



BANKWEST CURTIN ECONOMICS CENTRE

WORKING PAPER SERIES

13/10: ELDER CARE AND THE EMPLOYMENT INTENTIONS OF MATURE AGE WOMEN

Siobhan Austen, Rachel Ong, Therese Jefferson, Rhonda Sharp and Gill Lewin This paper was written by researchers affiliated with the Bankwest Curtin Economics Centre ('the Centre'). While every effort has been made to ensure the accuracy of this document, the uncertain nature of economic data, forecasting and analysis means that the Centre, Curtin University and/or Bankwest are unable to make any warranties in relation to the information contained herein. Any person who relies on the information contained in this document does so at their own risk. The Centre, Curtin University, Bankwest, and/or their employees and agents disclaim liability for any loss or damage, which may arise as a consequence of any person relying on the information contained in this document. Except where liability under any statute cannot be excluded, the Centre, Curtin University, Bankwest and/or their advisors, employees and officers do not accept any liability (whether under contract, tort or otherwise) for any resulting loss or damage suffered by the reader or by any other person.

The views in this publication are those of the authors and do not represent the views of Curtin University and/or Bankwest or any of their affiliates. This publication is provided as general information only and does not consider anyone's specific objectives, situation or needs. Neither the authors nor the Centre accept any duty of care or liability to anyone regarding this publication or any loss suffered in connection with the use of this publication or any of its content.

Authorised Use

© Bankwest Curtin Economics Centre, December 2013 Bankwest Curtin Economics Centre Working Paper Series

ISSN: 2202-2791

ISBN: 978-1-925083-12-5

Siobhan Austen¹, Rachel Ong¹, Therese Jefferson², Rhonda Sharp³ and Gill Lewin⁴

- ¹School of Economics and Finance, Curtin University, Australia
- ² Curtin Graduate School of Business, Curtin Business School, Curtin University
- ³ Division of Education, Arts and Social Sciences, University of South Australia
- ⁴ School of Nursing and Midwifery, Curtin University, Australia

Suggested Citation

Austen, Siobhan, Rachel Ong, Therese Jefferson, Rhonda Sharp and Gill Lewin. 2013. "Elder care and the employment intentions of mature age women." Bankwest Curtin Economics Centre Working Paper 13/10, Perth: Curtin University.

This publication contains confidential and propriety information of the Bankwest Curtin Economics Centre. All of the material in this publication is for your exclusive use and may not be otherwise used or modified for or by any other person or sold to or otherwise provided in whole or in part to any other person or entity without the prior written consent of the Bankwest Curtin Economics Centre.

For subscribers' use only. NOT TO BE PHOTOCOPIED.

A standard hard copy or electronic subscription to this publication entitles employees of the same organisation and same physical location as the subscriber to the use of its contents for internal reporting purposes only. Multiple user licenses are available for organisations with more than one location.

ELDERCARE AND THE EMPLOYMENT INTENTIONS

OF MATURE AGE WOMEN

Siobhan Austen¹, Rachel Ong, Therese Jefferson, Rhonda Sharp & Gill Lewin

1. INTRODUCTION

This paper addresses the employment impacts of eldercare, which we define as the informal, uncompensated care provided to elderly people. This unpaid work is a vital component of the 'care economy' that utilises time, emotional and other resources of family, friends and others to provide for the needs of elderly people. According to Calvero (2013), eldercare is likely to surpass childcare as a more pressing concern for organisations and their employees in coming decades. However, when compared to the extensive studies of childcare and other work-family issues, the available research evidence on its employment impacts is quite small.

The importance of research into the employment impacts of eldercare can be related to three broad trends in the population and labour market. First, due to population ageing, a growing number of workers are joining the age group where eldercare roles typically arise. Second, also due to population ageing, an increased number of older people are in need of care. Third, the individuals who typically provide the majority of eldercare, namely mature age women², are participating in paid work at an increasing rate. Thus, concerns about how to manage eldercare and paid work responsibilities and commitments

1

¹ Corresponding author: email: Siobhan.austen@cbs.curtin.edu.au.

² See Gross (2011).

are becoming important to a growing number of workers, families and organisations.

These demographic and labour market trends, which are relevant to a range of industrialised countries, can be illustrated with Australian data. These show that 40 per cent of all employed workers are now aged over 45 (ABS, 2009). They also indicate that the number of people living with dementia will almost treble by 2050 (AIHW, 2012). Also evident in the data is women's role in the provision of care. Women (as wives and daughters of the care recipient) comprise almost three-quarters of the primary carers for people who either have a long-term health condition, or who are frail or aged (ABS, 2010). Finally, it is clear that mature age women are increasingly active in the paid workforce. In the twenty years to 2003, the labour force participation rate for women aged 45-64 almost doubled – from 35 to 60 per cent (ABS, 2004).

The importance of research into the employment impacts of eldercare also derives from the fact that it has a distinct context and trajectory and, as such, the nature of its impacts on employment is likely to be different from those of childcare. As Calvero (2013) explains, the need for eldercare usually occurs unexpectedly (beginning, for example, with the sudden onset of an illness or an accident), increases over time (also see Singleton, 2000), and entails the role reversal of children caring for their parents. Eldercare roles also commonly create distinct emotional challenges, given their association with decline, and death, and their possible links to unresolved family conflicts (Smith, 2004). Evidence suggests that eldercare can create heavy personal demands, including lack of sleep, fatigue, anxiety, depression and social isolation (AIHW, 2010).

Studies that have specifically targeted the employment effects of eldercare have tended to highlight how the configuration of paid work and eldercare roles can create conflicts. At the extreme, the two roles cannot be sustained, causing some caregivers to leave paid work. A range of studies has identified a negative relationship between eldercare and both workforce participation and the number of paid work hours (Schneider et al., 2012; Kotsadam, 2011; Latif, 2006; Liu et al. 2010; Carmichael and Charles, 2003a, 2003b; Colombo et al., 2011; Crespo and Mira, 2010; Heitmueller, 2007). Katz et al. (2011) found that eldercare caused disruptions in the work functioning of caregivers due to absenteeism. However, Keene and Prokos (2007) did not identify differences in the rates of absenteeism amongst caregivers and non-caregivers.

The current study extends the evidence base on the employment impacts of eldercare by contributing the results of a new analysis of how, for mature age women, performing an eldercare role can affect the intention to stay or leave a current paid work role. Schneider et al. (2012) conducted a similar study using cross-sectional data from a sample of 902 employed Austrians, including 471 caregivers. They found that, amongst women, eldercare was associated with a higher relative risk of anticipating a job change.

The current study utilises two waves of survey data collected in 2011 and 2012 from a sample of 1978 mature age women employed in Australia's aged care sector. The cross-sectional aspects of this data set are used in the first part of the study to examine the association between eldercare and the intensity of thoughts about leaving the sector. The longitudinal aspects of the data set are then exploited to examine the association between changes in eldercare roles and changing turnover intention.

An important additional feature of the analysis presented in this paper is the focus given to how the employment impacts of eldercare might differ with - a caregiver's economic situation. The standard approach to theorizing the employment impacts of eldercare (as noted above) is to focus on the time demands of the roles and how these add to the difficulties of maintaining employment (see, for example, Schneider et al. 2012). However, eldercare can also add to the financial need to remain employed. As such, across groups of women, distinguished by the economic resources of their households, the employment impacts of eldercare – and the appropriate organisational and policy response to the issue – may differ.

2. DATA AND APPROACH

The analysis of the employment impacts of eldercare uses data collected in the Australian Mature Age Women in Aged Care survey (hereafter "the MAWAC" survey). This survey was conducted in two waves from 2011 to 2012 with the aim of providing longitudinal data relevant to the workforce decision-making of mature age women. The survey focused on mature age women because studies of the employment experiences of this group are rare – and the group is growing in significance with demographic change and increased rates of workforce participation amongst women, as noted above (also see Austen & Ong 2010). The survey focused on the aged care sector as it represents an important sector for mature age women (95 per cent of Australian aged care workers are women and their median age is 50). The survey also focused on a particular sub-set of the workforce as the available economy-wide data sets offer relatively small samples of

individuals with eldercare roles and limited details on either work- or care-related variables (see Austen & Ong, 2013, for a discussion of the limitations of the Australian data and Johnson & Lo Sasso, 2000, for an international perspective). By limiting the survey to a single sector it was possible to reduce the amount of heterogeneity in the sample and thus isolate more clearly the effects of key variables of interest – such as different eldercare roles or economic circumstances.

The initial ("wave 1") MAWAC survey was distributed nationally to aged care providers through the peak industry organisation, Aged and Community Services Australia (ACSA). Nineteen providers identified potential study participants from their personnel data and mailed the survey to relevant employees on the study team's behalf. The survey was mailed to 6,867 women aged 45 years or over and was completed and returned by 2,850³. Approximately 2,000 women provided responses to all the questions that are relevant to the current investigation. A follow up MAWAC survey was sent to each of the 6,897 women who received the initial survey. Responses were received from a total of 2,040 women who were still employed. This included 931 who had responded to the initial survey and this gave us data for 703 women who responded to the full set of relevant questions in both surveys. This latter set of responses is used in this paper for the longitudinal investigation of the links between changes in eldercare roles and changing turnover intention.

-

³ The initial survey was also made available online and promoted on both ACSA's and relevant union websites. An additional 1,109 individuals completed this survey. However, because it was not possible to follow-up the online respondents with a subsequent survey, their inclusion in the current study would increase the likelihood of attrition bias – reducing the ability to compare the results of the cross-sectional vs longitudinal analyses. They are, therefore, omitted from this particular study.

The multi-purpose surveys were the starting point for analyses of several different aspects of employment decision-making by mature age women. One specific aspect for analysis was the effect of informal care roles on employment decision-making, including anticipated exit from the sector, the key focus of this paper. To this end, survey data were collected on socio-demographic and work-related variables that are commonly hypothesized to affect the evaluation of continued employment. To maximize the opportunity to compare the results of this study and Schneider et al.'s (2012) findings, turnover intention is related, first, to the worker's accumulated human capital (via, for example, their labour market experience); second, to possible constraints on the worker's ability and/or willingness to engage in paid work (linked, in turn, to their health, age and informal care commitments); and, third, to their workplace context and the conditions of employment (such as their access to flexible work arrangements).

Measures

The outcome variable in the first stage of the analysis is intention to leave the aged care sector. Intention to leave (ITL) aged care was measured by a question in the wave 1 survey that asked, first, "In the past year have you ever thought about leaving the aged care sector?" A follow-up question asked: "How often do you have this thought?" The possible responses were "At least once a year"; "At least once a month"; "At least once a week"; and "Every day". These responses were grouped into two categories: 1) 'Low ITL', where the response indicated that the person had not thought about leaving or had thought about leaving only once in the past year; and 2) 'High ITL', where the response indicated the person had thought about leaving at least once a month, week or day. Whilst

the dependent variable captures only the subjective probability of leaving the current job rather than actual separation, empirical evidence from a range of studies, summarized by Schneider et al. (2012), indicates that turnover intention represents a good proxy for actual turnover.

The care-related measures in this analysis comprise the caregiver status and weekly hours of caregiving. The caregiver status variable identifies workers who provide more than seven hours of care each week to an ill or disabled partner or family member, other than a child⁴. The time demands of informal eldercare are measured by the weekly hours dedicated to this care.

As noted above, the selection of work-related variables was guided by an attempt to match, where possible, Schneider et al.'s (2012) analysis of the links between eldercare and intention to leave. They include measures of wages, hours of work, work climate and employment contract. In this study, because the focus is on a single industry, wage differences are small and defined largely by occupation. The key occupational groups, nurses and carers, are distinguished. Measures of weekly working hours are also included (specifically, measures of whether the respondent works fulltime (35 hours weekly) or part time hours), as are measures of the respondent's perception of her ability to determine her working hours. Workplace climate is measured in this part of the study from the responses to questions on the quality of relationships with higher-level management, supervisors and colleagues.

⁴ Because care roles relating to children are identified separately, the care roles measured here relate to adult family members.

Following Schneider et al. (2012), the estimation of the relationship between eldercare roles and ITL incorporates controls for the worker's age, health and household composition (partnered status and number of dependent children), perceived ability to find another job and job experience. Because the sample is restricted to aged care workers, we do not require controls for education – as differences in education are closely tied to differences in occupation (that is, nurses commonly have a university or college-based qualifications, whilst carers typically have limited post-school education). For similar reasons, controls for self-employment or salaried employment were not required.

In the second stage of our analysis Schneider et al.'s (2012) approach is extended to examine whether the association between eldercare and ITL differs with the caregiver's economic situation. Economic literature on the 'added worker effect' provides reasons to expect these types of differences (see, for example, Lundberg, 1985). It highlights how a fall in family income brought about by an episode of unemployment by the primary breadwinner might increase the incentive for other adult family members to enter paid work. A similar logic can be applied to the analysis of illness or disability in the family. That is, such life events might increase the economic imperative for other family members to enter into, or maintain their engagement with, paid work. Furthermore, these 'positive' effects on employment can be anticipated to be highest for individuals whose economic situation does not afford them the ability to subsist without engaging in paid work. This part of the study compares the association between eldercare and ITL between two groups of mature age women: those who rate their economic situation as "strained or very strained" and those who rate it as "moderate, good or very good".

The final stage of the analysis exploits the longitudinal aspects of the MAWAC data to examine how changes in eldercare impact on ITL. To isolate these effects the dependent variable measures whether ITL increased between the waves of the survey or not⁵. The set of explanatory variables identifies three eldercare groups: those who increased their informal eldercare hours in the 12 months between the surveys; those who reduced these hours; and those who engaged in a care role for the same amount of time in both waves. The default category comprises those mature age women who did not engage in an eldercare role in either wave. In this part of the analysis, several control variables are also defined in terms of change, rather than levels. Increased ITL is explored in relation to change in the worker's economic situation, health, partner's employment status, number of children and working conditions, as perceived by the worker⁶. Controls are retained for the worker's perceived outside job opportunities, occupation, age, part time work and workforce experience.

RESULTS

Table 1 reports the characteristics of the samples used in this analysis. Importantly the data in the table indicate that the sample for the longitudinal analysis, although much smaller than the Wave 1 sample, has similar characteristics to the original sample, suggesting the longitudinal analysis is not heavily affected by attrition bias. It can be noted, however, that the rate of part time work is marginally higher in the sample used for the longitudinal analysis, as is the proportion of the sample with good relationships with their managers. This could reflect the influence of these factors on the retention of

-

⁵ The small number of cases (n=30) where ITL was at the highest possible level in Wave 1 were excluded from the analysis to account for the fact that no increase could be recorded in these cases.

⁶ The relevant survey question asked whether, during the past 12 months, working conditions had improved, stayed the same, or worsened.

workers (and, thus, their retention in our sample for the longitudinal analysis).

Table 1: Sample characteristics

Tuble 11 bumple characteristics	Wave 1	(n=2024)	Panel (n=703)		
	mean	sd	mean	sd	
Outcome: High ITL (Thinks about leaving daily, weekly or monthly)	0.271	0.445	0.259	0.438	
Regressors:					
7 or more eldercare hours per week	0.103	0.304	0.091	0.288	
Part time	0.776	0.417	0.784	0.412	
High ability to control working hours (reference category is moderate or low)	0.374	0.484	0.393	0.489	
Able to take time off for family reasons	0.833	0.373	0.842	0.365	
Relationship with management is good or very good (reference category is moderate or poor)	0.535	0.499	0.561	0.497	
Good relationship with supervisor	0.927	0.260	0.933	0.250	
Good relationships with colleagues	0.976	0.152	0.974	0.158	
Occupation is nurse (reference category is carer)	0.223	0.416	0.212	0.409	
Age (years)	55.109	5.845	55.420	5.615	
Self assessed health is very good or excellent (reference category is poor, fair or good)	0.623	0.485	0.629	0.483	
Partner is employed full time (reference category is no partner or partner not employed)	0.453	0.498	0.472	0.500	
Partner is not employed full time (reference category is no partner or partner not employed)	0.224	0.417	0.228	0.420	
No dependent children	0.710	0.454	0.744	0.437	
Proportion of time in paid work since leaving school > 66%	0.108	0.311	0.118	0.323	
Able to find another job	0.750	0.433	0.738	0.440	
Economic situation is strained or very strained ((reference category is neither good nor bad, good or very good)	0.230	0.421	0.218	0.413	

Table 2, below, summarises the results of binomial logistic regression models on intention to leave. Positive/negative coefficients (β) indicate increased/decreased relative log odds for intention to leave the current sector of employment. The results of three models are presented in Table 2. The first is of intention to leave across the wave 1 sample and is aimed at establishing a comparison with Schneider et al.'s (2012) analysis of the links between eldercare and intention to leave. The remaining columns in Table 2 show results of intention to leave separately for workers who rate their economic situation as "strained or very strained", and for those who rate it as "moderate, good or

very good".

Results on the correlates of intention to leave

When measured across the entire wave 1 sample (of mature age women working in the aged care sector), involvement in an eldercare role did not have a statistically significant impact on intention to leave. Instead, the strongest correlates of ITL were occupation and characteristics of the work environment and, in particular, the quality of working relationships. The odds of high ITL amongst nurses is almost double that of carers. However, these odds are 66 per cent lower among the mature age workers in the sector who perceive good or very good relationships between employees and management in their organisation (as compared to moderate, poor or very poor relationships). Workers who report good relationships with their immediate supervisor have odds of high ITL that are 50 per cent lower than those of workers with poor relationships. The ability to take time off for family reasons reduces the odds of high ITL by 43 per cent. When personal circumstances are examined, the presence of dependent children in the household raises the odds of high ITL by 30 per cent, whilst living in a good or very good (as compared to a poor, very poor or moderate) economic situation has the opposite effect.

Table 2: Estimation results for the Wave 1 sample

Table 2: Estimation results for the Wa	ive 1 sam				M. 112	1		M. 112	
	r - /		(aconomi	Model 2	e etrainad	(economi	Model 3		
			`	omic situation is strained or very strained)		(economic situation is good, very good or neither good nor bad)			
	β	Signif.	exp(β)	β	sig	exp(β)	β	sig	exp(β)
7 or more eldercare hours per week	0.002	0.992	1.002	-0.957	0.004	0.384	0.450	0.038	1.569
Job characteristics									
Part time	0.237	0.084	1.268	0.269	0.284	1.309	0.208	0.212	1.232
High ability to control working hours (reference category is moderate or low)	0.193	0.102	1.213	0.285	0.233	1.330	0.147	0.284	1.159
Able to take time off for family reasons	-0.558	0.000	0.573	-0.499	0.042	0.607	-0.582	0.001	0.559
Relationship with management is good or very good (reference category is moderate or poor)	-1.08	0.000	0.340	-0.816	0.001	0.442	-1.175	0.000	0.309
Good relationship with supervisor	-0.679	0.001	0.507	-0.571	0.088	0.565	-0.802	0.001	0.448
Good relationships with colleagues	-0.255	0.442	0.775	-0.553	0.331	0.575	-0.251	0.544	0.778
Occupation is nurse (reference category is carer)	0.667	0.000	1.947	0.491	0.077	1.633	0.743	0.000	2.101
Personal characteristics									
Age (years)	-0.007	0.552	0.993	0.015	0.498	1.016	-0.011	0.416	0.990
Self assessed health is very good or excellent (reference category is poor, fair or good)	-0.02	0.864	0.980	-0.246	0.257	0.782	0.057	0.685	1.059
Partner status: reference category is no partner									
Partner is employed full time	0.053	0.691	1.055	0.381	0.134	1.464	-0.003	0.985	0.997
Partner is not employed full time	0.075	0.625	1.078	0.17	0.538	1.185	0.061	0.745	1.063
No dependent children	0.264	0.053	1.303	0.297	0.246	1.346	0.318	0.056	1.374
Proportion of time in paid work since leaving school > 66%	-0.155	0.411	0.856	-0.227	0.530	0.797	-0.168	0.456	0.845
Able to find another job	0.173	0.199	1.189	0.458	0.048	1.581	0.070	0.678	1.072
Economic situation is good or very good (reference category is strained, very strained or neither good nor bad)	-0.362	0.003	0.696						
Constant	0.486	0.476	1.626	-0.469	0.718	0.626	0.608	0.472	1.837
Number of observations	1978			449			1529		
Cox-Snell R ²	0.112			0.107			0.114		
Nagelkerke R ²	0.165			0.147			0.174	_	

Results on how the employment impacts of eldercare roles vary with the individual's economic circumstance

The importance of examining how the employment impacts of eldercare roles might differ with the individual's economic situation is highlighted by the results on Models 2 and 3 in Table 2. The results on Model 2, relating to the sub-sample of workers whose economic situation was strained or very strained, indicate that eldercare *reduces* the odds of high ITL by more than 60 per cent. Most of the other relationships measured in this model followed the same pattern as the results on Model 1. That is, good relationships with supervisors and management reduced the odds of high ITL, and nurses had relatively high odds of high ITL. It is interesting to note, however, that in this sub-sample, the presence of children was not a statistically significant source of variation in the odds of high ITL, whilst having a high ability to find other work increased the odds of high ITL by 58 per cent.

The results on Model 3 (relating to a sub-sample of mature age women with more favourable economic circumstances) show, in contrast, a positive and significant relationship between eldercare and the odds of high ITL. In this group, eldercare *increases* the odds of high ITL by 57 per cent. The other measured relationships followed a similar pattern to those from Models 1 and 2: The quality of relationships with management and supervisors is an important source of variation in the odds of high ITL, as is occupational group and the ability to take time off to attend to family needs. However, contrasting the findings on Model 2, in this sub-sample, the presence of dependent children increases the odds of high ITL, whilst the presence of good outside

job opportunities is not a significant source of variation in these odds.

Results on the correlates of changes in intention to leave

Table 3, below, displays the results of a multinomial regression of increased intention to leave, using data from age care workers who participated in the two waves of the MAWAC survey. These data cast additional light on the employment impacts of eldercare. They show, firstly, that changes in ITL are associated with changes in eldercare; the time devoted to eldercare roles rises the odds of ITL increasing also rise, and vice versa, by a substantial amount. In these results, the odds of a rise in ITL are almost 60 per cent higher among workers who increased their eldercare roles than it is among those without eldercare roles. These odds are approximately 50 per cent lower for the workers with reduced eldercare roles.

The data in Table 3 also confirm the importance of work environment factors in the determination of ITL. Compared to workers whose work environment remains unchanged, the odds of increased ITL are approximately 60 per cent lower for the workers who perceive improvements in their work environment, and 75 per cent higher for those who perceive deteriorations.

Supporting earlier findings, increases in the number of dependent children increased the odds of higher ITL. However, this relationship is not symmetrical: reductions in the number of dependent children in the household do not lessen the likelihood of increased ITL.

Table 3: Estimation results for the longitudinal sample

	β	Signif.	exp(β)
Eldercare role: never (reference category)			
increased	0.452	0.064	1.572
decreased	-0.679	0.055	0.507
unchanged but positive	-0.079	0.896	0.924
Job characteristics			
Part time job in wave 1	-0.391	0.066	0.677
Work environment: unchanged (reference category)			
improved	-0.849	0	0.428
worsened	0.56	0.009	1.751
Occupation is nurse (reference category is carer)	-0.005	0.983	0.995
Personal characteristics			
Age	-0.006	0.739	0.995
Self-assessed health: unchanged (reference category)			
Improved	0.312	0.248	1.366
Worsened	-0.114	0.573	0.892
Partner's employment status: unchanged or improved (reference category)			
partner moved out of FT work	0.23	0.517	1.259
Dependent children: Number unchanged (reference category)			
Increased	0.687	0.074	1.988
Decreased	-0.31	0.376	0.734
Proportion of time in paid work since leaving school > two-thirds	-0.045	0.873	0.956
Able to find another job	-0.319	0.118	0.727
Economic situation: unchanged (reference category)			
Improved	0.165	0.457	1.18
Worsened	0.243	0.282	1.274
Constant	-0.362	0.716	0.696
Number of observations	735		
Cox-Snell R ²	0.079		
Cox-Snell R	0.077		

SUMMARY AND DISCUSSION

Several of the findings of this paper on the determinants of ITL support those reported by Schneider et al. (2012) and, thus, strengthen the evidence base on this issue. In parallel with Schneider et al., (also see Carmichael et al. 2008), we find evidence that flexible working arrangements (specifically, the ability to take time off to respond to family needs), increase the strength of job attachment. Flexible working arrangements can be important for reconciling the demands of paid work and eldercare

We also find that good relationships with managers and supervisors increase the strength of job attachment (Schneider et al. 2012 report a strong negative association between poor workplace climate and ITL for women). Indeed, the intensity of thought about leaving the aged care sector appears to be heavily affected by the quality of these relationships – pointing to the significant role that organisations can play in ensuring the retention of their workforces.

However, on the key issue addressed in this paper, namely the employment impacts of eldercare, our results contrast with those of Schneider's et al. (2012), in as much as we fail to find (at least in the cross-sectional analysis of the whole sample population) evidence of a significant link between carer status and turnover intention. Schneider et al. find a *negative* association between carer status and anticipated job change, although they find no significant association between carer status and anticipated labour market exit.

Some of these apparent inconsistencies are resolved when we extend the analysis to consider the influence of the worker's economic situation. Our findings show that the impact of eldercare on turnover intention varies with the economic situation of the worker. Eldercare is shown to be associated with reduced odds of high ITL for mature age women with strained or very strained economic circumstances. However, for mature age women with good or very good economic circumstances, eldercare is linked to increased odd of high ITL. Our interpretation of the observed negative association between eldercare and ITL for women with strained economic circumstances is that it reflects an 'added worker' effect on individual labour supply; that the imperative for mature age women with strained economic circumstances to stay in paid work increases in the presence of eldercare roles. This is an important addition to the existing literature on the employment impact of eldercare (and, indeed, other informal care roles), which has tended to emphasise the time demands of the roles and how these add to the difficulties of maintaining employment. However, the main significance of the result derives from its importance for organisations wanting to respond to the impacts of eldercare. Specifically it highlights the importance of paid work for some individuals involved in eldercare – and, thus, the particular need for work environments that enable individuals to combine their paid and informal roles.

Our findings on the relationship between economic circumstance, eldercare and employment impacts may also have methodological importance. That is, it can help to explain the weak association that is commonly measured in studies of the link between informal care roles and labour market participation in heterogeneous samples. It could be

the case that the weak association results from an averaging of a positive effect on employment of informal care roles in one group (such as those with relatively poor economic circumstances) and a negative employment impact in another (such as those with better economic circumstances). The inclusion of this factor appears to add clarity to the nature of the relationships.

This paper also adds a longitudinal perspective on the employment impacts of eldercare. A commonly cited advantage of panel data is the potential it offers to establish more clearly the chain of causality. That is, with cross-sectional data, a measured inverse association between employment and eldercare could reflect either a negative impact of eldercare on employment or a greater tendency for individuals who are not engaged in paid work to take on eldercare roles. When the study is of ITL this risk is reduced. That is, it is less likely that ITL (as opposed to employment) will be causally relevant to eldercare. However, the panel data does add to the analysis of the employment impacts of eldercare by adding controls for heterogeneity in the sample: with longitudinal data we can study how, on average, ITL changes for individuals when/if their eldercare roles change. The results presented in the paper suggest that changes in eldercare have a substantial impact on ITL: on average, ITL rises with increases in eldercare and falls with reductions in these roles. These impacts are substantial – with the odds of an increase in ITL being almost twice as large amongst workers who experience an increase in eldercare than amongst those who experience a reduction in the time spent on eldercare.

These findings, we believe, represent an important contribution to the evidence base on

the employment impacts of eldercare – and they should assist other researchers to structure their inquiries into the issue. However, there are also some limitations of the current investigation which future research might be able to address. First, we rely on ITL as a proxy for job exit. European studies provide evidence to support this approach (see Schneider et al. 2012). However, ideally, with the development of larger panels, future studies will be able to utilize more direct measures of change in employment status.

Our study is also limited to the aged care sector, raising questions about the ability to generalize its results to other parts of the workforce. The sector features a range of working conditions (especially a very high proportion of part time and shift work) that may affect the employment impacts of eldercare roles. For example, interview data collected as part of the larger MAWAC study indicates that many women choose to work in the sector because its work patterns allows them to more easily accommodate their informal care roles. Future studies of other sectors could contribute important insights to how the employment impacts of eldercare roles can vary across the various parts of the labour market.

It is likely that the women who volunteered their time to complete the MAWAC survey had relatively good English literacy skills. It is also likely that our sample contains a higher number of people with permanent contracts than is the norm in the aged care sector. Employees with casual contacts, especially if they are working relatively few hours, typically have less attachment to the workforce and might be expected to be less likely to spend their time completing a survey on their work. Future studies could aim to

purposively sample workers with characteristics who tend to be missed or underrepresented in broader studies of the factors affecting employment.

Ideally, future research will also explore the different dimensions of eldercare (such as the location, type and frequency of care). Our study only considered binary indicators, such as whether care was provided to an elderly family member or not. This is an important limitation of our (and most other large) data set. Furthermore, because our measure was only based on responses to a survey question that asked about the number of hours taken up in eldercare, it is possible that we understate the incidence of such care.

As Calvero (2013) notes, if survey respondents do not consider tasks such as driving a parent or spouse to the doctor or helping with finances as "care", then they would not consider themselves "caregivers." Given that survey respondents ignore secondary activities, such as doing eldercare and other care roles together, the extent of eldercare roles and its effects may be further understated.

We conclude by emphasising that organisations and policy makers will increasingly need to respond to the eldercare needs of their employees, and that this will demand sensitivity to the various family and other circumstances of people within the workforce. The evidence compiled in this paper suggests that a supportive work environment and strong working relationships are likely to minimize the employment and other impacts of eldercare. The evidence in this paper suggests that paid work roles are beneficial to many caregivers (also see Rubin & White-Means, 2009) and this should create an important extra motivation for ensuring this type of assistance is provided where possible.

Acknowledgements

The authors gratefully acknowledge the financial support provided for this research by the Bankwest Curtin Economics Centre and the Australian Research Council (DP 1100127728). Excellent research assistance was provided by Dr Valerie Adams.

References

- Austen, S. and Ong, R. (2013), The effects of ill health and informal care roles on the employment retention of mid-life women: Does the workplace matter? *Journal of Industrial Relations*, 55(5), 663-680.
- Australian Bureau of Statistics (ABS) (2004), *Australian Labour Market Statistics*, October 2004, Cat. No. 6105.0, Canberra, ABS.
- ABS (2009), Australian Labour Market Statistics, January 2009, Cat. No. 6105.0, Canberra, ABS.
- ABS (2010), Measures of Australia's Progress, 2010, Cat. No. 1370.0, Canberra, ABS.
- Australian Institute of Health and Welfare (AIHW) (2010), *Primary carers of people with Arthritis and Osteoporosis*, Canberra, AIHW.
- AIHW (2012), Dementia in Australia, Canberra, AIHW.
- Calvero, L. (2013), Tug of war: caring for our elders while remaining productive at work, *The Academy of Management Perspectives* 27(3), 204-218.
- Carmichael, F, and Charles, S. (2003a), Benefit payments, informal care and female labour supply, *Applied Economics Letters* 10, 411–415.
- Carmichael, F. and Charles, S. (2003b), The opportunity costs of informal care: does gender matter? *Journal of Health Economics* 22, 781–803.
- Carmichael, F., Hulme C., Sheppard S., et al. (2008) Work–life imbalance: Informal care and paid employment in the UK, *Feminist Economics* 14(2), 3–35.
- Colombo, F., Llena-Nozal A., Mercier J. and Tjadens F. (2011), *Help Wanted? Providing and Paying for Long-Term Care*, OECD Health Policy Studies. OECD Publishing, OECD, Paris.
- Crespo, L. and Mira P. (2010), Caregiving to elderly parents and employment status of European mature women. CEMFI Working Paper No. 1007. CEMFI, Madrid.
- Gross, J. (2011), The Bittersweet Season, New York, Knopf.
- Heitmueller A. (2007), The chicken or the egg? Endogenity in labour market participation of informal carers in England, *Journal of Health Economics* 26, 536–559.
- Johnson, R.W. and Lo Sasso, A.T. (2000), The Trade-Off between Hours of Paid Employment and Time

- Assistance to Elderly Parents at Midlife, The Urban Institute.
- Katz, R., Lowenstein, A., Prilutzky, D., & Halperin, D. (2011), Employers' knowledge and attitudes regarding organisational policy towards workers caring for aging family members, *Journal of Aging and Social Policy* 23(2), 159-181.
- Keene, J. R., & Prokos, A. H. (2007), The sandwiched generation: Multiple caregiving responsibilities and the mismatch between actual and preferred work hours, *Sociological Spectrum*, 27[4), 365-387.
- Kotsadam, A. (2011), Does informal eldercare impede women's employment? The case of European welfare states, *Feminist Economics* 17(2), 121-144.
- Latif, E. (2006), Labor supply effects of informal caregiving in Canada, *Canadian Public Policy* 32(4), 413-429.
- Liu, L., Dong, X., and Zheng, X. (2010), Parental care and married women's labor supply in urban China, *Feminist Economics* 26(3), 169-192.
- Lundberg, S. (1985), The added worker effect, Journal of Labor Economics 3(1), 11-37.
- Rubin, R. M., & White-Means, S. (2009), Informal caregiving: Dilemmas of sandwiched caregivers, *Journal of Family and Economic Issues* 30, 252-267.
- Schneider, U. Trukeschitz, B., Mühlmann, R. and Ponocny, I. (2012), Do I stay or do I go?"—job change and labor market exit intentions of employees providing informal care to older adults, *Health Economics*, DOI: 10.1002/hec.2880
- Singleton, J. (2000), Women caring for elderly family members: Shaping non-traditional work and family initiatives, *Journal of Comparative Family Studies* 51(3), 367-375.
- Smith, P. (2004), Elder care, gender, and work: The work-family issue of the 21st century, *Berkeley Journal of Employment and Labor Law* 25(2), 351-399.

The Bankwest Curtin Economics Centre is an independent economic and social research organisation located within the Curtin Business School at Curtin University. The Centre was established in 2012 through the generous support from Bankwest (a division of the Commonwealth Bank of Australia), with a core mission to undertake high quality, objective research on the key economic and social issues of relevance to Western Australia.

The Centre's research and engagement activities are designed to infl uence economic and social policy debates in state and Federal Parliament, regional and national media, and the wider Australian community. Through high quality, evidence-based research and analysis, our research outcomes inform policy makers and commentators of the economic challenges to achieving sustainable and equitable growth and prosperity both in Western Australia and nationally.

The Centre capitalises on Curtin University's reputation for excellence in economic modelling, forecasting, public policy research, trade and industrial economics and spatial sciences. Centre researchers have specific expertise in economic forecasting, quantitative modelling, microdata analysis and economic and social policy evaluation.

A suite of tailored and national economic models and methods are maintained within the Centre to facilitate advanced economic policy analysis: these include macroeconomic and time series models, micro(simulation) models, computable general equilibrium (CGE) models, spatial modelling methods, economic index analysis, and behavioural modelling methods.

CONTACT

Bankwest Curtin Economics Centre Curtin University Kent Street Bentley WA 6102 GPO Box U1987 Perth WA 6845

Tel: +61 8 9266 2873

bankwesteconomicscentre@curtin.edu.au business.curtin.edu.au/bcec