

Measuring the value of unpaid household, caring and voluntary work of older Australians

RESEARCH PAPER NO 34, OCTOBER 2003

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Australian Institute of Family Studies

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National Library of Australia
Cataloguing-in-Publication Data

Measuring the value of unpaid household,
caring and voluntary work of older
Australians
Bibliography.

ISBN 0 642 39507 1.

Designed by Double Jay Graphic Design
Printed by Impact Printing

ISSN 1446 - 9863 (Print)
ISSN 1446 - 9871 (Online)

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Acknowledgments

For comments on this paper, the authors are indebted to Duncan Ironmonger from the University of Melbourne and Ann Sanson, Australian Institute of Family Studies. A previous version of this paper was presented to the International Social Security Association Fourth International Conference on Social Security, "Social Security in a long life society", Antwerp, 5-7 May 2003.

Abstract

As the populations in many countries age, the direct financial costs to governments are expected to rise due to the income support and health costs associated with an older population. A focus on these financial costs has led to an unduly negative, problem-oriented view of population ageing that neglects the contribution of older citizens to the social and economic wellbeing of the nation. This paper explores just one aspect of the contributions of older Australians and demonstrates that, as an age cohort, older people make valuable economic contributions to Australian society through the time they spend in voluntary work and in unpaid caring in their own household, to their family members in other households, and to non-family members in the wider community. It is estimated that Australians aged over 65 years contribute almost \$39 billion per year in unpaid caring and voluntary work and, if the unpaid contribution of those aged 55 to 64 years is included, this contribution rises to \$74.5 billion per annum.

Measuring the value of unpaid household, caring and voluntary work of older Australians

The "challenge" of population ageing

Like most countries throughout the world, Australia is experiencing the demographic transition of population ageing. Just a few statistics illustrate the magnitude of this transition. In 1976, 9 per cent of the Australian population were aged over 65 years. By 2001 this had risen to 12 per cent and is projected to reach 19 per cent by 2021 and 27 per cent by 2051 (ABS 2003b). The proportion of the very old population (aged 85 and over) is projected to treble from 1.5 per cent to more than 4 per cent between now and 2042 (Commonwealth of Australia 2002).

Population ageing is the result of two parallel demographic patterns: increased longevity and declining fertility. As people live longer, and there are fewer young people being born, older people inevitably become a larger proportion of the population. Australian life expectancies are among the highest of OECD countries, and this is expected to continue. In the past 40 years, Australian life expectancies have increased by more than 8.3 years for men and 7.6 years for women. Based on recent trends, men born in 2052 are projected to live to 84.2 years, an average of 7.2 years longer than those born in 2001. Women born in 2052 are projected to live to 87.7 years, 5.3 years longer on average (ABS 2003b). The fertility rate in Australia has declined from a high of 3.55 in 1961 to an alltime low of 1.73 in 2001 - well below replacement levels.

Population ageing is usually portrayed as a problem or, more politely, as a "challenge". In 1994, the World Bank (1994) brought out its recipe for "averting the old age crisis". It has since become almost commonplace to refer to pension schemes as being "in crisis", and to assert that they will not survive the impact of demographic ageing. Frequently, discussions are framed in terms of the "burden" of older people and an ageing population. The OECD has outlined a number of principles for action for *Maintaining Prosperity in an Ageing Society*. These principles focus upon encouraging later retirement and increased employment for older workers, fiscal consolidation, the development of advance-funded pension systems, and improving the cost-effectiveness of health and long-term care (OECD 1998). Others see the long-term strategy on ageing in terms of ensuring that people everywhere are able to age with security and dignity and to continue to participate in their societies as citizens with full rights.

There are two main reasons population ageing is seen to be a problem. One reason is economic and the other is social.

Economic concerns

The economic consequences are the most widely canvassed "problem" of an ageing population. The main reason for the anticipated economic costs of population ageing stems from greater financial dependency of older people and the consequent costs to government (and in turn the taxpayer). This dependency is normally expressed in terms of the aged dependency ratio - the ratio of the population aged 65 and over to those aged 15-64 years. The population aged over 65 years is deemed to be dependent since they typically are not available for paid work and frequently require income support and draw on other forms of government expenditure (for example, health).¹ It is interesting that the Treasury Intergenerational Report refers to the "aged to working age ratio" rather than the aged dependency ratio.

Between 1971 and 2002 the aged dependency ratio has risen from 14 per cent to 19 per cent. The Australian Retirement Income Modelling taskforce projects this ratio to increase to 30 per cent by 2031 and 41 per cent by 2042 (Commonwealth of Australia 2002) with most of the increase occurring between 2010 and 2030 as the baby boomers reach retirement age (Walker 1997).

Increasing aged dependency ratios are widely considered by governments to impose an increased financial burden on governments, and thus taxpayers, for health and income support. Treasury projects that between 2001 and 2041, health and aged care expenditure will increase from 4.7 per cent to 9.9 per cent of GDP and age and service pensions will increase from 2.9 per cent to 4.6 per cent of GDP (Commonwealth of Australia 2002).

These increased outlays must be met by taxation that will be levied on a relatively smaller workforce. It is projected that while there are currently more than five people of working age for every person aged over 65, this will halve by the middle of the century to just 2.5 people of working age for each person aged over 65 (Access Economics 1999).

While this increase in the aged dependency ratio will be partly compensated for by a decline in the child dependency ratio due to declining fertility, there will nevertheless be a net increase in the overall dependency ratio (that is, child and aged dependency ratios). More importantly, it has been estimated that the outlays associated with people aged over 65 are about four times greater than those associated with dependent children (Department of Community Services and Health 1990).

Alongside population ageing and increases in the aged dependency ratio, two other important developments have occurred in Australia that potentially exacerbate the "burden" of an ageing population.

The first of these is the declining labour market participation of older people, especially among men. The average retirement age for men in Australia is 58 years. Partly as a result of economic restructuring in the 1980s and 1990s older men are withdrawing from the labour market earlier and at increasing rates.

1 However, it has frequently been pointed out that this ratio has many problems and can unfairly perpetuate negative stereotypes of older people. The simple ratio does not take account of the contribution of older people who remain in the labour market, or that of younger people not in the labour market. Nor does it recognise the degree of financial independence of many older people.

Participation rates for men aged 55-59 years have declined from 91 per cent in 1970 to 75 per cent in 2003 (ABS 2003a) and are projected to decline to 70.7 per cent by 2011 (ABS 1999). Even though the declining rates for men have been compensated somewhat by the increasing rates of workforce participation of women in this age group, the labour market participation of men and women aged 55 years and over are low by comparison with similar OECD countries (Bishop 1999).

The second trend is the pressure on governments to maintain balanced budgets without overtly increasing taxation (Commonwealth of Australia 2002). This pressure to maintain a balanced budget is often couched in terms of generational equity (Rawls 1971). This has led governments to try to contain expenditures, especially in areas of escalating or projected expenditure growth such as health and income support.

The recent Intergenerational Report prepared by the Australian Treasury argues that: "The projections in this report suggest that, if policies are not adjusted, the current generation of taxpayers is likely to impose a higher tax burden on the next generation. The required adjustment in taxes and spending is about 5 per cent of GDP by 2041-2042, or \$87 billion in today's dollars. Governments will need to exercise sound policy management to minimise the tax burden transferred to the next generation, particularly if Australia is to keep its position as a lower taxing and spending country." (Commonwealth of Australia 2002: 1)

Social concerns

In the context of the financial implications of an ageing population, some ageing theorists (Preston 1984a; Thomson 1989; Laslett and Fishkin 1992; Saint-Etienne 1993; Sgritta 1997) have argued that population ageing will have profound social implications.

In particular, these theorists argue that the financial strains that are predicted to flow from population ageing have profound implications for generational equity and intergenerational solidarity. They paint a picture of an emerging intergenerational competition and conflict replacing a former intergenerational solidarity. They see the situation developing in which the generations compete for limited resources with this competition replacing the "generational contract" whereby there was an implicit understanding that the younger and middle-aged generations would provide for the needs of the elderly. More specifically, these theorists argue that population ageing means that the competition for limited resources will see the ending of the "generational contract" - that is, the general acceptance by the younger generation that the young and active will provide for the needs of the elderly (Bengston and Achenbaum 1993). The result of this is expected to be increasing age polarisation and age group consciousness, which may in turn lead to conflict between the generations and thus undermine social cohesion.

In the politics of arguments about generational equity, the older generation (the "greedy geezers") is frequently seen to be the guilty party that has managed to obtain an unfair share of government expenditure at the expense of younger generations. Thomson (1992) asks: "Why should the young adults of the 1990s and beyond feel bound to pay for the welfare state of their predecessors? ... Why should they not argue that there is now no contract between generations, because it has been voided by the behaviour of their elders?" (Thomson 1992: 231).

The elderly have been painted as the winners and younger people as the losers. Pressure groups such as Americans for Generational Equity complain that the retired are taking more of government funds than is their due. Preston (1984b) has pointed to the sharp increases in child poverty and the rapid decline in poverty among older people in recent decades and attributes this partly to the lobbying power and self-interest of older people: "Let's be clear that the transfers from the working-age population to the elderly are also transfers away from children" (Preston 1984a).

The conservative writer Peter Peterson has argued that: "From a society that once felt obliged to endow future generations, we have become a society that feels entitled to support from our children. Unless this mind set changes, Americans may one day find that all they really are 'entitled to' is a piece of the national debt" (Peterson 1999:11).

In summary, the demographic transition of population ageing has largely been framed in negative terms - terms in which older generations are largely regarded as a cost or a burden. Population ageing in the context of limited government resources has also been seen as undermining generational equity, and the competition between generations for government resources has been accused of leading to generational conflict, the outcome of which has been unfair and harmful for younger generations.

This portrayal of older people as a cost, and as takers, represents an unbalanced view of the contributions of older people. While the direct cost to government of providing services to older people can be calculated, this approach neglects the contributions of older people earlier in the life course (Marshall and Mueller 2002), and the ongoing contributions of older people in later life.

This paper seeks to provide more balance to the debate about the cost of older people in an ageing society and to estimate the financial value of some of the ongoing contributions of older people that are not measured in national accounts.

Others have, of course, noted the ongoing contributions of older people. In framing the National Strategy for an Ageing Australia the then Minister for Aged Care, the Honourable Bronwyn Bishop, acknowledged that: "People continue to make significant contributions as they age through a range of activities including volunteering and care giving - both of which substantially reduce the demand on Government outlays." (Healthy Ageing Taskforce 2000: 13)

Previous surveys have found that 37 per cent of volunteer work is contributed by people aged 55 years and over (ABS 2001) and that 21 per cent of principal carers of people with disabilities are aged over 65 years (ABS 1998b). In fact, older people are more likely to be givers of care than receivers of care (Healthy Ageing Taskforce 2000). Furthermore, 21 per cent of children aged less than 11 years receive some child care from grandparents, and 41 per cent of children who receive some sort of child care obtain at least some of this care from grandparents (ABS 2000a). In addition to these contributions are financial transfers from older to younger family members in the form of gifts, loans and inheritances.

However, much of the debate about ageing is still framed almost exclusively in terms of the financial cost of older people. In this context the National Strategy for an Ageing Australia recommended that researchers undertake research on the costs and benefits of an ageing population, and extend research into the volunteer/community contribution of older people.

Encouraging a balanced view

In an attempt to provide some preliminary data so that the debate about the "cost" of older people can be properly framed, this paper provides estimates of the financial value of the unpaid contributions of older people - both to their family and to the wider community. In so doing, it brings data to bear on the image of older people as takers and "greedy geezers". The paper thus encourages a more balanced view of the net costs and benefits of older people in an ageing population.

Data from the 1997 Australian Time Use Survey are used in the paper to estimate the amount and value of unpaid work of different age groups. The Australian time use data provide detailed information regarding for whom a task or activity is undertaken. This allows us to distinguish between unpaid work which is undertaken for family members in a person's own household, for family members not living in a person's own household, and for friends, neighbours and others in the community. The ability to determine accurately for whom unpaid work is undertaken is not available in most time use surveys.

The rest of this paper is structured as follows. The next section discusses the measurement and definition of unpaid work and the data used. The third section discusses the valuation method used, and the fourth section presents estimates of the value of unpaid work. The penultimate section presents information on the incidence of unpaid work, and the final section makes some concluding comments.

Measurement of unpaid work: method and data

Defining unpaid work

Determining what activities should be classified as being unpaid work is difficult and contentious. However, international statistical standards provide definitions, which can be used to define different types of unpaid work. The international statistical standard that establishes the conventional definitions is set out in *System of National Accounts 1993* (SNA93). This convention is used in this paper in defining unpaid work.

A widely accepted principle for determining the scope of total unpaid work is the "third person" or "market replacement" criterion. According to Goldschmidt-Clermont (1982: 4): "Household production consists of those unpaid activities which are carried on, by and for the members, which activities might be replaced by market goods or paid services, if circumstances such as income, market conditions and personal inclinations permit the service being delegated to someone outside the household group."

Under this criterion a household activity would be considered as unpaid work if an economic unit other than the household itself could have supplied the latter with an equivalent service. This definition is consistent with Aas's (1982) concept of committed-time activities, which are activities to which a person has committed him/herself because of previous acts or behaviours or community participation such as having children, setting up a household, or doing voluntary work. The resulting housework, care of children, shopping, or provision of help to others are committed-time activities.

In summary, unpaid work is defined in this paper as comprising unpaid household work and volunteer and community work. Unpaid household work consists of domestic work about the house, child care and shopping, and associated communication and travel.

It should be stressed that, in estimating the value of the unpaid work of older people, the paper does not pretend to measure all the financial contributions of older people. In addition to unpaid work, older people contribute to other generations through intergenerational transfers of money, gifts and through inheritances. This paper measures only the contribution of unpaid work.

The categories of unpaid household work used in this paper are outlined in Table 1. The analysis considers the amount and value of each of these categories of unpaid work by age group and gender. The age groups used are: 15-24 years; 25-44 years; 45-54 years; 55-64 years; 65-74 years; and 75 years plus. These age groups have been chosen for two main reasons. First, they approximate "life stages". Second, these age groups are provided so that relative judgements can be made about the value of the contributions of older people.

1997 Time Use Survey

The analysis in this paper is based upon the 1997 Australian Time Use Survey conducted by the Australian Bureau of Statistics (ABS). The data were collected over four periods during 1997 in order to balance seasonal influences that affect time use patterns. More than 4,550 households (8,600 individuals) were selected at random for inclusion in the survey.² The final number of respondents was 7,260.

Information about the household and each of its members aged 15 years or more was collected. A diary was then left for each person over 15 years in the household to be completed on two successive specified days. Fully completed questionnaires and diaries were obtained for 84.5 per cent of all those who were asked to respond. About 2 per cent of respondents provided only a single diary day. These individuals have been excluded from the analysis.

The survey contains a range of information on household characteristics, demographic, human capital and other person level information, and detailed information about time use for two days using a time use diary. The diary provided detailed information about every episode of time use over the two-day period. Information on seven dimensions of each episode of time use was collected: what the activity was; who it was being done for; when it began; when it ended (and by derivation how long it lasted); whether anything else was being done at the same time; where it took place; and who else was present.

Information on up to two simultaneous activities was collected. Respondents reported according to their perception of how the activities should be described.

² The survey was conducted on a multi-stage area sample of private dwellings. All people within the selected dwellings were included in the survey, subject to scope and coverage provisions. The survey covered residents of private dwellings in urban and rural areas across all states and territories of Australia. The survey excludes certain non-Australian diplomatic personnel, overseas residents in Australia, and members of non-Australian defence forces (and their dependents) stationed in Australia. Also excluded were some 175,000 people living in remote and sparsely settled parts of Australia. The exclusions of these people will have only a minor impact on any aggregate estimates that are produced.

The same activity can be coded differently depending on the purpose or context described in the diary. The secondary activity is usually the activity recorded in answer to the question: "What else were you doing at the same time?" In some cases, multiple activities are entered in the primary activities column of the diary. This requires a determination by coders as to whether they occurred at the same time or sequentially. Only one secondary activity could be coded for each episode. A more detailed discussion of the Time Use Survey can be found in ABS (1998c).

The diary collected information on activities undertaken in a two-day period. The survey was conducted so that diaries were completed on different days at different times across the year. The sampling strategy was designed to ensure a representative sample of diary days across the year. This means that *group estimates* of the amount of time spent on any activity should enable reliable annual group estimates. However, at the *individual level*, estimates of the proportion of people who engage in a particular type of activity (for example, voluntary work) can only apply to the proportion that engaged in that activity over a two-day period. Many individuals who may engage in that activity in the course of a year may not have engaged in that activity in the two days in which they completed the diary.

An unusual feature of the 1997 Australian Time Use Survey is that it contains information regarding "for whom" an activity was undertaken. This allows us to separate unpaid work and caring according to the type of person for whom the activity was undertaken. This is of particular importance when considering the unpaid work older Australians do for people outside their own home.

Table 1. Unpaid household work activities

	Definition
Food and drink preparation and clean-up	Includes the cooking and serving of meals, and washing <u>dishes</u>
Laundry, ironing and clothes care	Includes washing, ironing, mending and making <u>clothes</u>
Other housework	Includes cleaning the bathroom/toilet, vacuuming, dusting and tidying
Gardening and lawn care, cleaning grounds etc., and pet care	Includes gardening, pool care and feeding and tending to animals
Home maintenance	Includes repairs or improvements to the home, equipment, and motor vehicles and chopping wood
Household management, associated communication and travel	Includes <u>paperwork, bills, budgeting, organising, packing, selling household assets and disposing of rubbish</u>
Child care, associated communication and travel	Includes the physical, emotional and educational care of children and general interaction with, and supervision of children
Purchasing, associated communication and travel	Includes the purchasing of a wide range of goods and services for people- purchasing durables and consumer goods and purchasing repair services, administration services, child care, domestic and gardening services etc. (excludes window-shopping and purchasing personal care such as visiting the doctor or getting hair cut)
Adult personal care	Includes the physical care of adults (excludes emotional care)
Volunteer work, associated communication and travel	Includes doing favours for others and active involvement in various forms of unpaid voluntary work

Source: ABS (1998a).

The "for whom" categories used in this paper are:

- people in the respondent's household (including self, children and other household members);
- family members not living in the respondent's household; and
- friends, neighbours and other community members.³

The Time Use Survey contains weights that can be used to produce estimates relating to the whole population within the scope of the survey. The weights take account of the probability of selection and response at the level of state by region by quarter by day type. In addition, the weights were designed to give equal representation for responses from each quarter and the correct proportional representation of weekdays and weekend days. The estimates presented in this paper are all weighted.

Valuation methods

In the literature, two basic approaches to measuring unpaid work are identified: the "direct" or "output" method; and the "indirect" or "input" method. The first method involves the measurement of output by direct observation of prices and requires data on the quantities of services produced. While this method is conceptually superior because it adopts the same approach that is used to value market production, in general, the necessary data are not available. Therefore the indirect or input method has been used.

Indirect or input methods involve valuing output in terms of the cost of inputs and require information about the time spent on household work. The input approaches value household production as the sum of the values of all of its inputs which include labour inputs (time use) and the use of physical capital (the land, dwellings and equipment owned by households). However, time use surveys only provide information on time use, and so, in practice, the valuation methods do not take account of the value of the physical capital used by households in non-market production (Ironmonger 2001). It is therefore important to bear in mind that older Australians' use of physical capital when providing adult care and when volunteering will contribute to the total economy as measured by Gross Household Product (Ironmonger 1996).

There are two broad approaches to the application of the input method:

- the *market replacement cost* approach - what it would cost households in wages to hire others to do the household and caring work for them; and
- the *opportunity cost* approach - what household members would have earned in wages had they spent the same amount of time on paid work as actually spent on unpaid work.

Given that employment rates are low amongst older Australians, the opportunity cost approach to valuing their unpaid work is clearly inappropriate. Thus the market replacement cost approach is adopted. There are several variants of the market replacement cost approach, which have been developed in the literature. These include: individual function replacement cost approach; housekeeper replacement cost approach; and replacement cost hybrid approach.

³ Activities that were done for "pets" were excluded.

The individual function replacement cost approach assigns values to the time spent on unpaid work by household members according to the cost of hiring a market replacement for each individual function. It is not easy to determine an appropriate market rate of pay for household activities because commercial rates may embody a level of skill, responsibility or capital not required or reflected in household work. The application of commercial wage rates is also inappropriate where there are differences in productivity between households and the market sector due to economies of scale or the availability of expensive equipment in commercial operations. The housekeeper replacement cost approach values the time spent on unpaid household work by household members according to the cost of hiring a housekeeper to undertake the relevant tasks. The replacement cost hybrid approach uses the housekeeper wage to value unpaid household work and commercial wages to value adult care and voluntary work.

In this paper the replacement cost hybrid approach is used to value unpaid work. Unpaid household work is valued using the wage rate for "Domestic housekeepers".⁴ The value of volunteer and community work is derived using the individual function replacement cost approach, based on wage rates. The wage rates used are given in Table 2. All dollar values used in this paper are in 1997 Australian dollars.

Gross wages, rather than net wages, are used. This is consistent with the approach adopted by the Australian Bureau of Statistics and the recommendations of Eurostat (ABS 2000b). From a practical point of view, net wage statistics are generally not available on an occupational basis.

Whether the estimates based on these approaches will underestimate or overestimate the value of unpaid work depends on the relationship between the productivity of households and the market sector.⁵ Of particular significance for the estimates of the value of unpaid work by age is that the length of time taken to undertake a variety of unpaid work activities may increase with age. There are several reasons for thinking this may occur. First, declining physical and mental

Table 2. 1997 wage rates used for the valuation of unpaid work, gross amounts

Unpaid work activity	Hourly rate
<i>Household work</i> (Domestic housekeepers)	\$12.15
<i>Adult care</i> (Personal care workers and nursing assistants)	\$14.04
<i>Volunteer work</i> (Average of all unpaid occupations)	\$13.73
<i>Associated communication</i> (Secretaries and personal assistants)	\$15.99
<i>Associated travel</i> (Automobile drivers)	\$14.59

Note: Wages are gross wages and in 1997 dollars.

Source: ABS (2000b).

⁴ The tasks identified in this occupation include: preparing, cooking and serving meals and refreshments; purchasing food and household supplies; washing dishes, kitchen utensils and equipment, sweeping and washing floors and vacuuming carpets, curtains and upholstered furnishings; dusting and polishing furniture, and cleaning mirrors, bathrooms and light fixtures; and washing and ironing garments, linen and household articles. ⁵ For a discussion of this issue see Fitzgerald and Wicks (1990).

health may lead to a reduction in productivity in some older people. Second, the way in which tasks are undertaken may change. For example, shopping may become a social outing as much as being done to purchase things, which are needed. In other words, activities such as shopping may contain an increasing component of recreation.

In order to estimate effectively how productivity varies with age (or any other characteristic), measures of time and other inputs and outputs are needed. These data are not generally available in time use surveys. Generally, time use surveys measure time inputs; there are generally no measures of the resulting output.

The overlapping of activities is an important dimension of time use. A number of studies have shown that overlapping activities are neither an isolated phenomenon nor a trivial issue. The inclusion of overlapped activities can provide a more accurate estimate of an individual's economic contribution, particularly in the area of non-market production of goods and services (Apps and Rees 1996; Benefia 1996; Bittman 1996; Folbre 1997). The overlapping of activities is particularly significant for child care activities that can be combined with a wide range of household tasks such as cleaning and cooking as well as household management. Therefore primary and secondary time use are combined in this analysis.

For several reasons the estimates in this paper of the value of unpaid work by different age groups will differ from those produced by the ABS in their publication *Unpaid Work and the Australian Economy 1997*. One difference is that the ABS includes only primary time use in their estimates of the value of unpaid work. Another source of difference relates to the fact that a new activity classification system was used for the 1997 survey. The published ABS data appear to use the 1992 classification system for the 1997 estimates to allow comparisons between 1992 and 1997. The 1997 classification system is used in this paper. The main effect of this is that some activities are assigned as household work, which the published ABS estimates would have assigned as voluntary work or care (ABS 2000b).⁶

Value of time use

Total value of unpaid work

Table 3 shows the per capita annual value of unpaid work by gender and age. It also shows the total value for the entire age group. Focusing first on the per capita estimates, the value of unpaid work is higher for females than males for all age groups. Women aged 65-75 undertake work at an annual per capita value of \$24,165, and those aged 75 years and over contribute \$19,932 in unpaid work each year. Older men in these same age groups contribute a little less - \$18,349 and \$17,636 respectively. While the value of unpaid work of older women is less than among women aged 25-44 (where child care boosts the value of unpaid work to \$45,617 per annum), the value of these contributions only decreases slowly after age 45 years. Older men contribute more through their unpaid work

6 The new activity classification used in the 1997 Time Use Survey "defines activities in terms of the nature (or action) of the activity and removes additional confounding concepts of who the activity was done with or for to supplementary classifications ... The main effects on the data are that socialising and voluntary work are coded to the activity taking place (for example, eating, preparing food)" (ABS 1998a: 6).

than do most younger age groups (except those aged 25-44, where the value of contributions is a little higher).

When considered in aggregate, the value of unpaid work to the Australian economy drops away with age at a faster rate than do the per capita estimates. This is due to the relatively small proportion of the population in the older age groups. In addition, the 25-44 years age group is a 20-year age group whereas the other age groups are ten-year age groups. However, the total amount of unpaid work remains substantial. This information is shown graphically in Figures 1 and 2.

Value of unpaid work for people inside and outside of own household

When considering unpaid work, an important distinction is between unpaid work done for people living in a person's own household and unpaid work for people living outside a person's own household. Table 4 shows the average per capita value and proportion of unpaid work done for people outside their own household.

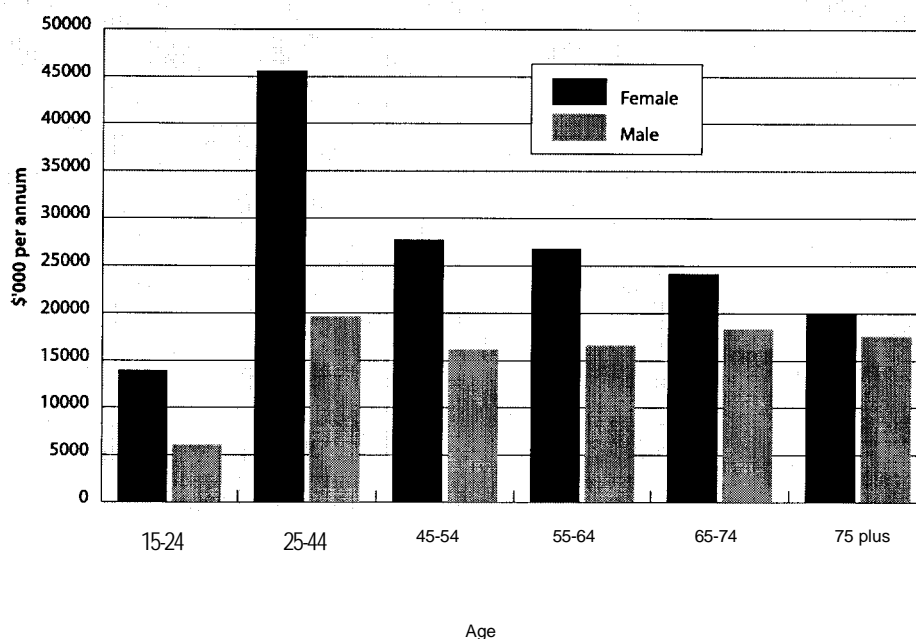
Table 3. Value of unpaid work by age and gender, Australia 1997 (1997 dollars)

Age	Female Per capita (\$ per annum)	Population (\$ millions per annum)	Per capita Male (\$ per annum)	Population (\$ millions per annum)
15-24	13,975	17,476	6,102	8,009
25-44	45,617	129,140	19,674	54,705
45-54	27,760	32,373	16,168	18,836
55-64	26,791	21,594	16,678'	14,194
65-74	24,165	16,092	18,349	10,302
75 plus	19,932	7,531	17,636	4,800
Total	31,590	224,206	15,966	110,846

Note: Population weights have been scaled, using population estimates in ABS 2000b, to take into account the exclusion of cases with only one diary day.

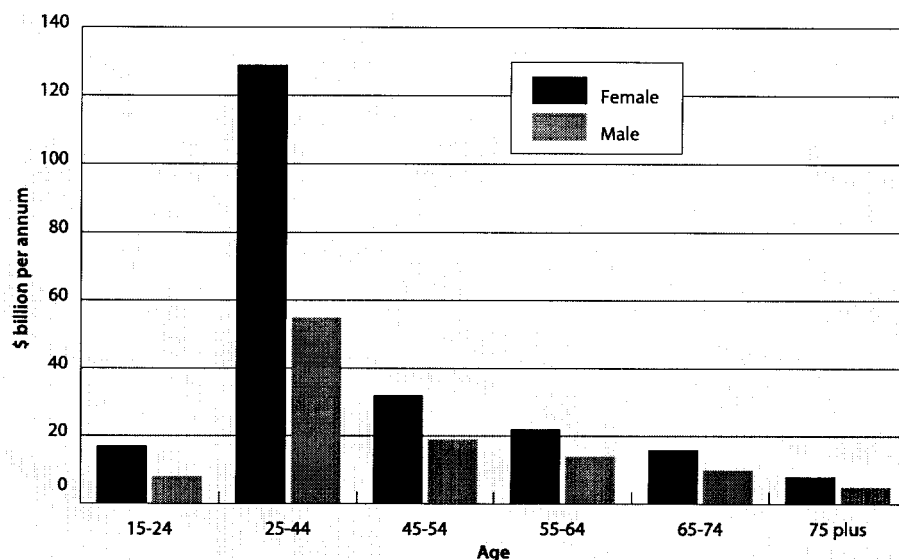
Source: Australian Time Use Survey 1997.

Figure 1. Per capita value of unpaid work by gender and age (\$'000), Australia 1997 (1997 dollars)



Source: Australian Time Use Survey 1997.

Figure Value of unpaid work by gender and age (\$ billion per annum),
Australia 1997 (1997 dollars)



Source: Australian Time Use Survey 1997.

Table 4. Per capita value of unpaid work outside and inside of own household by
gender and age, Australia 1997 (1997 dollars)

Age	Outside household		Inside household		Percentage of unpaid work provided for people outside	
	Female	Male	Female	Male	Female	Male
	per annum				Percent	
15-24	1,332	921	12,643	5,181	9.5	15.1
25-44	2,058	1,544	43,559	18,130	4.5	7.8
45-54	2,586	1,092	25,175	15,076	9.3	6.8
55-64	3,327	1,884	23,463	14,794	12.4	11.3
65-74	2,200	2,384	21,965	15,965	9.1	13.0
75 plus	1,642	814	18,290	16,822	8.2	4.6
Total	2,152	1,431	29,438	14,534	6.8	9.0

Source: Australian Time Use Survey 1997.

For both males and females the age pattern of the value of unpaid work done for people outside of their own household differs from that for total unpaid work and for unpaid work within the household. For females, unpaid work outside their own household increases with age to reach a maximum at 55-64 years (\$3,327 per annum) and for males it is highest for those aged 65-74 years (\$2,384 per annum). Unpaid work done for people outside their own household remains substantial for females aged 75 years plus (\$1,642 per annum). For males, the value of unpaid work outside their own household drops off very rapidly for those aged 75 years and over (\$814).

Table 4 also shows the proportion of unpaid work that is done for people outside of their own household. For females aged 65 years and over, the proportion of unpaid work done for people outside their own household is less than among women aged 55-64 when the proportion peaks at 12.4 per cent. The proportion

of unpaid work done by older women for people outside the household is similar to that among women aged 15-24 and those aged 25-44, and much higher than among those aged between 25-44 when within-household activities predominate. For males aged 65-74, 13 per cent of their unpaid work is contributed outside of their own household. This is the second highest proportion of all age groups. However, among males aged 75 years and over, work outside the household contributes the smallest proportion of any age group of men. This means that the share of unpaid work contributed by work outside the home peaks in the post-retirement age groups, but then falls sharply among those aged 75 and over.

Value of unpaid care: child care and adult care

This section presents estimates of the value of child care and adult care. In addition, estimates are presented of the proportion of people in each age group who actually did child care or adult care on either of the two diary days.

There are very strong gender differences in the value of unpaid child care provided (Table 5). As expected, the value of unpaid child care is the highest for those aged 25-44 years, being \$25,857 for females and \$9,790 for males. For females, the value of unpaid child care drops rapidly for older age groups but remains substantial up until the age of 65-74 years when it is \$2,111 per annum. The amount of child care provided is quite low for those aged 75 years and older (\$260 for females and \$83 for males).

The proportion undertaking any child care on the two diary days falls as age increases. This may in part reflect the fact that most older Australians providing child care will not have the children actually living with them, so they may still provide some child care, but are less likely to provide it on the two days for which they completed the time use diary.

Given the relatively small numbers providing unpaid adult care, it is necessary to collapse the age categories into two groups (15-54 years and 55 years and older) to obtain statistically reliable estimates. It is important to recognise that adult care refers only to the physical care of adults (such as helping with eating,

Table 5. Value of unpaid caring by age and gender, Australia, 1997 (1997 dollars)

Age	Female		Male	
	All	Percentage doing activity in two-day period	All	Percentage doing activity in two-day period
	\$per annum	Perc	\$per annum	Perc
<i>Childcare</i>				
15-24	4,205	19.6	638	6.6
25-44	25,857	65.5	9,790	46.7
45-54	5,003	27.5	4,609	26.0
55-64	2,926	25.8	1,542	14.3
65-74	2,111	15.8	772	11.9
75 plus	260	5.6	83	3.2
<i>Adult care</i>				
15-54	135	3.1	39	1.4
55 plus	190	4.5	91	1.7

Note: For adult care the age ranges are collapsed to 15-54 years and 55 years plus due to the relatively small cell sizes for those actually doing adult care.

Source: Australian Time Use Survey 1997.

washing, dressing and so on). People who assist another adult who is in poor health or disabled may be doing things such as cooking, shopping and cleaning for that person. These activities are not captured by the category "adult care" but are captured in the category of household work (Table 7).

A higher proportion of females than males provide adult care. For females, there is a slight increase in the proportion reporting adult care provision for the older age group. The average amount of adult care per capita is quite low, ranging from \$39 per annum for males aged 15-54 years to \$190 for females aged 55 years and older.

Value of volunteer work

For females, the value of volunteer work among those aged 65-74 is \$797 per person per annum. For women aged 75 years and over the value declines to \$670. While the value of voluntary work for these older women is less than for those aged between 45-64 years, they contribute more in voluntary work than do women aged 15-44 (Table 6). The proportion of older females who did voluntary work in the two-day diary period follows a very similar pattern, reaching a maximum of 24.8 per cent for those aged 55-64 years. For males, the maximum contribution through unpaid voluntary work occurs at age 65-74 when they contribute \$1,219 per capita per annum. The value of volunteer work of those aged 75 years and over is similar to that for those aged 45-54 years, and higher than for those aged 15-24 years.

Value of unpaid work outside of own household: family and non-family

Unpaid work for people outside their own household can be separated into that which is for family members and that for people outside the family. Table 7 shows the per capita amount of household work, child care, adult care and volunteer work by age and gender. The distinction between inside and outside household may not be an entirely accurate indicator of the usual residence of the recipient of unpaid work. For example, a grandparent may have a grandchild staying overnight temporarily and record the grandchild as an in-household family member, even though the grandchild normally lives elsewhere.

For older females and males, especially those aged 65-74 years, the amount of unpaid household work done for non-family members outside of their own

Age	of volunteer work by Female		age and gender, Australia		1997 (1997 dollars)
	All		Male		
	\$per annum	Percentage doing activity in two-day period	All	Percentage doing activity in two-day period	
		Percent	\$ per annum	Percent	
15-24	370	12.8	369	12.1	
25-44	609	17.7	659	14.2	
45-54	974	21.0	563	16.9	
55-64	938	24.8	844	23.3	
65-74	797	17.3	1,219	21.5	
75 plus	670	11.6	559"	19.2	
Total	685	17.8	652	16.2	

Source: Australian Time Use Survey 1997.

household is larger than the amount done for family members outside of their own household. For example, for females aged 65-74 years the average per capita amount of household work done for family members is \$389 dollars as compared with an average of \$680 for non-family members. For males aged 65-74 years, an average of \$435 worth of household work was provided for family members outside of the provider's own household, and \$629 was undertaken for non-family members outside the member's own household.

While this pattern of providing more assistance for non-family members outside of the provider's own household is consistent with the pattern for younger age groups, it represents a contrast to the pattern among those aged 55-64 where

Table 7. Household work done for family and non-family members, Australia, 1997				
	Female		Male	
	Family outside household	Non-family outside own household	Family outside own household	Non-family outside own household
Age		\$		
0-4				
5-14				
15-24				
25-34				
35-44				
45-54				
55-64				
65-74				
75+				
Childcare				
Adult care				
Volunteer work				
Total unpaid work				

Note: Household work is defined to include food and drink preparation and clean-up, laundry, ironing and clothes care, other housework, gardening and lawn care, cleaning grounds and pet care, home maintenance, household management and purchasing.
Source: Australian Time Use Survey 1997.

more work is undertaken for family members outside the household than for non-family members beyond the household. The greater proportion of work for family members outside the household probably reflects that period of life when caring for elderly parents peaks.

For both females and males the amount of unpaid housework done for family members increases relative to the amount for non-family members as age increases. For both females and males, the amount done for family members outside of the household peaks and becomes more substantial than the amount done for non-family members. For females, after the age of 65, the amount of unpaid household work performed for family members outside of the provider's own household falls dramatically from \$901 for those aged 55-64 years to \$389 for those aged 65-74 years. The amount of unpaid household work undertaken by males for non-household family members drops away dramatically for the 75-year plus age group. The amount of unpaid household work for non-family peaks at age 65-74 years and then also drops away for the group aged 75-years and over.

The age pattern for child care is quite similar, with the maximum value of unpaid out of household child care being undertaken by males and females aged 55-64 years. Interestingly, the mix between family and non-family child care for children living elsewhere changes dramatically with age. For older age groups, almost all of the unpaid outside household child care is done for family members, whereas for the younger age groups a much higher share of the outside child care is done for people other than family members. Among those aged 25-44, the high level of child care provided for non-family members outside the household probably reflects arrangements where friends baby-sit for friends on a mutual basis.

While there is no direct evidence on why the amount of unpaid household work and child care done outside of the household is greatest for those aged 55-64 years, it probably reflects the so-called "sandwich generation" which has both grandchildren and elderly parents to care for and hence have heavy demands from both the younger and older generations in their family. The pattern may also in part reflect early retirement.

Regarding the gender and age pattern for volunteer work, the majority of volunteer work is done for non-family members, particularly among males. This is not surprising given the definition of voluntary work, which excludes housework, and other domestic based work.

Among older Australians, perhaps the major caring contribution is for a sick or disabled partner. This potentially reduces the need for government expenditure, although this must be offset against the fact that there are other provisions in the income support system that provide financial support to carers.⁷ There has also been a major expansion of home and community care services which has meant that the majority of older people requiring government funded care services now have access to those services in their own homes rather than in residential care. Currently, 12 per cent of people aged 70 and older receive

⁷ For example, assistance is available with the costs of caring through a Carer Allowance, and carers may be eligible for income support through a Carer Payment.

government funded care services in the community, compared with 4 per cent in nursing home care, and 3 per cent in lower level residential care (OECD 2000: 66).

While the Time Use Survey does contain information on the extent to which people in the household have a disability, the numbers are quite small and therefore it is not possible to use the Time Use Survey to examine the impact of having a disabled spouse on the amount of adult care provided by age group. Soupourmas and Ironmonger (2002) have found that the amount of adult support provided in Victoria increased by 25 per cent between 1992 and 1997.

Incidence of unpaid work

Further analysis of unpaid work was conducted by focusing on the proportion who reported doing any unpaid work in the two diary days. An advantage of this shift in focus is that it provides a direct measure of *incidence* of unpaid work, albeit one that does not capture the *amount* of unpaid work done.

Table 8 shows the proportion of respondents who did unpaid work within their own household and for people outside their own household in the two diary days. Because the estimates are based on time use for only two days, they are estimates of the percentage undertaking the activity for an "average two days". The percentage undertaking the activity over a longer period of time (such as a year) will be larger. Nevertheless, the *pattern* of results over two days should be similar to that over the year.

Thus, age-related differences in unpaid work observed over two days will be similar to the annual age-related patterns. The main point to be taken from Table 8 is that the percentage reporting doing unpaid work for people outside their household falls after the age of 64 for females but only after the age of 74 for males. In fact, for males, the age group 55-64 years is the most likely to report doing unpaid work for people outside of their own household (37.4 per cent).

	Age in years						Total
	15-24	25-44	45-54	55-64	65-74	75 plus	
	Percent						
Female							
Own household	95.5	99.2	99.5	98.4	99.4	96.2	98.3
Outside own household	41.2	51.1	52.1	51.8	41.7	31.6	47.7
Family outside own household	10.8	13.9	19.0	27.2	18.5	14.4	16.2
Non-family outside own household	34.9	44.1	41.8	34.8	32.0	20.9	38.7
Male							
Own household	84.3	93.1	93.9	96.0	99.2	99.2	92.7
Outside own household	28.7	32.7	30.8	37.4	34.9	28.2	32.2
Family outside own household	3.8	8.0	9.2	12.9	12.9	7.8	8.4
Non-family outside own household	26.0	28.0	23.7	28.7	28.1	22.0	26.7

Note: The sum of the percentage doing unpaid work for "family members outside own household" and "non-family outside household" is greater than the percentage doing unpaid work for "people outside own household" given that an individual can do unpaid work for both family and non-family who do not live in their household.

Source: Australian Time Use Survey 1997.

Across all age groups, females are more likely than males to report doing unpaid work for people living outside their own household. The difference is largest for those aged 25-44 years and 45-54 years, where 51.1 and 52.1 per cent of females respectively reported doing unpaid work for people living outside of their own household. The proportion of males aged 25-44 and 45-54 reporting doing unpaid work for people outside of their own household was substantially lower at 32.7 and 30.8 per cent respectively.

In order to explore the characteristics of those who undertake unpaid work outside of their household figures are presented on the percentage undertaking various categories of unpaid work for different education levels (Table 9). Among the older age groups there are strong educational effects, with those having a higher level of educational attainment being much more likely than those with lower education levels to have done unpaid work for people outside their own household. The differences between education groups are also particularly pronounced for the younger age group. For volunteer work there is a similar pattern. There are few differences between education groups in the likelihood of undertaking child care or adult care.

While there is a stronger relationship between level of education and doing unpaid work for people outside of their own household among older people, the relationship is apparent for all age groups. It is unclear why there is such a

Table 9. Incidence of unpaid work by educational attainment and age over average two days, Australia 1997

	Age in years					Total
	15-24	25-44	45-54	55-64	65 plus	
	Percent					
<i>Outside own household</i>						
Degree	52.3	46.6	50.2	57.0	60.8	51.4
Diploma	37.6	45.8	52.9	41.1	46.9	45.1
Vocational	47.8	38.6	42.3	40.5	33.9	40.5
Year 12	36.5	44.1	35.9	41.1	42.5	40.8
Year 11 or less	27.0	38.9	34.4	44.2	31.4	35.6
Still at school	25.4	na	na	na	na	25.4
<i>Volunteer</i>						
Degree	23.9	16.9	29.9	26.4	39.8	24.5
Diploma	11.0	14.2	19.9	24.2	28.9	17.7
Vocational	11.5	12.7	16.3	25.9	14.8	14.9
Year 12	14.3	17.8	14.5	23.0	24.8	18.2
Year 11 or less	13.2	18.2	17.6	23.1	14.1	17.2
Still at school	7.4	na	na	na	na	7.4
<i>Child care</i>						
Degree	4.5	50.8	39.3	21.9	9.4	31.5
Diploma	11.9	58.5	29.8	19.2	8.9	34.0
Vocational	7.5	56.4	21.7	18.2	11.2	31.2
Year 12	8.5	55.0	24.4	12.2	14.2	30.9
Year 11 or less	23.1	58.7	25.8	21.4	10.4	35.9
Still at school	17.8	na	na	na	na	17.8
<i>Adult care</i>						
Degree	1.7	2.2	5.3	4.9	2.7	3.0
Diploma	1.4	2.4	6.4	2.3	1.2	2.7
Vocational	1.1	1.7	3.7	1.7	2.4	2.0
Year 12	1.0	1.1	2.1	3.8	3.8	1.9
Year 11 or less	0.0	3.2	3.2	4.7	2.9	2.8
Still at school	1.1	na	na	na	na	1.1

Notes: na signifies that there were no respondents in this age group who were still at school. A small number of respondents with an 'other post-secondary qualification' are excluded. The category 'outside own household' includes all unpaid work.

Source: Australian Time Use Survey 1997.

strong educational effect for older groups. A possible reason is that older people with a higher level of educational attainment have, on average, better health than older people with lower levels of educational attainment (Wilkinson 1996; Wilkinson and Marmot 1998). An alternative explanation is that doing unpaid work for people outside of the provider's own household requires access to economic resources. Older Australians with higher levels of education will have, on average, higher levels of income and assets. Access to resources may be particularly important in allowing access to transport.

Recognising the potential benefits of an ageing society

As the proportion of the Australian population aged 65 or older increases, government expenditures are expected to rise as a result of direct financial costs to governments. These increased expenditures will flow from increased demands for income support and increases in health costs associated with an older population.

A focus on these financial costs has led to an unduly negative, problem-oriented view of population ageing that neglects the contribution of older citizens to the social and economic wellbeing of the nation. The fact that many of those aged 55 and older, and most people aged 65 and older, are no longer in the paid workforce has reinforced the negative view that older people are a burden rather than an asset. This undervaluing of the contribution of older people has direct parallels to the undervaluing of the unpaid contributions of women who leave the workforce to raise children, or who raise children while continuing to work.

This paper has explored just one aspect of the financial contribution made by older people and has demonstrated that, as an age cohort, older people make valuable financial contributions to Australian society through the time they spend in unpaid caring in their own household, to their family members in other households, and to non-family members in the wider community. In addition to these caring contributions, further contributions are made by older people in the form of unpaid voluntary work and through the use of physical capital (for example, home, cars and other resources) as they undertake their unpaid contributions.

This paper has shown that, based on time use data, men and women aged over 65 contribute almost \$39 billion per year in unpaid work. If the unpaid contribution of people aged 55-64 is included, this contribution rises to \$74.5 billion per annum. This compares with a total GDP for Australia in 1997 of around \$550 billion. At the individual level, older people's unpaid work is valued at between \$20,000 to \$27,000 for older women and from just under \$17,000 to just over \$18,000 for older men. The bulk of this unpaid work is performed within the person's own home but older women undertake between \$1,600 and \$3,300 worth of unpaid work outside the home, and older men undertake between \$800 and \$2,400 worth of "external" unpaid work each year, depending on which age group of older people is considered.

Were it not for the unpaid work of older people at least some of the costs of providing care and the functions undertaken by volunteers would have to be borne in one way or another by government. It is therefore important when considering the direct financial costs of an ageing population that the unpaid work of this older section of the population is taken into account. In other

words, instead of focusing only on the costs of an older population, it is important to take into account the positive contributions and savings generated by the unpaid work of older people. As the size of this population increases, the total value of these contributions will increase.

Unpaid work patterns in later life are gendered. Older women contribute more than older men on both a per capita and aggregate level. For example, of people aged 65-74, women contribute \$24,165 per annum compared with men who contribute \$18,349. At a national level, women of this age contribute more than \$16 billion per year while men contribute \$10.3 billion. This discrepancy between the value of the national contribution of older men and women is due to both the lower per capita contribution of older men and the fact that there are fewer older men than older women.

Among women aged 65-74, a greater share of their unpaid work is undertaken within their household than is the case for similarly aged men (90.9 per cent compared with 87 per cent). For the men and women aged 75 and older this pattern reverses. When older women undertake unpaid work outside the home they are more likely than men to be working for family members who live outside their own household by providing child care, household work or adult care. In contrast, older men tend to make their outside-the-home contributions through voluntary work.

All age groups undertake a much greater proportion of their unpaid work within their own household than outside their household. Of unpaid work undertaken for people outside the person's own home, most child care and adult care is undertaken for family members. However, work for people outside the person's own household is by no means confined to helping family members. As far as household work beyond their own household is concerned, older men and women spend more time doing household tasks for non-family members than for family members. Volunteer work is predominantly for non-family members.

In addition to the financial value of the unpaid work of older people it is also important to recognise the social importance of these activities. The unpaid labour of people can act as a social "glue" that helps bind society together. Much of the unpaid work of older people provides support that would be difficult to provide using market-based services. The sense that someone cares, the flexibility of the support provided by many unpaid workers, and feeling that people are not doing things merely for financial gain, can all provide something additional to the simple financial contribution of the unpaid work.

While an ageing population may require some increased expenditure on the older age cohorts, this should not be viewed simply as a one-way public transfer of funds to older people. The public expenditure of funds must be balanced against the private transfers from older people to other family members and the wider community through their unpaid work. While some theorists and activists have argued that the public transfer of funds towards older generations is a threat to intergenerational solidarity, the concerns of these theorists and commentators neglect the impact of the private transfers of older people to younger generations (via intra-family transfers), and through their contribution to the wider community.

Nor should the expenditure on income support and health for older people be regarded as an expenditure that pays no dividends. Such public expenditures can enable older people themselves to yield an investment return that favours

younger family members and the wider community through their unpaid work and other transfers of goods, gifts, cash and inheritance. Were it not for the support older people receive from the public sector they would be in a weaker position to give something back. It can be argued that the public support provided to older people strengthens the bonds between generations. To reduce this support could jeopardise the ability (and possibly willingness) of older people to make the transfers to their families and the wider community. It is possible that reducing expenditure on the elderly in the name of generational equity and generational solidarity could have the effect of undermining the equity and solidarity that is currently generated by the private transfers from older people (Attias-Donfut and Arber 2000).

While the value of unpaid work of older people overall is substantial, some contribute much more in this way than others. Of women aged 65-74 years, 58 per cent undertook no unpaid work outside their own household on the two diary days, and 68 per cent of those aged 75 years and over did no unpaid work outside the home on the two diary days. The comparable figures for older men are 65 per cent and 72 per cent respectively.

While there are many reasons why some older people undertake considerable outside unpaid work while others do little, one challenge for research is to learn why there are such wide variations - why some contribute a lot while others contribute little. A challenge for policy is to identify ways of encouraging contributions from a wider range of older people and to remove barriers to their contributions. By so doing we can realise more of the potential benefits of an ageing society, enable more older people to participate in a society characterised by active and positive ageing and further enhance inter-generational solidarity and generational equity.

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