proper comparison of the information collected in the two surveys is not possible due to inability to obtain comparable income support receipt indicators.[5] However, the usage rates of the different forms of care are remarkably similar.

For children under 5 years of age, all but two forms of care have approximately the same usage rates in the ABS and the HILDA surveys. The two exceptions are formal employment related care by mothers on income support and formal non-employment related care by mothers not on income support. First, formal employment related care for children under 5 years of age is about 15 to 20 percent in HILDA for mothers receiving an income support payment, but only 9 percent in the ABS survey for mothers whose main source of cash income is a government payment. Second, formal non-employment related care for children under 5 years of age by mothers not on income support is about 14 percent in HILDA in contrast to about 28 percent in the ABS survey.

For children aged 5 or over, the usage rates for the different forms of care are even more similar across the two surveys. The only notable exception is that the usage rate for informal employment related care for mothers on income support is somewhat higher in the HILDA survey (about 16 percent) compared to the ABS survey (about 8 percent).

4. Childcare, income support and labour market participation

So far, the information summarised in HILDA and the ABS Child Care Survey 2002 has only been able to determine whether mothers on income support use more or less informal care than mothers not on income support. This answers the first of the three major questions asked in this report: "Do income support recipients rely relatively more on informal care than formal care compared to parents not on income support?" The answer, based on average usage rates, is no. We found that mothers on income support are always (much) less likely to use employment related care, be it formal or informal, but the usage rates of non-employment

[5] Childcare information only being collected in the ABS survey for children under 12 years of age is not an issue. The HILDA data could easily be restricted to the same age as opposed to reporting information collected for all children under 15.

related care, be it formal or informal, do not differ by income support recipiency status.[6] Even when comparing the ratio of informal to formal employment related care by income support status we find either no relative prevalence of informal care for income support recipients (in the case of children aged 5 and up) or a relative preference for formal employment related care (in the case of children less than 5 years of age).

The second of three major questions is "To what extent does informal care assist in parents' decision to move from welfare to work or to increase hours of work?" This two part question, as it pertains to changes in labour force status, can only be examined using longitudinal data. For the remainder of the report we thus limit our analysis to the information collected in the five waves of the HILDA survey. Another important implication of focussing on labour force participation, welfare to work transitions and childcare is that logic dictates that childcare should be limited to employment related childcare.

4.1.1. Combinations of childcare, income support and labour market status

The number of possible combinations of childcare, income support and labour market status quickly grows. One can be on income support or not, and employed or not. This already results in four possible combinations of income support and work. On top of that, no childcare can be used, only formal care can be used, only informal care can be used or both formal and informal care can be used. By limiting childcare to be employment related care, when a person is not working childcare can not be used. However, there are still ten different possible combinations of childcare use, income support and employment status. They are:

1. (F) Use formal care only, be in work, and not be on income support
2. (F_is) As 1) but instead be on income support
3. (I) Use informal care only, be in work, and not be on income support
4. (I_is) As 3) but instead be on income support
5. (FI) Use both formal and informal care, be in work, and not be on income support

[6] The only exception is formal non-employment related care for children not yet in school in HILDA, with mothers receiving an income support payment much more likely to use this type of care than mothers not receiving an income support payment (20 to 30 percent for mothers on income support versus about 15 percent for mothers not on income support).

6. (FI_is) As 5) but instead be on income support
7. (W) Do not use any care, be in work, and not be on income support
8. (W_is) As 7) but instead be on income support
9. (NW) Not be in work and not be on income support
10. (NW_is) As 9) but instead be on income support

In principle, from one wave to the next, an individual can move from any of the ten different combinations of care, work and income support to another combination. In the appendix the unabbreviated transition tables are reported in absolute and relative numbers. For the transition from welfare to work the key transitions are transitions out of combination 10: Not be in work and be receiving an income support payment. A transition out of combination 10 to any of the in-work combinations 1 through 8, is considered a welfare-to-work transition, even if the mother continues to receive an income support payment. The transition table also allows for a much stricter interpretation of transitions from welfare to work that requires a transition from combination 10) to a combination of employment and no income support receipt (i.e. combinations 1, 3, 5 and 7). In this report a transition from welfare to work is defined using the broader definition.

However, in order to maintain an overview and focus on the role of informal care in aiding the transition from welfare to work the ten options are further reduced to five. They are:

i. Using formal care only and be in work (combination 1 + 2)
ii. Using *any* informal care and be in work (combination 3+4+5+6)
iii. Using no care but be in work (combination 7+8)
iv. Not be in work and not be on income support (combination 9)
v. Not be in work but be on income support (combination 10)

4.1.2. Welfare-to-Work transitions

A welfare-to-work transition is any transition from the 'not work and on income support' state (combination v)) to any of the in-work states (combinations i) through iii)). To determine what role informal childcare plays in facilitating these welfare-to-work transitions for income support recipients, these transitions need to be compared to the equivalent transitions originating from the 'not work and *not* on income support' state. That is, transitions out of combination iv) to any of the combinations i) through iii).

Table 7 below displays the transition matrix for the five combinations. The table represents transitions from wave *t* (rows) to wave *t*+1 (columns). It pools all mothers with any children under 15 for whom we have two consecutive observations and is thus an average across all waves in HILDA. It also combines all care for children in school and children not yet in school. In the next two sections results for children in school and children not yet in school are presented.

The percentages in Table 7 are row percentages and the table should be read row by row. Each row adds to 100%. For example, taking the first row, 52.1 percent of mothers who are working and using formal care only in wave *t* are still in this same state in wave *t*+1, 23.8 percent are now (also) using some informal care and 15.3 percent are still working but no longer use any care.

Table 7 shows that there is considerable persistence in the chosen combination of care, labour market and income support. This is expressed by the relatively large diagonal elements that indicate more than half the mothers remain in the same state from one wave to the next.[7] For the welfare-to-work transitions only the last two rows are of interest. If the mother is not working and not on income support in wave *t* she has a 60.9 percent chance of remaining in that state and a 12 percent chance of remaining out of the labour force but to now receive income support in wave *t*+1. This implies a 27.1 percent chance of making the transition from non-work to work for mothers not receiving an income support payment (100% - 60.9% - 12% = 27.1%). In contrast, if the mother is not working and on income support in wave *t* she has a 17.1 percent chance of making a non-work to work transition (which, in this case, because the mother is on income support, is a welfare-to-work transition).

[7] However, one can also argue the reverse, by saying that almost half the mothers *do* change state.

Table 7 Income support, labour market participation and childcare use for mothers with any school or pre-school aged children (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)	Not working but not on income support (t+1)	Not working and on income support (t+1)	N
Using formal care only and working (t)	52.1%	23.8%	15.3%	6.4%	2.3%*	810
Using any informal care and working (t)	9.8%	55.0%	26.3%	6.4%	2.5%	1721
Using no care but working (t)	4.5%	19.3%	65.8%	7.5%	2.8%	1815
Not working (t)						
….but not on income support	5.9%	10.2%	11.1%	60.9%	12.0%	1682
….and on income support	2.6%	6.0%	8.6%	17.0%	65.9%	1204

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

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It is thus shown that the probability of a non-work to work transition for mothers not on income support is higher than the probability of a welfare-to-work transition for mothers on income support. However, it could still be the case that those mothers on income support who do make the transition rely *relatively* more on informal care than mothers not on income support. To investigate this last hypothesis we rescale the percentages in the box highlighted in the bottom left of Table 7 so that the rows once again sum to 100. Doing so will express the use of care conditional on having made the transition from non-work to work. It shows that mothers on or off income support are equally likely to use informal care to facilitate the transition to work (conditional on making the transition). For both mothers on and off income support, the transition is more likely to include some informal care than only formal care, but the most likely scenario is to enter the labour market but not use care.

Table 8 Relative use of informal care to transition from non-work to work by income support status for mothers with any school or pre-school aged children (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)
Not working (t)			
….but not on income support	5.9%	10.2%	11.1%
….and on income support	2.6%	6.0%	8.6%
RESCALE TO 100%			
Not working (t)			
….but not on income support	21.7%	37.5%	40.8%
….and on income support	15.1%	34.9%	50.0%

We can summarise the nexus between childcare, income support and non-work to work decisions as follows: Mothers not in work and on income support are less likely to be in work in the next period, compared to mothers not in work and not on income support. Conditional on making the transition to work, mothers on income support are *more* likely to not use care, *less* likely to use only formal care and *equally* likely to use some informal care, compared to mothers not on income support.

4.1.3. Welfare-to-Work transitions: Children in school

Because the decision to make the transition from welfare to work may be different when school-aged children and pre-school aged children are present, the analysis of the previous section is repeated here for the two subgroups of mothers: mothers with children aged 5 and over and mothers with children less than 5 years of age.[8] The corresponding formal and informal childcare, in turn, refer to childcare for children in school and children not yet in school.

Mothers with children aged 5 and over who are not working and not on income support, have a probability of 23.6 percent to be in work in the next period (100% - 63.2% - 13.2% = 23.6%). This is only a little bit higher than the 17.2 percent probability for similar mothers who are on income support to make the transition from welfare to work (100% - 15.9% - 66.9% = 17.2%).

When conditioning on having made the transition and rescaling the row percentages in the highlighted box to again sum to 100 (Table 10) it is shown that, in making the transition to work, mothers on income support are *less* likely to use no care for children in school, *more* likely to use some informal care for children in school, and about *equally* likely to use only formal care for children in school, compared to mothers not receiving an income support payment.

[8] Note that these subgroups are not mutually exclusive. A mother with children of school age and pre-school age will be included in both subgroups.

Table 9 Income support, labour market participation and childcare for children in school for mothers with children aged 5 and over (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)	Not working but not on income support (t+1)	Not working and on income support (t+1)	N
Using formal care only and working (t)	50.6%	25.3%	18.2%	3.8%	2.0%*	391
Using any informal care and working (t)	5.4%	53.1%	34.4%	4.4%	2.6%	1225
Using no care but working (t)	3.3%	18.3%	69.5%	6.4%	2.5%	1866
Not working (t)						
….but not on income support	2.3%	5.8%	15.5%	63.2%	13.2%	1037
….and on income support	1.2%*	5.7%	10.3%	15.9%	66.9%	881

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

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Table 10 Relative use of informal care to transition from non-work to work by income support status for mothers with children aged 5 and over (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)
Not working (t)			
….but not on income support	2.3%	5.8%	15.5%
….and on income support	1.2%*	5.7%	10.3%
RESCALE TO 100%			
Not working (t)			
….but not on income support	9.7%	24.6%	65.7%
….and on income support	7.0%	33.1%	59.9%

4.1.4. Welfare-to-Work transitions: Children not yet in school

Table 11 and Table 12 display transitions for mothers with at least one child under 5 years of age. Recall that childcare use now refers to childcare for children not yet in school. The probability of making the transition to work for mothers not on income support and mothers on income support are now 27.7 percent and 15.8 percent, respectively. When conditioning on having made the transition and rescaling the percentages in the highlighted box to again sum to 100 by row it is shown that mothers on income support with at least one child under 5 years of age are less likely to use any care for children not yet in school, compared to mothers not on income support.

Table 11 Income support, labour market participation and childcare use for children not yet in school for mothers with children aged less than 5 (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)	Not working but not on income support (t+1)	Not working and on income support (t+1)	N
Using formal care only and working (t)	53.1%	14.4%	21.5%	8.7%	2.3%*	576
Using any informal care and working (t)	16.1%	50.1%	21.3%	10.1%	2.4%*	676
Using no care but working (t)	14.2%	20.3%	47.7%	13.3%	4.5%	444
Not working (t)						
….but not on income support	7.6%	11.2%	9.0%	60.0%	12.3%	1165
….and on income support	3.8%	4.4%	7.7%	19.9%	64.3%	689

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

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Table 12 Relative use of informal care to transition from non-work to work by income support status for mothers with children aged less than 5 (row percentages)

	Using formal care only and working (t+1)	Using any informal care and working (t+1)	Using no care but working (t+1)
Not working (t)			
….but not on income support	7.6%	11.2%	9.0%
….and on income support	3.8%	4.4%	7.7%
RESCALE TO 100%			
Not working (t)			
….but not on income support	27.3%	40.3%	32.4%
….and on income support	23.9%	27.7%	48.4%

5. Childcare usage, income support recipient status and increasing hours of work

In the preceding section the role of informal childcare in facilitating the transition from welfare to work was analysed. This was only a partial answer to the question "To what extent does informal care assist in parents' decision to move from welfare to work or to increase hours of work?" Of course, to go from zero hours of work to any positive number of hours of work is technically an increase in working hours. However, in this section we restrict our sample to mothers in work at period t who increase their hours worked in period $t+1$. That is, they are employed in two consecutive waves and have increased their hours. This increase in hours worked can coincide with four different scenarios: no increase in the hours of formal or informal care used, an increase in formal hours only, an increase in informal hours only, or an increase in both formal and informal hours. In the event that an increase in hours worked coincides with a decrease in hours of childcare used, this is coded as 'not increasing hours of care'.

Table 13 below distinguishes the relative frequency by which the increase in hours worked is accompanied by the four different hours of care responses. It is displayed for all mothers with any school-aged or pre-school aged children and the hours of care are summed over all children, irrespective of being in school or not yet in school. By cross tabulating with income support recipiency it is possible to distinguish the response in hours of care used as a result of the increase in hours worked for income support recipients and non income support recipients. We do find that, overall, an increase in hours worked is more likely to be accompanied by an increase in only informal hours of care for mothers on income support, compared to mothers not on income support (26.1 percent versus 18.4 percent, respectively). In contrast, mothers on income support are less likely to not increase hours of care following an increase in hours worked, compared to mothers not on income support (54.2 percent versus 60.7 percent, respectively).

Table 13 Incidence of an increase in total hours of care for all children following an increase in hours worked for mothers with children aged under 15 (column percentages)

	Not receiving an income support payment	Receiving an income support payment	Total
no increase in hours of formal or informal care used	60.7 %	54.2 %	59.8 %
increase in formal hours only	15.2 %	15.6 %	15.3 %
increase in informal hours only	18.4 %	26.1 %	19.5 %
increase in both formal and informal hours	5.7 %	4.2 %*	5.5 %
Total (N)	1,437	238	1,675 %
Total (%)	100 %	100 %	100

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

Because there is an ex ante concern that the experiences for mothers with children not yet in school and children in school may be different, we repeated the construction of Table 13 for the two subgroups of mothers. Table 14 displays the results for mothers who are employed in two consecutive waves, who increase their hours worked and who have children aged 5 or over in both waves. Table 15 in turn restricts the sample to mothers who are employed in two consecutive waves, who increase their hours worked and who have children aged less than 5 years in both waves.

Although statistical precision is lost because of the smaller cell sizes, the overall pattern is the same as in Table 13. That is, an increase in hours worked is more likely to be accompanied by an increase in only informal hours of care for mothers on income support, compared to mothers not on income support.

Table 14 Incidence of an increase in hours of care for children in school following an increase in hours worked for mothers with children aged 5 or up (column percentages)

	Not receiving an income support payment	Receiving an income support payment	Total
no increase in hours of formal or informal care used	69.7 %	63.3 %	68.8 %
increase in formal hours only	6.9 %	8.2 %*	7.1 %
increase in informal hours only	20.2 %	26.5 %	21.1 %
increase in both formal and informal hours	3.2 %	2.0 %*	3.0 %
Total (N)	1,152	196	1,348
Total (%)	100 %	100 %	100 %

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

In the case of mothers on income support with children under 5 years of age, they are also more likely to increase only formal hours of care for children not yet in school (at 41.4 percent versus 36.3 percent; Table 15). In contrast, mothers on income support are less likely to not increase hours of care following an increase in hours worked, compared to mothers not on income support, irrespective of whether one focuses only on care for children in school or children not yet in school.

Table 15 Incidence of an increase in hours of care for children not yet in school following an increase in hours worked for mothers with children under 5 years of age (column percentages)

	Not receiving an income support payment	Receiving an income support payment	Total
no increase in hours of formal or informal care used	40.1 %	30.0 %	38.8 %
increase in formal hours only	36.3 %	41.4 %	37.0 %
increase in informal hours only	14.5 %	20.0 %*	15.2 %
increase in both formal and informal hours	9.0 %	8.6 %*	9.0 %
Total (N)	476	70	546
Total (%)	100 %	100 %	100 %

Notes: * denotes cell sizes less than 20. Results should be interpreted with caution.

The finding that a mother's increase in hours worked does not always lead to an increase in hours of care used warrants some extra attention. When looking at all mothers and aggregating hours of care for all children in the household (Table 13) an increase in hours worked without an increase in hours of care could occur if increased hours of care for younger children are offset by reduced hours of care for older children. However, when analysing the increase in hours of care for children not yet in school and the hours of care for children in school separately (Table 14 and Table 15), there still remains a sizable proportion of mothers that do not increase hours of care following an increase in hours worked. It is thus likely that other factors also play a role, such as the ability to increase hours without using more hours of care if a partner is present (e.g. by the partner working less). Still other factors could be simple measurement issues such as the increase in hours worked being very small (e.g. one hour a week) or respondents not accurately reporting their actual hours of care or work (e.g. rounding). A thorough investigation was not possible in the limited time available and would take some of the focus away from the main research questions.

6. Models of childcare use, income support recipient status and workforce participation

In this section we develop a model for childcare use and workforce participation. A model for childcare use and increasing hours worked is developed in the subsequent section.

The decision to be in work typically consists of choosing a combination of care and work. In the model, the four combinations are:

1. To use formal care only and be in work
2. To use informal care only and be in work
3. To use both formal and informal care and be in work
4. To not use any care, but be in work
5. To not be in work

Each of the combinations has a value to the individual denoted by Y^*_{jit}. This value is not observed. What is observed is the outcome of the choice, denoted by Y_{jit}. The outcome of the choice is the dependent variable in the model. Let Y_{jit} equal to 1 denote that individual *i* chooses combination *j* in period *t*. Y_{jit} is 0 otherwise. Explanatory variables, which are factors that influence the choice, consist of personal and family characteristics of individual *i.* Examples of explanatory variables are the respondent's age, educational attainment, and the number and ages of children in the household. Let these explanatory variables be denoted by X_{it}. The model used is a dynamic multi-period multinomial logit model with random effects.

Formally, this model can be expressed as:

$$Y^*_{jit} = \sum_{k=1}^{5} \gamma_j Y_{kit-1} + X_{it-1}'\beta_j + \alpha_{ji} + u_{jit}$$

$$Y_{jit} = \begin{cases} 1 & \text{if } Y^*_{jit} \geq Y^*_{kit} \text{ for } j,k = 1,2,3,4,5 \\ 0 & \text{otherwise} \end{cases}$$

where j indexes the care and work combination, α_{ji} are the individual random effects and X_{it-1} are a set of personal characteristics and other control variables. It helps to think of this model starting from a standard logit model. The first extension is to expand the number of possible outcomes from two (i.e., work or not work) to more than two (in this case 5 outcomes: work and use formal care, work and use informal care, work and use both formal and informal care, work without using care, or not work). Next, the panel data allows inclusion of the combination chosen in the previous period on the right hand side making the model 'dynamic'. Finally, the 'random effects' model is simply a model with a random constant term. The inclusion of the random effects controls (imperfectly) for certain aspects of individuals that are not observed (e.g., drive, motivation, personal problems, preferences, etc.). These are collectively known as 'unobserved heterogeneity'. In contrast, *observed* heterogeneity represents all the characteristics that we do observe and control for, such as age and education. In a pure mechanical sense the random effects allow for a better fit of the model to the data.

By including on the right-hand side of the model indicators of income support recipiency, the effect of income support recipiency can be estimated. Income support recipiency status is also interacted with the combination of work and care used in the previous period. After model estimation various scenarios can then be evaluated to determine how income support recipiency affects chosen combinations of care and work. This scenario analysis answers any 'what if' questions and is a very intuitive way to demonstrate the model's findings. For example, we compute the probability that a person chooses to use informal care and be in work at time $t+1$ under a scenario in which a) the person was not in work at time t and on income support, and b) the person was not in work at time t and not on income support. The difference between these two probabilities expresses the role of informal care in making the transition from welfare to work.

6.1. Estimation of the model

The model is estimated on a balanced sub-sample of respondents. First, only respondents that are a member of a couple with a child under 15 or a lone parent with a child under 15, are selected. Next, only women are selected (i.e. mothers). Childcare information is collected on a

household basis and including both members of a couple would lead to double counting. Finally, the data is restricted to mothers 55 and under. After selection, the estimation sample consists of 1344 mothers who are observed in each of the 5 HILDA waves.

6.2. Predictions by the model

The estimated parameters of the model are displayed in Table 16. The coefficients are difficult to interpret directly, and there are a fair number of them. The role of the explanatory variables on the choice of care and work combination is more easily expressed by using the estimated coefficients to evaluate 'what if' scenarios. The scenarios that are evaluated are:

a) Using formal care and working in the previous period
b) Using informal care and working in the previous period
c) Using formal and informal care and working in the previous period
d) Using no care but working in the previous period
e) Using no care and not working in the previous period
f) Having an educational level of Year 11 or below
g) Having a degree or diploma
h) Having a certificate
i) Having an extra child 0 to 4
j) Having an extra child 5 to 9
k) Having an extra child 10 to 14
l) Be of age 30 or less
m) Be of age 31 to 40
n) Be of age 41 or over
o) Being a lone parent , and
p) Being born in a non-English speaking country

Table 16 Dynamic MNL results with and without unobserved heterogeneity

	Without Random Effects				*With Random Effects*			
	Use formal care and work (t+1)	Use informal care and work (t+1)	Use formal and informal care and work (t+1)	Use no care but work (t+1)	Use formal care and work (t+1)	Use informal care and work (t+1)	Use formal and informal care and work (t+1)	Use no care but work (t+1)
Use formal care and work (t)	4.04	2.087	3.358	1.962	2.702	1.32	2.237	1.201
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Use informal care and work (t)	2.234	3.434	2.731	2.689	1.51	1.927	1.49	1.763
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Use formal and informal care and work (t)	3.072	2.456	3.668	1.408	1.88	1.15	2.151	0.667
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.09]
Use no care but work	1.916	2.546	1.818	2.858	1.261	1.617	1.168	1.883
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
On income support (t)	1.083	0.862	1.02	0.947	3.432	2.500	3.191	2.36
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
On income support * Use formal care and work (t)	0.095	1.567	1.559	0.961	1.542	3.846	3.67	2.496
	[0.71]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
On income support * Use informal care and work (t)	1.038	1.578	2.052	0.884	3.184	3.747	4.629	2.268
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
On income support * Use formal and informal care and work (t)	0.324	0.771	0.961	0.826	1.600	2.36	2.401	2.214
	[0.13]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
On income support * Use no care but work (t)	-0.563	-0.704	-0.142	-0.284	-0.569	-0.811	-0.164	-0.266
	[0.05]	[0.00]	[0.64]	[0.09]	[0.09]	[0.01]	[0.68]	[0.19]
Have tertiary degree or diploma	0.196	0.346	-0.092	-0.272	0.204	0.445	-0.062	-0.278
	[0.67]	[0.51]	[0.86]	[0.57]	[0.75]	[0.53]	[0.93]	[0.67]
Have a certificate	-0.036	-0.075	-0.546	-0.497	0.071	0.168	-0.338	-0.385
	[0.95]	[0.85]	[0.32]	[0.20]	[0.92]	[0.75]	[0.63]	[0.43]
Year 12	-0.149	-0.072	-0.689	-0.692	-0.477	-0.264	-0.967	-0.991
	[0.77]	[0.88]	[0.17]	[0.25]	[0.47]	[0.66]	[0.17]	[0.20]
Number of children 0 to 4 in HH	0.27	0.03	-0.352	-0.048	0.435	0.296	-0.184	0.098
	[0.57]	[0.94]	[0.54]	[0.87]	[0.47]	[0.54]	[0.79]	[0.78]
Number of children 5 to 9 in HH	0.951	0.758	1.116	0.459	1.559	1.257	1.784	0.823
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]
Number of children 10 to 14 in HH	0.562	0.285	0.562	0.105	0.970	0.533	0.937	0.27
	[0.00]	[0.08]	[0.01]	[0.47]	[0.00]	[0.04]	[0.01]	[0.22]
Age youngest child is <3 years	0.925	0.56	0.793	0.347	1.404	0.898	1.233	0.546
	[0.00]	[0.00]	[0.00]	[0.01]	[0.00]	[0.00]	[0.00]	[0.02]
Aged 30 or under	-0.164	-0.23	0.269	-0.151	0.014	-0.244	0.47	-0.242
	[0.18]	[0.05]	[0.03]	[0.14]	[0.93]	[0.12]	[0.01]	[0.06]
Aged 41 or over	0.055	0.253	0.288	0.004	0.22	0.449	0.514	0.102
	[0.54]	[0.00]	[0.00]	[0.95]	[0.12]	[0.00]	[0.00]	[0.31]
Lone parent	-0.624	0.104	-0.319	0.135	-0.730	0.200	-0.369	0.191
	[0.00]	[0.18]	[0.00]	[0.04]	[0.00]	[0.10]	[0.02]	[0.07]
Foreign-born in main English speaking country	0.482	-0.216	0.47	-0.767	0.307	-0.345	0.266	-0.912
	[0.01]	[0.24]	[0.02]	[0.00]	[0.18]	[0.15]	[0.25]	[0.00]
Foreign-born in non English speaking country	-0.272	0.152	-0.333	-0.271	-0.315	0.244	-0.287	-0.342
	[0.10]	[0.34]	[0.06]	[0.07]	[0.20]	[0.30]	[0.29]	[0.12]
Log(Non-labour income of mother)	-0.08	-0.082	-0.051	0.044	-0.044	0.061	0.023	0.222
	[0.63]	[0.54]	[0.77]	[0.70]	[0.86]	[0.78]	[0.93]	[0.23]
Inner-regional	0.217	0.269	0.257	-0.439	0.138	0.162	0.193	-0.677
	[0.29]	[0.14]	[0.25]	[0.01]	[0.65]	[0.55]	[0.57]	[0.00]
Outer-regional and remote	0.211	-0.155	-0.217	-0.004	0.233	-0.206	-0.28	-0.037
	[0.32]	[0.45]	[0.38]	[0.98]	[0.51]	[0.54]	[0.49]	[0.88]
Use formal care and work *(t=0)*	-0.487	-0.579	-0.807	-0.238	-0.776	-0.923	-1.191	-0.41
	[0.01]	[0.00]	[0.00]	[0.09]	[0.02]	[0.00]	[0.00]	[0.09]
Use informal care and work *(t=0)*	-0.033	0.023	0.012	-0.027	-0.036	0.026	0.021	-0.019
	[0.25]	[0.38]	[0.70]	[0.24]	[0.40]	[0.48]	[0.62]	[0.54]
Use formal and informal care and work *(t=0)*	0.199	0.02	-0.008	0.442	0.185	-0.059	-0.077	0.534
	[0.17]	[0.87]	[0.96]	[0.00]	[0.43]	[0.77]	[0.74]	[0.00]
Use no care but work *(t=0)*	0.07	0.051	-0.469	0.254	-0.003	-0.008	-0.683	0.337
	[0.72]	[0.76]	[0.04]	[0.08]	[0.99]	[0.98]	[0.06]	[0.14]
Constant	-3.122	-3.246	-4.595	-1.791	-4.22	-4.045	-5.809	-2.11
	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]	[0.00]

Table 17 Dynamic MNL results with and without unobserved heterogeneity (Continued)

Standard deviation Random Effect (α_{ji})				1.935 [0.00]	1.912 [0.00]	1.989 [0.00]	1.480 [0.00]
ρ (α_F , α_I)				0.647			
ρ ($\alpha_{F,FI}$)				0.876			
ρ ($\alpha_{F,W}$)				0.682			
ρ ($\alpha_{I,FI}$)				0.253			
ρ ($\alpha_{I,W}$)				0.045			
ρ ($\alpha_{FI,W}$)				0.940			
N (Individuals x years)	5376			5376			
Log likelihood	-5323.12			-5255.95			
Log likelihood using constants only	-7977.44			-7977.44			
LR chi-squared [d.f.] (Prob > chi-squared)	5308.65	[116]	0.000	6792.78		[126]	0.000

Note: P-values in brackets

The scenarios for the chosen care and work combination in the previous period (a through e) are done twice, once assuming individuals are also on income support and once assuming they are not. This will enable the question of whether income support recipients are relatively more likely to depend on informal childcare when making the transition from welfare to work to be answered. The way a scenario operates is that all mothers in the sample are assumed to be affected by the scenario. For example, the scenario of having completed Year 12 simulates what would happen to the average probability of choosing each of the 5 possible care and work combinations when all mothers in the sample would have completed Year 12. The first row of Table 18 displays the predicted probabilities when averaged over all women at their observed values of the explanatory variables. This is the benchmark to which each of the scenarios is compared.

6.2.1. The role of personal characteristics and other explanatory variables

The key scenario of interest is to be not in work in period *t* (the 5th block of numbers from the top). By distinguishing this for also being on income support or not, the difference will shed some light on the role of being on income support, controlling for education, age, number and ages of the children, household type and country of birth[9]. The result of the not work in period *t* scenario is a large predicted probability of not being in work in period *t*+1 of between 42 to 71 percent, depending on the specification and being on income support or not. This compares

[9] The software can only handle the estimation of 100 coefficients. More choices mean the number of explanatory variables that can be included needs to shrink.

to the population average of between 34 to 36 percent. The role income support plays is modest with the predicted probabilities for the 5 possible combinations in period t+1 not being very different for the scenario with additional income support and without additional income support. That is, the role of being on income support is overshadowed by the role not being in work plays.

The general picture emerging from Table 18 vis-à-vis the role of income support is that being on income support in period t is associated with a higher probability of not being in work in period t+1. In turn, this higher probability of not being in work is then distributed as lower probabilities of being in each of the in-work states. The role of being on income support is minimal when compared to the much larger driving factor: the chosen combination of care and work in the previous period.

The role of education is best expressed by comparing year 11 or below with a degree or diploma. Comparing the lowest with the highest educational level shows about a 10 percentage point swing in the probability of not being in work in period t+1. The two categories Year 12 and certificate result in almost identical predictions which also happen to be close to what is predicted for all women at their observed characteristics (the first row).

Table 18 Results of scenario analysis based on dynamic MNL results from Table 16

	Without Random Effects					*Witht Random Effects*				
	Use formal care and work (t+1)	Use informal care and work (t+1)	Use formal and informal care and work (t+1)	Use no care but work (t+1)	Not working (t+1)	Use formal care and work (t+1)	Use informal care and work (t+1)	Use formal and informal care and work (t+1)	Use no care but work (t+1)	Not working (t+1)
Average predicted probabilities implied by the model using observed (true) data	**11.59**	**16.35**	**9.00**	**26.99**	**36.07**	**9.47**	**20.47**	**8.86**	**27.47**	**33.72**
Change to the average predicted probability if the following scenarios were to apply to each respondent:										
Using formal care and working (t)										
on income support	37.47	11.64	17.19	17.28	16.42	18.48	19.59	14.05	20.54	27.34
Not on income support	39.14	11.86	15.73	21.31	11.96	19.43	20.34	12.86	24.51	22.86
Difference	-1.66	-0.22	1.46	-4.04	4.46	-0.96	-0.75	1.19	-3.97	4.48
Using informal care and working (t)										
on income support	7.52	33.05	8.64	30.25	20.54	7.73	25.94	7.76	30.52	28.05
Not on income support	7.42	37.54	9.15	34.48	11.40	7.78	28.65	7.67	34.59	21.30
Difference	0.10	-4.49	-0.51	-4.23	9.13	-0.05	-2.71	0.09	-4.07	6.75
Using formal and informal care and working (t)										
on income support	18.81	18.92	22.91	11.25	28.11	11.12	18.91	13.90	14.47	41.60
Not on income support	20.27	21.35	27.01	15.70	15.67	12.94	22.46	16.40	20.64	27.56
Difference	-1.46	-2.42	-4.11	-4.45	12.44	-1.82	-3.55	-2.50	-6.18	14.05
Using no care but working (t)										
on income support	7.67	15.24	4.58	52.35	20.16	7.68	21.17	5.68	40.42	25.06
Not on income support	7.37	20.91	5.27	51.69	14.76	6.99	25.24	6.33	39.30	22.14
Difference	0.30	-5.66	-0.69	0.65	5.40	0.69	-4.07	-0.65	1.12	2.92

Not working (t)										
on income support	3.42	5.59	4.51	15.42	71.06	5.45	13.98	8.17	23.93	48.47
not on income support	5.19	9.57	4.44	17.56	63.25	6.80	19.38	7.25	24.13	42.43
Difference	-1.77	-3.98	0.08	-2.14	7.82	-1.35	-5.41	0.92	-0.21	6.04
Year11 or below	9.60	14.98	7.02	28.25	40.16	7.14	18.41	6.24	28.67	39.55
Year12	13.41	16.81	8.82	27.13	33.84	11.44	21.29	8.72	27.45	31.10
Certificate	11.94	15.98	8.82	26.35	36.91	10.14	19.97	8.67	26.89	34.33
Degree or Diploma	12.38	17.88	10.51	27.03	32.20	10.38	22.76	10.90	27.90	28.06
An extra child 0 to 4	10.43	14.39	11.95	26.00	37.24	9.40	18.50	12.73	24.54	34.82
An extra child 5 to 9	11.04	18.70	10.39	25.05	34.83	9.06	23.36	10.84	25.56	31.19
An extra child 10 to 14	7.80	18.07	7.73	29.90	36.51	5.79	22.94	7.31	30.60	33.36
Age of the youngest child is less than 3	14.80	16.75	11.50	18.75	38.20	11.86	20.24	11.06	19.86	36.98
Aged 30 or less	10.86	20.66	7.82	23.13	37.54	8.62	24.59	8.32	23.23	35.25
Aged 31 to 40	11.92	16.22	9.32	26.89	35.65	9.93	20.09	9.12	27.11	33.76
Aged 41 or over	11.45	15.26	9.21	28.23	35.84	9.19	19.80	8.80	29.62	32.59
Sole parent	12.79	20.56	10.16	20.09	36.40	10.43	23.49	10.52	20.28	35.29
Foreign born NESB	10.91	13.71	6.62	28.60	40.16	8.74	16.73	5.97	29.05	39.52
Log(Non-labour income mother) +10%	11.45	16.60	9.08	26.73	36.14	9.33	20.65	8.96	27.30	33.76
City	11.36	17.13	9.69	24.94	36.88	9.29	21.34	9.79	25.09	34.49
Inner-regional	11.90	14.60	8.55	30.79	34.16	9.77	18.56	8.06	31.61	32.00
Outer-regional & remote	12.12	16.85	6.41	28.71	35.90	9.72	20.64	5.79	30.28	33.57

The role of an extra child is different depending on the age of the child. In terms of the probability of not being in work in period $t+1$, this is hardly affected by having an extra child. Having an extra child aged between 10 and 14 lowers the probability of working and using formal care (with or without informal care) and increases the probability of working but not using care. This contrasts nicely with the youngest child being less than 3, which lowers the probability of being in work but not using care and increases the probability of using either formal or informal care and working.

The role of the age of the mother, rather than the children, is straightforward. Younger mothers are predicted to be more likely to work and use informal care only than older mothers, who are more likely to work but not use care.

7. Models of childcare use, income support recipient status and increasing hours of work

In the previous section a model was developed to describe transitions between combinations of childcare use and work. The work decision was to be in work or not. In this section we limit the analysis to mothers already in work who have increased their hours in period $t+1$. This is a narrow subset of the population and the results discussed in this section only apply to those mothers and can not be generalised to the population of all mothers. In order to obtain enough observations we pool all observations for which we have information for two consecutive waves. It therefore uses the unbalanced panel. Note that although the estimation appears to be cross sectional it is still only possible with panel data. Panel data is required to determine which mothers increase their hours of work.

The standard multinomial logit model suffers from the same problem as the more intricate panel version. That is, the coefficient estimates are difficult to interpret directly. To facilitate an easy interpretation of the effects of the explanatory variables marginal effects are computed at the sample means. These marginal effects are akin to the results from the scenario analysis in the previous section. They represent the changes in the predicted probability of choosing each of the (in this case) four different outcomes when the explanatory variable is marginally increased or changed from 0 to 1 (in the case of explanatory variables that can take on only two values, e.g. being a lone parent or not).

For the model we specify four possible changes to hours of care in response to the increase in hours of work:

- no increase in the hours of formal or informal care used
- an increase in formal hours only
- an increase in informal hours only, or
- an increase in both formal and informal hours.

A *decrease* in the hours of care used, which is possible, is coded as 'no increase'. For the explanatory variables in the model we include the same variables as in the model for childcare

and labour force participation. Because all mothers are now in work we also include the hours worked in period *t* as explanatory variables. The indicator for receiving an income support payment once again allows the identification of the role that income support receipt plays.

7.1.1. The role of personal characteristics and other explanatory variables

Table 19 below displays the marginal effects of the explanatory variables in the last four columns. They are expressed in probability mass. For example, to be on income support (fourth row) is associated with a 4.5 percentage point increase (0.045 in the table) in the probability of increasing the hours of informal care used in response to an increase in hours worked, compared to not being on income support. Informal care thus assists income support recipients to work more hours. Informal care may also assist non income support recipients to increase hours worked, but relatively less so than for income support recipients.

The results for the number of hours worked in period *t* show a clear pattern. The more hours one is already working, the less likely a further increase can be accommodated without increasing either formal or informal care hours.

The effects of children differ by the ages of the children. Having more children aged 0 to 4 or 5 to 9 years old are both associated with lower probabilities of absorbing the increase in hours worked without increasing the hours of care, however, none more strongly so than having a youngest child under 3 years of age. This reduces the probability of absorbing the increase in work hours without increasing care hours by 22.7 percentage points. It also raises the probability of only increasing formal hours by 13.1 percentage points, increasing only informal hours by 5.2 percentage points and increasing both formal and informal hours by 4.4 percentage points. In contrast, older children aged 10 to 14 make it easier to absorb the increase in hours worked without increasing hours of care.

Two final findings are notable: First, foreign born mothers from main-English speaking countries are less likely to absorb the increase in hours worked by using informal care and more likely to increase the hours of formal care used. Second, if the mother was born in a non English speaking country she is less likely to increase informal hours, but also less likely to increase formal hours or both. Instead, she is more likely to absorb the increase in working hours without increasing the hours of care.

Table 19 Standard pooled logit estimation results

				Marginal Effect computed at data means			
	increase in formal care hours	increase in informal care hours	increase in formal and informal care hours	No increase in care hours	increase in formal care hours	increase in informal care hours	increase in formal and informal care hours
work fewer than 10 hrs	-0.141	-0.277	-0.234	0.052	-0.006	-0.039	-0.006
	[0.51]	[1.23]	[0.58]				
work between 10 and 20 hrs	0.171	0.393	0.185	-0.072	0.006	0.063	0.003
	[0.78]	[2.24]**	[0.57]				
work between 20 and 30 hours	0.341	0.402	0.555	-0.095	0.020	0.056	0.019
	[1.55]	[2.38]**	[1.75]*				
On income support	-0.022	0.244	-0.129	-0.030	-0.007	0.045	-0.007
	[0.08]	[1.15]	[0.25]				
Have tertiary degree or diploma	0.653	0.306	0.431	-0.098	0.053	0.032	0.012
	[2.67]***	[1.78]*	[1.36]				
Have a certificate	0.577	0.171	-0.157	-0.063	0.058	0.015	-0.010
	[1.87]*	[0.78]	[0.34]				
Year 12	0.875	0.208	0.424	-0.108	0.091	0.006	0.012
	[3.20]***	[0.98]	[1.11]				
Number of children 0 to 4 in HH	0.385	0.086	0.742	-0.058	0.030	-0.001	0.029
	[2.13]**	[0.53]	[3.27]***				
Number of children 5 to 9 in HH	0.358	0.278	0.327	-0.071	0.025	0.036	0.009
	[2.77]***	[2.78]***	[1.89]*				
Number of children 10 to 14 in HH	-0.781	0.024	-0.326	0.057	-0.071	0.024	-0.010
	[3.79]***	[0.24]	[1.62]				
Age youngest child is <3 years	1.383	0.633	1.217	-0.227	0.131	0.052	0.044
	[5.55]***	[2.78]***	[3.09]***				
Aged 30 or under	0.342	0.195	0.106	-0.054	0.029	0.024	0.001
	[1.45]	[0.83]	[0.30]				
Aged 41 or over	-0.229	-0.202	0.162	0.037	-0.017	-0.030	0.010
	[0.98]	[1.28]	[0.47]				
Lone parent	0.462	0.421	0.240	-0.098	0.034	0.060	0.003
	[1.50]	[1.83]*	[0.48]				
Foreign-born (main English speaking)	0.380	-0.451	0.257	0.015	0.049	-0.077	0.014
	[1.59]	[1.78]*	[0.74]				
Foreign-born (non English speaking)	-0.691	-0.282	-0.381	0.087	-0.047	-0.031	-0.010
	[2.40]**	[1.27]	[0.94]				
Log(Non-labour income of mother)	0.039	-0.007	0.041	-0.003	0.004	-0.002	0.002
	[1.01]	[0.26]	[0.78]				
Inner-regional	-0.441	-0.230	-0.104	0.061	-0.033	-0.028	0.000
	[2.28]**	[1.48]	[0.40]				
Outer-regional and remote	-0.389	-0.248	-0.443	0.069	-0.026	-0.029	-0.013
	[1.40]	[1.25]	[1.10]				
Constant	-2.706	-1.713	-3.951				
	[5.95]***	[5.50]***	[5.83]***				
N (Individuals x years)	1675						
Pseudo R squared	0.1208						
Wald chi2(57)	429.23						
Prob > chi2	0.000						

Robust z statistics in brackets corrected for clustering on xwaveid; * significant at 10%; ** significant at 5%; *** significant at 1%

8. References

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9. Appendix

Detailed account of the data issues in HILDA related to childcare that are the result of minor modifications made to the questionnaires over the waves.

Changes in childcare questions and variables across waves

From wave 1 to 2:

ACCUSETH vs. BCCUSETH:

ACCUSETH asks whether respondent has considered using childcare so that both parents can work. BCCUSETH asks whether respondent has considered using childcare so that one of the parents can work

BCCWUSE and BCCNUSE1

New variables introduced in wave 2 to capture whether childcare is actually used when/when not undertaking paid work

During term time care for school children

"ME" (parents look after children) option was in wave 1 but deleted in wave 2

Pre-school care

In wave 1, preschool care only asked for when parents are working. In wave 2, respondents are also asked about childcare when not at work AND not working

"ME" (parents look after children) option was in wave 1 but deleted in wave 2

Non-employment related childcare for both school aged and preschool aged children

A new set of questions introduced in wave 2

From wave 2 to 3:

CCCDIFSN (finding care at short notice):

A new variable about difficulty related to childcare was introduced in wave 3

During term time care for children in school

"ME" (parents look after children) option reappeared in wave 3

Pre-school care

"ME" (parents look after children) option reappeared in wave 3

Different clarifications about Child Care Benefit were introduced

New set of questions about Family Tax Benefit introduced

From wave 3 to 4:

"OS" and "OE" (different forms of out of hours care)

Grouped together into "FC" in wave 4.

"RU" (relatives)

Split into "GU" (grandparents) and "AU" (other relatives) in wave 4

"RE" (relatives)

Split into "GE" (grandparents) and "AE" (other relatives) in wave 4

"VS" and "VE" (different forms of vacation care)

Grouped together into "VC" (vacation care) in wave 4

"KP" (kindergarten)

Option excluded from non-employment related childcare for school-aged children in wave 4.

"FC" (formal out of hours care)

Option added to non-employment related childcare for school-aged children in wave 4

From wave 4 to 5:

Non-employment related childcare for both school aged and preschool

Redesigned such that childcare usage, hours and weekly costs are asked for each child rather than all children in the category

Table 20 Income support, labour market participation and childcare: all mothers (absolute numbers)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Total (N)	Column %
F	340	15	51	1	100	6	103	5	44	9	674	9.32%
F_is	14	53	2	12	5	16	6	10	8	10	136	1.88%
I	47	1	413	19	84	6	341	15	59	15	1,000	13.83%
I_is	3	4	24	47	3	7	9	30	7	15	149	2.06%
FI	89	3	79	5	205	5	46	3	38	3	476	6.58%
FI_is	7	14	10	12	7	21	3	5	7	10	96	1.33%
W	68	2	239	14	48	2	1,008	27	125	11	1,544	21.35%
W_is	4	8	13	26	2	6	49	111	12	40	271	3.75%
NW	85	14	98	7	60	6	173	13	1,024	202	1,682	23.26%
NW_is	13	18	22	23	14	13	37	66	205	793	1,204	16.65%
Total (N)	670	132	951	166	528	88	1,775	285	1,529	1,108	7,232	
Row %	9.26%	1.83%	13.15%	2.30%	7.30%	1.22%	24.54%	3.94%	21.14%	15.32%		100.00%

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.

Table 21 Income support, labour market participation and childcare: all mothers (row percentages)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Row %
F	50.5	2.2	7.6	0.2	14.8	0.9	15.3	0.7	6.5	1.3	100
F_is	10.3	39.0	1.5	8.8	3.7	11.8	4.4	7.4	5.9	7.4	100
I	4.7	0.1	41.3	1.9	8.4	0.6	34.1	1.5	5.9	1.5	100
I_is	2.0	2.7	16.1	31.5	2.0	4.7	6.0	20.1	4.7	10.1	100
FI	18.7	0.6	16.6	1.1	43.1	1.1	9.7	0.6	8.0	0.6	100
FI_is	7.3	14.6	10.4	12.5	7.3	21.9	3.1	5.2	7.3	10.4	100
W	4.4	0.1	15.5	0.9	3.1	0.1	65.3	1.8	8.1	0.7	100
W_is	1.5	3.0	4.8	9.6	0.7	2.2	18.1	41.0	4.4	14.8	100
NW	5.1	0.8	5.8	0.4	3.6	0.4	10.3	0.8	60.9	12.0	100
NW_is	1.1	1.5	1.8	1.9	1.2	1.1	3.1	5.5	17.0	65.9	100

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.

Table 22 Income support, labour market participation and childcare use for mothers with children aged 5 and over (absolute numbers)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Total (N)	Column %
F	149	10	35	0	45	1	56	2	8	5	311	5.76%
F_is	8	31	0	10	3	5	4	9	7	3	80	1.48%
I	20	2	390	21	33	1	344	12	39	13	875	16.20%
I_is	0	3	23	47	2	3	10	31	6	13	138	2.56%
FI	31	0	49	2	55	1	22	1	6	2	169	3.13%
FI_is	1	9	7	4	1	12	0	2	3	4	43	0.80%
W	48	2	253	17	20	0	1,092	34	110	11	1,587	29.39%
W_is	4	8	15	32	0	5	54	117	9	35	279	5.17%
NW	19	5	50	3	6	1	150	11	655	137	1,037	19.20%
NW_is	4	7	17	23	5	5	36	55	140	589	881	16.31%
Total (N)	284	77	839	159	170	34	1,768	274	983	812	5,400	
Row %	5.26%	1.43%	15.54%	2.94%	3.15%	0.63%	32.74%	5.07%	18.20%	15.04%		100.00%

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.

Table 23 Income support, labour market participation and childcare use for mothers with children aged 5 and over (row percentages)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Row %
F	47.91	3.22	11.25	0	14.47	0.32	18.01	0.64	2.57	1.61	100
F_is	10	38.75	0	12.5	3.75	6.25	5	11.25	8.75	3.75	100
I	2.29	0.23	44.57	2.4	3.77	0.11	39.31	1.37	4.46	1.49	100
I_is	0	2.17	16.67	34.06	1.45	2.17	7.25	22.46	4.35	9.42	100
FI	18.34	0	28.99	1.18	32.54	0.59	13.02	0.59	3.55	1.18	100
FI_is	2.33	20.93	16.28	9.3	2.33	27.91	0	4.65	6.98	9.3	100
W	3.02	0.13	15.94	1.07	1.26	0	68.81	2.14	6.93	0.69	100
W_is	1.43	2.87	5.38	11.47	0	1.79	19.35	41.94	3.23	12.54	100
NW	1.83	0.48	4.82	0.29	0.58	0.1	14.46	1.06	63.16	13.21	100
NW_is	0.45	0.79	1.93	2.61	0.57	0.57	4.09	6.24	15.89	66.86	100

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.

Table 24 Income support, labour market participation and childcare use for mothers with children aged less than 5 (absolute numbers)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Total (N)	Column %
F	260	8	14	1	50	5	101	6	45	4	494	13.92%
F_is	10	28	2	2	3	6	5	12	5	9	82	2.31%
I	34	0	102	2	62	4	68	6	37	4	319	8.99%
I_is	2	1	6	8	1	4	5	5	2	6	40	1.13%
FI	60	3	22	1	108	2	46	3	25	1	271	7.63%
FI_is	4	5	1	3	4	9	6	5	4	5	46	1.30%
W	53	2	49	1	27	2	184	4	54	5	381	10.73%
W_is	3	5	3	7	0	1	6	18	5	15	63	1.77%
NW	75	13	71	5	50	4	98	7	699	143	1,165	32.82%
NW_is	11	15	8	7	9	6	20	33	137	443	689	19.41%
Total (N)	512	80	278	37	314	43	539	99	1,013	635	3,550	
Row %	14.42%	2.25%	7.83%	1.04%	8.85%	1.21%	15.18%	2.79%	28.54%	17.89%		100.00%

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.

Table 25 Income support, labour market participation and childcare use for mothers with children aged less than 5 (row percentages)

	F	F_is	I	I_is	FI	FI_is	W	W_is	NW	NW_is	Row %
F	52.63	1.62	2.83	0.2	10.12	1.01	20.45	1.21	9.11	0.81	100
F_is	12.2	34.15	2.44	2.44	3.66	7.32	6.1	14.63	6.1	10.98	100
I	10.66	0	31.97	0.63	19.44	1.25	21.32	1.88	11.6	1.25	100
I_is	5	2.5	15	20	2.5	10	12.5	12.5	5	15	100
FI	22.14	1.11	8.12	0.37	39.85	0.74	16.97	1.11	9.23	0.37	100
FI_is	8.7	10.87	2.17	6.52	8.7	19.57	13.04	10.87	8.7	10.87	100
W	13.91	0.52	12.86	0.26	7.09	0.52	48.29	1.05	14.17	1.31	100
W_is	4.76	7.94	4.76	11.11	0	1.59	9.52	28.57	7.94	23.81	100
NW	6.44	1.12	6.09	0.43	4.29	0.34	8.41	0.6	60	12.27	100
NW_is	1.6	2.18	1.16	1.02	1.31	0.87	2.9	4.79	19.88	64.3	100

See section 4.1.1 for the definitions of the codes. Transitions between status in wave *t* (row) to *t+1* (column), pooled over all waves.