Determinants of the Labour Force Status of Female Carers

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Abstract

In Australia, as in other countries, people who have significant responsibilities for caring for a person with a disability or long-term health problem have lower employment rates than those without caring responsibilities. This paper uses data from the 2006 Families Caring for a Person with a Disability Survey to estimate the determinants of the labour force status of carers. While carers do have relatively low employment rates, over half of the carers who are not employed say they would like to be in paid employment. The major factors that are associated with lower rates of employment for female carers were having a low level of educational attainment, poor health of the carer, providing full-time care, caring for a child with a disability and not having people outside the household to provide support.

1. Introduction

In Australia, as in other countries, the majority of carers for people with a disability or long-term health problem is provided by family or friends (ABS, 2008; Jenson and Jacobzone, 2000). While the informal care for the disabled and those with long-term health problems is of enormous economic and social value, providing this care has a negative impact on the labour supply of carers of working age (Carmichael and Charles, 2003; Ettner, 1996).1

Women continue to be the main providers of this informal care (ABS, 2008) and as the rates of employment of women continues to rise, women will increasingly take into account the impacts of providing informal care on their labour supply when deciding how to care for family members with a disability or a long-term health problem. This, combined with the projected increases in the proportion of the population requiring care resulting from population ageing (National Centre for Social and Economic Modelling, 2004), will make understanding the determinants of the labour force status of carers of increasing importance.

1 Australian studies include Bittman, Hill and Thomson (2007); Gray, Edwards and Zmijewski (2008), and Jenson and Jacobzone (2000).

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In Australia, those with significant and ongoing caring responsibilities for a person with a disability or long-term health problem may be provided with financial assistance by the Australian Government through the provision of Carer Payment and Carer Allowance (described in more detail in section 3). The number of people receiving these payments has increased substantially in recent years (Edwards et al., 2008). Throughout this paper the term carers is used to refer to those who provide care to a person who requires care because of a disability, long-term health problem or frail old age.

There has been relatively little Australian research into the determinants of the labour force status of carers (Bittman, Hill and Thomson, 2007; Lee and Gramotnev, 2007). Furthermore, the literature has generally focused on comparing the labour force status of carers with those who do not have caring responsibilities, and has not attempted to estimate the factors that determine which carers are employed. This paper aims to begin to fill this gap by estimating the factors associated with the labour force status of carers using data from a new survey of Australian carers; the 2006 Families Caring for a Person with a Disability (FCPD) survey.

The main contribution of this article is to use a new data set to estimate the determinants of labour force status of female carers, including an analysis of unemployment and marginal attachment (i.e. people who want a job but are not actively looking for work or who are actively looking for work but are not available to start work) as a labour force state. The results have important implications for the design of income support payments to carers and the extent to which resources should be expended to attempt to help carers find employment.

There are significant differences in patterns of labour force participation between males and females, so any analysis of labour force status needs to be conducted separately for males and females. The relatively small number of male carers of working age means that it is not possible to estimate the determinants of labour force status of male carers using the FCPD survey and the analysis in this article is therefore restricted to female carers.

The remainder of this paper is structured as follows. The second section discusses why caring may impact upon carers labour force status and provides a brief discussion of the existing empirical evidence. The third section describes the data used to estimate the labour force status of carers and the fourth section describes the labour force status of carers. In the fifth section the empirical approach is described and the estimates of the determinants of labour force status discussed. The final section concludes.

2. Theoretical Issues and Past Research
The effect of care giving on labour market outcomes (and vice versa) can be conceptualised as a time allocation problem in which an individual has to allocate time across work, leisure and care-giving activities (Wolf and Soldo, 1994). In this model, time is allocated between labour paid at a fixed wage rate, ‘leisure’ and care. Hours of work are chosen to maximise utility which is dependent on the number of hours of leisure and consumption goods and the number of hours of informal care provided. Care can be entirely provided informally by family members, entirely purchased in the market (formal care) or by a combination of formal and informal care.

Within this model, the decision as to whether the care needs are met through formal or informal care will depend, in part, upon the potential labour market income

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2 There were 116 male carers of working age in the FCPD survey.
of potential carers. In the context of the intra-family decision as to how care needs should be met, economic theory suggests that the caring should be done by the family members with the lowest value of their alternative time use. Within this model the value of alternative time use is the wage rate the person could earn in the market if employed and their likelihood of being able to find employment. The alternative to the family informally providing the care is that the care be purchased through the market. The higher the potential wage rate the more likely that a person responsible for providing the care will purchase the needed care through the market.

Carmichael and Charles (2003) use a related interpretation whereby the time constraint means that caring commitments may lead the individual to substitute unpaid for paid work (the substitution effect) or, alternatively, the extra financial expenditure typically associated with informal care may increase the incentive for the individual to undertake paid work (the income effect).

Within these models, providing care is endogenous to labour market outcomes to the extent to which potential labour market income impacts upon decisions about who provides care within the family, or the extent to which care is provided through the market. Similarly, the number of hours of care provided may be endogenous to labour market outcomes.

Caring may also reduce the likelihood of carers being employed if employers are less willing to offer employment, or to offer lower wages to carers because of the potential impact of caring on their productivity in the labour market. Caring may have a negative impact upon productivity because of the time and emotional demands of caring or because caring can have an adverse impact upon the health of carers (Edwards et al., 2008; Pinquart and Sorenson, 2003; Vitaliano, Zhang and Scanlan, 2003).

Of course, beliefs about what is the right thing to do, sense of loyalty and the intrinsic rewards of caring are also very important in decisions as to whether to provide informal care or purchase formal care (see Hales, 2008, for a discussion of these issues). This may mean that caring and labour force status is not endogenous.

There is mixed empirical evidence on the extent to which the family member with the lowest labour market earning is more likely to take on the primary caring role. Pavalko and Artis (1997) and Spiess and Schneider (2002), using longitudinal data from the US and the European Community respectively, found that the decision as to who in the family provides care was not related to pre-care employment status. Dautzenberg et al., (2000), using Dutch data, found the reverse result.

The limited Australian evidence on the impact of having caring responsibilities on labour force status supports the conclusion that having caring responsibilities reduces the probability of employment. Bittman et al., (2007) used data from the first four waves of the Household, Income and Labour Dynamics in Australia (HILDA) survey and reported that, compared to the rest of the population, working-age carers were significantly more likely to reduce their hours of work or stop working altogether. Gray, Edwards and Zmijewski (2008), using retrospective labour force history data from the FCPD survey, find evidence of a decrease in the probability of employment after caring commenced.

3. Overview of the Families Caring for a Person with a Disability Survey

The sample for the FCPD Survey consisted of 1,002 primary carers receiving Carer Payment and/or Carer Allowance in June 2006 who were randomly selected from the
Centrelink administrative database. Questions were asked about a wide range of topics, including: disabling condition and caring role; household composition and demographic characteristics; support networks; family relationships; mental and physical health; educational attainment; and financial wellbeing. In addition, detailed information was collected about labour force status.

The interviews were conducted using computer-assisted telephone interviewing in October and November 2006 and the sample was representative of those receiving government payments to care. Further details about the study are provided by Edwards et al., (2008).

Carer Payment is an income support payment for those who are unable to participate in the workforce full-time as a result of their caring responsibilities. Carer Allowance is a supplementary, non-means-tested payment provided to people who provide daily care and attention at home to a person who has a disability, or severe medical condition or is frail aged. Almost all of those who receive Carer Payment will also be receiving Carer Allowance. The majority of those receiving Carer Allowance do not receive Carer Payment.

Because eligibility for Carer Payment is restricted to carers who are unable to participate in the workforce full-time as a result of their caring responsibilities (an eligibility condition that does not apply to Carer Allowance) it is important to take into account the type of payment received when analysing labour force status. The analysis in this paper is restricted to those of working age (18–64 years).

Carers in the FCPD Survey are representative of carers in the Australian population as all carers in Australia are eligible for Carer Allowance if they provide daily care and attention in a private home to a person with a disability, severe medical condition or who is frail aged (Edwards et al., 2008). Carer Allowance is not taxable or subject to an income and assets test. A detailed description of the demographic and labour force characteristics of carers and how they compare to those without caring responsibilities has recently been published by the Australian Bureau of Statistics (ABS, 2008). They report that compared to non-carers, carers tend to be older, more likely not to be employed and not to be in the labour force, and fewer have completed Year 12.

The FCPD survey has several advantages for analysing the determinants of the labour force status of carers including its relatively large sample of female carers of working age, detailed information about labour force status and the nature of caring responsibilities, the relationship of the person requiring care to the carer and the support provided by others to the carer.

4. Describing the Labour Force Status of Female Carers

Labour Force States Analysed

Analyses of labour market status generally focus on three categories: employment, unemployment and not-in-the labour force. For those ‘not-in-the labour force’ sometimes a distinction is made between those who want to work and those who do not. People who want a job but are not actively looking for work or who are actively looking for work but are not available to start work are not classified as being unemployed, but because they want to work are termed the ‘hidden unemployed’ or ‘marginally attached’ (Gray, Heath and Hunter, 2005). Previous research has found that the rates of marginal attachment to the labour force are relatively high for Australian carers (Bittman, Hill and Thomson, 2007; Gray, Edwards and Zmijewski, 2007).

In this paper, the labour force states analysed are employed, unemployed,
marginally attached and other not-the labour force. ‘Employed’ is defined as working for one hour per week or more;5 and ‘unemployed’ as actively looking for work, but not employed.6 The ‘marginally attached’ are those who are not employed, want to work but are not actively looking for work. This differs from the standard ABS definition which requires in addition that a person is available to start work within four weeks. This information was not collected in the FCPD Survey. A further difference between our definition and the ABS definition is that those who are not working, are actively looking for work but are not available to start work are, in this paper, classified as being marginally attached rather than unemployed as under the ABS definition.

The Labour Force Status of Carers
According to data from the FCPD Survey7 the employment rate of female carers who received only Carer Allowance was 43.1 per cent. The full-time employment (35 or more hours per week) rate was 11.0 per cent and the part-time employment (one to 34 hours per week) rate of 32.1 per cent.8 For women receiving Carer Payment, 0.6 per cent were employed full-time and 19.9 per cent part-time, with a total employment rate of 20.5 per cent.

The unemployment to population rate of those receiving only Carer Allowance was 6.3 per cent, while for those receiving Carer Payment it was 3.9 per cent. The unemployment rate (as conventionally defined) for females receiving only Carer Allowance was 12.8 per cent and was 15.8 per cent for those receiving Carer Payment. The proportion of carers who were not in the labour force was 50.6 per cent for those receiving only Carer Allowance and 75.7 per cent for those receiving Carer Payment.

The proportion of female carers who were marginally attached was relatively high. Over one-quarter (28.9 per cent) of those receiving Carer Allowance only and 29.5 per cent of those receiving Carer Payment were marginally attached to the labour force. These rates of marginal attachment are higher than Bittman et al., (2007) estimates using the HILDA survey. They estimate that between 10 per cent and 15 per cent of carers with intensive caring responsibility were marginally attached to the labour force. Possible explanations for the difference include differences in the definition of caring

5 Carer Payment is means tested (through income and asset tests) and eligibility is also dependent on the level of impairment of the care receiver. In the period 20 September to 31 December 2008, the single rate for Carer Payment was $562.10 per fortnight and the couple rate was $469.50 per fortnight. Carer Allowance was $100.60 per fortnight. In addition, an annual payment of $1,000 is payable for each child cared for under the age of 16 (Australian Government, 2008).
6 In this paper, ‘Carer Allowance only’ refers to carers who only receive the Carer Allowance because carers who receive Carer Payment are also eligible for Carer Allowance.
7 The definition of employment is in the week prior to the survey having worked for payment or profit, had a job but do not work in the week prior to the survey because on holidays, other paid leave, on strike or temporarily stood down, worked unpaid in a family business or were on call but did not work.
8 The definition of unemployment used in this paper differs in some respects from the standard ABS definition. Under the ABS definition a job seeker must be available start work immediately. Information on availability to start work was not collected in the FCPD survey and so our definition does not have this requirement. According to ABS data for the working age population, not having this restriction increases the number of unemployed by about 12 per cent (ABS, 2007).
9 The figures reported in this paper differ from Gray, Edwards and Zmijewski (2008) as that paper excluded carers who said they were retired but were under the age of 65. In this paper, retired carers are included and are categorised as being not-in-the labour force.
10 Hours are usual working hours and include paid and unpaid overtime. If working hours are irregular, respondents were asked to average the working hours over the last four weeks.
between the surveys, the fact that Bittman et al. results combined estimates for both male and female carers and that Bittman et al. sample includes carers who were not receiving any government assistance direct to carers.\footnote{Bittman et al. (2007) sample includes anyone who was providing care for an adult, even if it was for less than five hours a week.}

Among female carers who were not employed, 57.1 per cent of those who received only Carer Allowance wanted to work (unemployed or marginally attached) and 39.0 per cent of those who received Carer Payment wanted to work. Overall, the proportion of working age female carers who did not want to be in paid employment was fairly low, being 21.7 per cent of those who received Carer Allowance only and 46.2 per cent of those receiving Carer Payment.

Table 1 - Labour Force Status of Female Carers, by Payment Type, 2006

<table>
<thead>
<tr>
<th>Payment type</th>
<th>Carer Allowance only</th>
<th>Carer Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate</td>
<td>43.1</td>
<td>20.5</td>
</tr>
<tr>
<td>Full time</td>
<td>11.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Part time</td>
<td>32.1</td>
<td>19.9</td>
</tr>
<tr>
<td>Unemployment to population rate</td>
<td>6.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Not in the labour force (NILF)</td>
<td>50.6</td>
<td>75.7</td>
</tr>
<tr>
<td>Marginally attached</td>
<td>28.9</td>
<td>29.5</td>
</tr>
<tr>
<td>NILF and does not want to work</td>
<td>21.7</td>
<td>46.2</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>12.8</td>
<td>15.8</td>
</tr>
<tr>
<td>Number of observations</td>
<td>476</td>
<td>156</td>
</tr>
</tbody>
</table>

Notes: The labour force participation rate is the proportion of the population either employed or unemployed. The unemployment rate is defined as the number unemployed divided by the number in the labour force (employed plus unemployed). Excludes those aged 65 years or older. Source: FCPD Survey 2006.

5. Modelling the Labour Force Status of Female Carers

This section first describes the analytic approach and empirical model used to estimate the determinants of the labour force status of female carers and the second presents the estimation results.

Analytic Approach and Empirical Model

The labour force states modelled are: employed; not employed but wants to be in paid employment (unemployed or marginally attached); and other not-in the labour force (NILF). The unemployed and marginally attached are combined into a single category ‘not employed and wants to work’ because the relatively small number of unemployed carers means that it is not possible to reliably estimate the determinants of unemployment as a separate category.

As the dependent variable is not continuous, ordinary least squares regression is inappropriate and it is necessary to use a technique appropriate for a dependent variable with only three possible values. Multinomial logit was chosen because the three possible outcomes are categorical rather than ordinal. The model estimated is
reduced form; structural labour supply and labour demand models are not estimated.

The multinomial logit model, which allows the dependent variable to take one of three mutually exclusive and exhaustive values, j=1, 2, and 3:

\[ Y_i = 1 \text{ if person } i \text{ is employed} \]
\[ Y_i = 2 \text{ if person } i \text{ is unemployed or marginally attached} \]
\[ Y_i = 3 \text{ if person } i \text{ is not employed and does not want to work} \]

The multinomial model is given by:

\[
\text{Probability}(Y_i = j) = \frac{e^{\beta_j x_i}}{\sum_{m=1}^{3} e^{\beta_m x_i}}
\]  

(1)

The explanatory variables include human capital, demographic, the nature of caring responsibilities and support to carers. The remainder of this section provides a rationale for the empirical specification used.

The specification includes a range of human capital and demographic variables that economic theory suggests will be related to labour force status (Killingsworth, 1983), or which previous empirical studies have shown to be important determinants (e.g., Beggs and Chapman 1990; Breusch and Gray 2004; Doiron 2004; Gray, Qu, de Vaus and Renda, 2006; Le and Miller 2000).

The type of caring-related payment received is controlled for by including a measure of whether Carer Allowance only is received or whether the woman receives Carer Payment.

Age is included to measure life cycle effects and as a measure of potential labour market experience. Age squared is included to allow for a non-linear relationship between age and the probability of being in each labour force state. Human capital factors are captured by educational attainment (in addition to potential labour market experience). Level of educational attainment is captured by a set of dummy variables (degree or diploma level qualification; trade, apprenticeship, workplace training or Certificate I-IV, year 12 education and no post-secondary qualification and less than year 12 and no post-secondary qualification). The omitted category is having a degree of diploma level qualification.

Having poor health reduces productivity which can decrease the probability of being employed. It can also mean that a person does not participate in the labour market. Poor health was measured by the question: ‘In general, would you say your health is excellent, very good, good, fair or poor?’ Respondents reporting fair or poor health were categorised as being in poor health.

As theoretical models of labour supply decisions suggest and empirical research have found, the income of a partner is an important determinant of the labour supply decision (Apps, Killingsworth and Rees, 1996; Scutella, 2000-2001). The FCPD did not collect information on partner’s income and therefore for women with a partner, their partner’s employment status was included as a proxy for partner’s income.

For women, the presence of a dependent child in the household has been found to be an important determinant of labour force status. A variable measuring having an able-bodied dependent child in the household is included in the regression model.

As the discussion of the theoretical models suggest, the intensity of care provided
is predicted to be related to labour force status. We measure caring responsibility as providing full-time care compared to providing less than full-time care.\footnote{Carers were asked to provide an estimate of the number of hours they provided care including the option of 24 hours a day, seven days a week. A large proportion of carers reported they cared for the person with a disability in this fashion. While this may seem implausible, Bittman, Fisher, Hill and Thomson (2005) have discussed issues associated with asking carers to report the hours they spend caring. They conclude that these hours are likely to include the time associated with direct care as well as time associated with monitoring the person with the disability, which can be expected to impact on labour force participation.}

The relationship between the person with a disability and the carer is likely to affect labour supply decisions. Controls are included for the person with a disability being the carer’s partner, the person with a disability being an adult and the person with a disability being a child under the age of 18 years. A carer could be caring for more than one person and in these cases the categories are not mutually exclusive.

Support to the carer, either as direct support or help to the carer or indirectly through assistance to the person with a disability, is likely to impact upon labour force participation. We include two binary variables that model the presence of one or more individuals who provide support in the household and outside of the household. The numbers of hours of support provided by those living within the household and those living outside of the household is also included.\footnote{These variables were collected using a number of questions. The questions are designed assess the main areas of social support recognised in the wider social support literature - informational, emotional and practical assistance to the carer and the person with a disability (Barrera, 1981). The validity of proxy reports of tangible assistance from family and friends and social interaction with others has been supported by Conner, Conwell, and Duberstein (2001). However, proxies tended to under-report the level of emotional support provided.}

As discussed above, the number of hours of care provided (full-time care compared to less than full-time care) is potentially endogenous to paid employment. The potential endogeneity of care intensity is tested using an instrumental variables approach. We therefore test for endogeneity within a binary dependent variable framework following the approach used by Borland and Hunter (2000).

The instrument used is caring for a partner. For carers, caring for a partner is not expected to affect the likelihood of being employed other than via the impact of providing care, but it does impact upon care intensity. In the first stage, a probit regression with full-time care as the dependent variable is estimated. The regression includes all of the variables that are included in the probability of employment equation and whether the care is provided for a partner, the instrument. Whether or not care is provided for a partner appears to be a valid instrument as it is significantly associated with full-time care. A generalized residual is then calculated from the probit regression and is included in the second stage probit estimates of the probability of employment. The generalized residual was not statistically significant suggesting that care intensity is not endogenous. Interestingly, Bolin et al. (2008) similarly finds no evidence of the endogeneity of the caring decision.

**Multinomial Logit Results**

This section presents the results of the estimates of the determinants of labour force status for female carers who receive Carer Payment or Carer Allowance. Summary statistics are presented in appendix table A1. The regression results are also provided in the appendix. The validity of the estimated multinomial logit model depends partly on whether the assumption of Independence of Irrelevant Alternatives (IIA) is
acceptable. This can be tested using a Hausman test or Small-Hsiao Test. Both tests suggest that the multinomial model is well specified at least in terms of IIA (Long and Freese, 2006) (see appendix table A2),

As the multinomial logit model results themselves are not straightforward to interpret, the estimated marginal effects are presented in table 2. The marginal effect is usually calculated as the effect of a one unit change in an explanatory variable from its sample average on the probability of being in each of the labour force states after 12 months, holding all other variables at their average value. In the case of binary variables, the marginal effect is the effect of having the characteristic, given that all other variables are at their average value. The marginal effects for each variable sum to zero across the labour market states since each respondent must be in one, and only one, labour force state.

As an example of the interpretation of the marginal effects, consider the effects of receiving Carer Allowance only as compared to receiving Carer Payment. Women who receive a Carer Allowance only are more likely to be employed than women receive a Carer Payment as well (15.4 per cent). They are correspondingly less likely to be unemployed or marginally attached (13.3 per cent). Interestingly, type of payment received appears to have little effect on female carers desire to work. The marginal effects for employment and unemployment or marginal attachment are statistically significant.

Having less than year 12 education is estimated to reduce the probability of employment by 23.7 percentage points. The probability of being NILF and not wanting to work and being unemployed or marginally attached are increased by 12.7 and 11.0 percentage points respectively. The other education variables are not statistically significant.

Having poor health is estimated to reduce the probability of being employed by 13.5 percentage points compared to not having poor health. Those with poor health are estimated to be 4.7 percentage points less likely to be NILF and not want to work, but to be 18.1 percentage points more likely to be unemployed or marginally attached. The marginal effects are statistically significant for the paid employment and unemployed or marginally attached categories.

There is no statistically significant relationship between labour force status and having a partner who is employed or having an able-bodied dependent child and labour force status.

Providing full-time care is statistically significant. Those providing full-time care are estimated to be 15.9 percentage points more likely not to want to work (NILF and not want to work), and to be 21.4 percentage points less likely to be employed than those not providing full-time care. They are also estimated to be 5.6 percentage points more likely to be unemployed or marginally attached than a carer not providing full-time care.

Caring for a child with a disability compared to not caring for a child with a disability is estimated to reduce the probability of not wanting to work by 7.3 percentage points and the probability of being employed by 13.3 percentage points. The probability of being unemployed or marginally attached is increased by 20.6 percentage points. There is no statistically significant relationship between caring for a partner and labour force status or caring for an adult who is not the carers partner and labour force status.

Having a person or people outside of the household who provide assistance with caring increases the probability of being employed by 14.7 percentage points, increases the probability of not wanting to work by 1.5 percentage points and decreases
the probability of being unemployed or marginally attached by 16.2 percentage points. The effect is statistically significant for those who want to work.

Having someone living in the same household as the carer who provides assistance with caring appears to have no statistically significant effects on labour force status. There is no relationship found between number of hours of support the carer receives and their labour force status. This finding is perhaps a little surprising. A possible explanation is that the amount of support that is being provided is being captured by the variables measuring other people providing support to the person with a disability or the carer. It may also be case that there is a correlation between the hours of support the carer receives and the severity of the disability. To the extent to which there are unmeasured differences in severity of disability that impact upon the carers labour force status the true effect of full-time care on the likelihood of being in paid employment may be understated.

Table 2 - Marginal Effects for Each Labour Force State

<table>
<thead>
<tr>
<th>Does not want to be in paid Employment</th>
<th>Wants to be in paid Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NILF and Unemployed doesn’t want or to Work</strong></td>
<td><strong>Employed</strong></td>
</tr>
<tr>
<td>Carer Allowance only</td>
<td>-2.1</td>
</tr>
</tbody>
</table>

**Educational attainment**

<table>
<thead>
<tr>
<th>Educational attainment</th>
<th>Does not want to be in paid Employment</th>
<th>Wants to be in paid Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade, apprenticeship, workplace training or Certificate I-IV</td>
<td>6.9</td>
<td>2.0</td>
</tr>
<tr>
<td>Year 12 only</td>
<td>14.9</td>
<td>-3.8</td>
</tr>
<tr>
<td>Less than Year 12</td>
<td>12.7*</td>
<td>11.0</td>
</tr>
<tr>
<td>Poor health</td>
<td>-4.7</td>
<td>18.1*</td>
</tr>
<tr>
<td>Employed partner</td>
<td>0.3</td>
<td>-10.3</td>
</tr>
<tr>
<td>Dependent child (able-bodied)</td>
<td>-3.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Providing full-time care</td>
<td>15.9*</td>
<td>5.6</td>
</tr>
</tbody>
</table>

**Relationship of person with a disability (PWD) to the carer**

<table>
<thead>
<tr>
<th>Relationship of person with a disability (PWD) to the carer</th>
<th>Does not want to be in paid Employment</th>
<th>Wants to be in paid Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWD Carers’ partner</td>
<td>12.7</td>
<td>-4.9</td>
</tr>
<tr>
<td>PWD Adult</td>
<td>-2.5</td>
<td>6.3</td>
</tr>
<tr>
<td>PWD child</td>
<td>-7.3</td>
<td>20.6*</td>
</tr>
</tbody>
</table>

**Source of support**

<table>
<thead>
<tr>
<th>Source of support</th>
<th>Does not want to be in paid Employment</th>
<th>Wants to be in paid Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household supporters</td>
<td>2.1</td>
<td>-1.9</td>
</tr>
<tr>
<td>Supporters outside the household</td>
<td>1.5</td>
<td>-16.2*</td>
</tr>
</tbody>
</table>

**Hours of support**

<table>
<thead>
<tr>
<th>Hours of support</th>
<th>Does not want to be in paid Employment</th>
<th>Wants to be in paid Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours of support-household</td>
<td>0.055</td>
<td>-0.082</td>
</tr>
<tr>
<td>Hours of support-outside the household</td>
<td>-0.056</td>
<td>0.022</td>
</tr>
<tr>
<td>Number of observations</td>
<td>151</td>
<td>245</td>
</tr>
</tbody>
</table>

Notes: ‘Employed’ is the base category. The population comprises female carers receiving Carer Allowance or Carer Payment and Carer Allowance aged 18-64 years. The omitted categories are university of diploma level qualification and the carer provides one to 20 hours of care per week. *indicates that the marginal effect is statistical significant at the five per cent or better confidence level. Age and age squared are not included in table 2 as their combined marginal effect is presented in figure 1. Source: Derived from appendix tables A1 and A2.
Figure 1 shows the predicted probability of being in each labour force state by age (i.e., the age profile). The predicted percentage of employment increases with age to reach a maximum of 46.8 per cent at age 43. The probability of employment then decreases. The age profile of unemployment or marginal attachment is quite different to that for employment. The predicted probability of being unemployed or marginally attached increase sharply with age to reach a maximum of 44.1 per cent at age 29. It then declines gradually with age, but is much flatter than the employment age profile for carers. The combined effect of this is that the probability of being not employed and not wanting to work is u-shaped and is lowest at 41 years. The predicted labour force status at very young age or older ages should be treated with some caution given that the sample sizes at these age ranges are relatively small.

6. Conclusion
The number of people with informal caring responsibilities will increase in coming decades and this caring can often lead to a withdrawal from the labour market and in many cases a reliance on government income support payments. While carers do have relatively low employment rates, at least two-fifths of carers in receipt of government payments directed towards carers (Carer Payment and Carer Allowance) who are not employed say they would like to be in paid employment. Overall, 72.0 per cent of those receiving only Carer Allowance were either employed or wanted to work and 50.0 per cent of those receiving Carer Payment were either employed or wanted to work.
Caring status can change for a number of reasons, including the death of the person being cared for, the requirement for institutional care, partial or full recovery of the person requiring care and a change of primary carer. Many carers are of working age with 78.1 per cent being aged less than 66 years and 48.3 per cent are less than 50 years of age. Given this age distribution of carers, and the fact that the duration of caring will not be for the remainder of carers working lives, many will cease to have caring responsibilities while they are still of working age.

The major factors that are associated with lower rates of employment for female carers are having a low level of educational attainment, poor health of the carer, providing full-time care, caring for a child with a disability and not having people outside the household to provide support.

As expected, those receiving Carer Allowance only were much more likely to be employed and less likely to be unemployed or marginally attached to the labour force than those receiving Carer Payment. Interestingly there does not appear to be a relationship between type of payment received and the desire to work.

Providing full-time care is estimated to reduce the probability of being employed and increases the probability of not wanting to work (NILF and does not want to work). Importantly providing full-time care was also associated with a higher rate of wanting to work (unemployed or marginally attached). This suggests that additional regular respite care being available to carers is likely to result in a significant proportion of carers who are unemployed or marginally attached becoming employed.

The fact that a large number of not-employed carers of working age expressed a desire to be in paid employment suggests that supporting such carers may be worthwhile and result in higher levels of social inclusion. Given that carers cited workplace flexibility as one of the barriers to finding a job (see Gray et al., 2008), encouraging increased workplace flexibility may provide opportunities for carers to be involved in the workforce. Suitable alternative care arrangements, the other major barrier to employment cited by carers in the FCPD Survey, implies that appropriate and routinely available care arrangements would also help facilitate increased employment rates. Maintaining paid employment and attachment to the workforce are particularly important given that many carers, particularly those of working age, will not remain carers all their life.

12 Administrative data on recipients of Carer Payment and Carer Allowance, reveal that in 2006 11.6 per cent were aged 18 to 35 years, 35.7 per cent were aged 36 to 50 years, 30.6 per cent were aged 51 to 65 years and 21.9 per cent were aged 66 years or more.

13 In the FCPD Survey the percentage of carers who use respite care is 13.0 per cent and 58.1 per cent of those who accessed respite used it for 20 hours or less a month. The use of respite care in the FCPD Survey is not unusual, data from the 2003 ABS Survey of Disability and Carers suggests that 87 per cent had never used respite care and 17 per cent of carers reported they wanted access or further access to respite care. Interestingly, the greatest percentage of carers who wanted access or further access to respite care were those caring for a child under the age of 15 (41 per cent). The data in this study suggests that many of these carers would use access to respite care to enable them to work.
Appendix A. Descriptive Statistics and Regression Estimates

Table A1 - Descriptive Statistics for Multinomial Logistic Regression

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>45.7138</td>
<td>10.0948</td>
</tr>
<tr>
<td>Age squared</td>
<td>2191.4980</td>
<td>926.3557</td>
</tr>
<tr>
<td>Carer Allowance only</td>
<td>0.7517</td>
<td>0.4303</td>
</tr>
<tr>
<td>University degree or diploma (Omitted variable)</td>
<td>0.3005</td>
<td>0.4588</td>
</tr>
<tr>
<td>Trade, apprenticeship, workplace training or Certificate I-IV</td>
<td>0.1081</td>
<td>0.3108</td>
</tr>
<tr>
<td>Year 12 only</td>
<td>0.3577</td>
<td>0.4797</td>
</tr>
<tr>
<td>Poor health</td>
<td>0.2814</td>
<td>0.4500</td>
</tr>
<tr>
<td>Providing full-time care</td>
<td>0.2862</td>
<td>0.4523</td>
</tr>
<tr>
<td>Partner is employed</td>
<td>0.4953</td>
<td>0.5004</td>
</tr>
<tr>
<td>Cares for an able-bodied child</td>
<td>0.4213</td>
<td>0.4942</td>
</tr>
<tr>
<td>Person with a disability is the carers partner</td>
<td>0.2671</td>
<td>0.4428</td>
</tr>
<tr>
<td>Person with a disability is an adult child</td>
<td>0.2703</td>
<td>0.4445</td>
</tr>
<tr>
<td>Person with a disability is a child</td>
<td>0.5151</td>
<td>0.5002</td>
</tr>
<tr>
<td>Household support</td>
<td>0.5978</td>
<td>0.4907</td>
</tr>
<tr>
<td>Supporters outside the household</td>
<td>0.8394</td>
<td>0.3674</td>
</tr>
<tr>
<td>Hours of support-household</td>
<td>28.8057</td>
<td>50.2173</td>
</tr>
<tr>
<td>Hours of support-outside the household</td>
<td>12.2526</td>
<td>26.2115</td>
</tr>
<tr>
<td>Number of observations</td>
<td>629</td>
<td></td>
</tr>
</tbody>
</table>

Appendix A. Descriptive Statistics and Regression Estimates (continued)

Table A2 - Results from Multinomial Logistic Regression

<table>
<thead>
<tr>
<th></th>
<th>NILF and Doesn’t want to work compared to Employed</th>
<th>Unemployed or Marginally attached compared to Employed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
</tr>
<tr>
<td>Age</td>
<td>-0.5187*</td>
<td>0.1071</td>
</tr>
<tr>
<td>Age2</td>
<td>0.0063*</td>
<td>0.0012</td>
</tr>
<tr>
<td>Carer Allowance only</td>
<td>-0.5551</td>
<td>0.3138</td>
</tr>
</tbody>
</table>

**Educational attainment**

- Trade, apprenticeship, workplace training or Certificate I-IV: 0.5243, 0.3495, 0.3033, 0.2678
- Year 12 only: 0.8508*, 0.4333, 0.2415, 0.3711
- Less than Year: 12.12163*, 0.3448, 0.9920*, 0.2764
- Poor health: 0.1942, 0.2815, 0.8266*, 0.2242
- Providing full-time care: 1.2614*, 0.2719, 0.8151*, 0.2510
- Person with a disability is carers partner: 0.6979, 0.5631, 0.0950, 0.4993
- Person with a disability is an adult: -0.0031, 0.5518, 0.2611, 0.4873
- Person with a disability is a child: 0.0551, 0.6066, 0.9016, 0.5273
- Partner is employed: -0.2599, 0.3226, -0.5379*, 0.2700
- Care for an able-bodied child: 0.1942, 0.2815, 0.0622, 0.2285
- Household supporters: 0.1985, 0.3547, 0.1590, 0.3050
- Supporters outside the household: -0.4016, 0.3616, -0.8337*, 0.2839
- Hours of support-household: 0.0016, 0.0026, -0.0028, 0.0024
- Hours of support-outside the household: -0.0042, 0.0050, -0.0007, 0.0039
- Number of observations: 629
- Pseudo R2: 0.1820

**Tests of IIA**

- Hausman: 1.270, 0.567
- Small-Hsiao: 12.390, 26.444

**Notes:** ‘Employed’ is the base category. The population comprises female carers receiving Carer Allowance or Carer Payment and Carer Allowance aged 18 – 64 years. The omitted categories are university of diploma level qualification and the carer provides one to 20 hours of care per week. *indicates that the coefficient is statistical significant at the five per cent or better confidence level.

**Source:** FCPD Survey 2006.
References


