Ageing and child care

Governments provide financial support to parents for the use of child care services, fund the provision of these services as well as undertake other types of activity in relation to child care. Children aged up to 12 years are the main beneficiaries of government expenditures on child care. Population ageing could thus be expected to reduce pressure on future child care expenditures.

This technical paper follows up the work done in the Commission's Ageing Study (PC 2005), which did not analyse in detail the impacts of demographic changes on child care expenditure by government. It examines the factors that are likely to influence future child care spending, focussing on the likely impact of population ageing on aggregate expenditure over the next 40 years.

The assessment of the impacts of ageing are based on projections to 2044-45. The projections are intended to be a guide to what would happen under existing government policies and if people's behaviour continues in much the same way as recently. But they are not forecasts in the sense that they are expected to occur.

The Department of Family and Community Services (FaCS), responsible for the bulk of total expenditure on child care, was provided with an opportunity to comment on an early draft. Its comments have been incorporated (although the Department is not implicated in the findings). As no input was sought from State and Territory government agencies responsible for preschool and child care services, projections of the impacts on State and Territory expenditure should be viewed as preliminary only.

14.1 The nature of child care

According to the ABS 2002 Child Care Survey (2003, p. 2), child care refers to arrangements (other than parental care) made for the care of children under 12 years of age. It may be formal or informal. Parents often use a combination of formal and informal child care.

- Formal child care refers to regulated care that takes place away from the child's home, for example, preschools, centre-based long day care, family day care, occasional care and outside school hours care.
- Informal care refers to non-regulated care that takes place in the child's home or elsewhere. It includes care by family members, friends, paid babysitters and nannies.

Although preschools fall within the ABS definition of child care, there is a traditional view that they are inherently different. Preschools are seen as involving the provision of early childhood education with qualified teachers, whereas child care is viewed as providing for the care of children of working parents.

However, the two are increasingly seen as the same. As McDonald (2002, p. 197) said:

> While the distinction between education and care continues to be fiercely defended at the school level by teachers, in early childhood, there is an increasing tendency to look upon the two as part of the same package. However, this is a relatively recent development.

Indeed, convergence is apparent in a number of ways. Child care centres and preschools frequently provide overlapping services and, in some cases, cooperate with each other. Some State and Territory governments provide financial support for preschool programs provided in child care centres. Also, as McDonald (2002, p. 197) noted:

> … the new generation of early childhood educators has not been as precious as teachers have been about being seen as child-carers. Tertiary institutions today produce graduates who see themselves as early childhood educators and carers. Caring for children is part of their education and part of their philosophy.

Because of the increasingly close nexus between child care and preschools, this technical paper projects government expenditures on both.

14.2 Government expenditure on child care and preschools

The Australian Government and State and Territory governments have different, but complementary roles in respect of child care and preschool services. The Australian Government seeks primarily to help families 'participate in the economic and social life of the community' through the provision of child care services and financial support (FaCS 2005a, p. 112). A historical overview of Australian Government child care support is given in box 14.1. The main focus of State and Territory

involvement is to provide education and developmental opportunities for children, including preschools (SCRGSP 2006, vol. 2, p. 14.4).

Total government expenditure on child care and preschools in 2004-05 was around $2.3 billion (table 14.1) or around 0.3 per cent of GDP in that year. The Australian Government accounted for under three-quarters of total expenditure on child care and preschools and around 95 per cent of expenditure on child care. State and Territory governments accounted for all government expenditure on preschools.

Australian Government expenditure consists primarily of the four following items (table 14.1).

- *Child care benefit*. This is the main expenditure item. The child care benefit reduces the child care fees of families using approved child care or registered carers. Families can have the benefit paid directly to the child care service provider to reduce their ongoing fees, or can receive the benefit as a lump sum payment through the tax system after the end of the financial year. The maximum rate of the benefit is adjusted on 1 July each year with the CPI.
- *Child care support program* (including special purpose payments). Major changes were introduced to this program in 2004 (previously it was called the child care support broadband program) including greater clarification of objectives and principles of the program, simplification of funding arrangements and a greater emphasis on the quality of care. The program seeks to: promote, support and enhance quality child care; improve access to child care for children and families with special or additional needs; and support access to child care in areas and/or circumstances where services would not otherwise be available. Payments are made directly to providers and to the States and Territories.
- *Child care tax rebate.* The Government introduced a non-means tested tax offset of 30 per cent of out-of-pocket child care costs with effect from 1 January 2005 (the date of effect was brought forward from 1 January 2006). It would be available to tax payers who receive the child care benefit for approved care and meet the child care benefit work, training and study test. Out-of-pocket costs are total child care fees less child care benefit. The rebate is subject to a cap. For 2004-05, a maximum of $4000 per child is payable. The cap will be indexed in line with CPI. The tax rebate can only be claimed a year after the fees are paid (ATO 2005a). Although this item is expected to cost the Government around $1 billion over five years from 2004-05 (Australian Government 2005a, b), it is expected that nothing will in fact be paid until 2006-07.

Box 14.1 **A history of Australian Government child care support**

The Australian Government first became substantially involved in funding child care with the passage in 1972 of the Child Care Act. The Act enabled the Government to provide funding (through capital, recurrent and research grants) to community-managed non-profit organisations to establish and maintain long day care centres for children of working and sick parents.

A marked change in the philosophical underpinning of the funding of child care occurred in 1974 when the Government decided that child care support should go to all children and not just to children from families that were poor or needy. Also, during the mid-1970s, funding was increasingly provided to other forms of child care including family day care and outside school hours care. From the mid-1970s to the early 1980s, the main expansion in child care places was the provision of family day care.

In 1984, standardised fee relief for children in non-profit centre-based long day care, called child care assistance, was introduced and became the main means by which the Government supported child care. Over time, child care assistance expanded. For example, in 1990, fee relief was extended to commercial child care centres. Child care assistance was an income-tested subsidy directed at low and middle income earners. The subsidy was paid to the child care centre and passed on to the family by way of a reduction in fees.

The child care cash rebate was introduced on 1 July 1994. It was largely a non-means tested payment over and above child care assistance. The payment was paid through Medicare offices on receipt of claims for child care expenses. Parents were able to claim up to 30 per cent of child care costs up to a ceiling level.

The next major change occurred in July 2000 with the introduction of the child care benefit. This benefit replaced both the child care assistance and the child care cash rebate. It allowed for varying levels of benefit depending on family income and the number of children in care.

In 2004, the Government proposed a 30 per cent child care rebate on out-of-pocket child care expenses for approved care. Families can start to claim the rebate in their income tax returns for 2005-06. The rebate can only be claimed from work-related child care from 1 July 2004 and is subject to an indexed cap ($4000 per child in 2004-05).

In the 2005-06 Budget, the Government committed $266 million to significantly increase the number of child care places. This expenditure is to help parents in the transition from welfare to work arising from changes to the parenting payment and the disability support pension which are to start from 1 July 2006. Those seeking the parenting payment after 1 July 2006 would be expected to look for at least part-time work of at least 15 hours a week when their youngest child turns eight and is ready for school. A person with a disability who is capable of working 15 hours or more a week within a two year period at award wages would no longer receive the disability support payment (but could be entitled to receive the Newstart Allowance or Youth Allowance).

Sources: ABC News Online, 'Welfare-to-work rules to be eased', 7 November 2005, http://abc.net.au; ATO (2005a, b); Australian Government (2005b); Andrews (2005a, 2005b); Costello (2005); Department of the Parliamentary Library (2003, 2002, 2000).

Table 14.1 **Government expenditure on child care and preschools**[a]

Expenditure item	*2004-05*
	$'000
Australian Government	
Child care	
Child care benefit	1 462 670
Child care support	223 003
Child care tax rebate[b]	–
Child care for eligible parents undergoing training	17 215
Preschools[c]	–
Total[d]	1 702 888
States and Territories	
Child care	89 513
Preschools	503 247
Total[d]	600 304
Total[d]	2 303 192

A 2004-05 prices. **b** The tax rebate is not expected to affect the Australian Government budget until 2006-07. **c** The Australian Government provides supplementary funding to support the participation of Indigenous children in preschool programs. In 2003, an estimated $11.2 million was provided. **d** May not add due to rounding. – denotes nil or rounded to zero.

Sources: Australian Government (2005c, pp. 173–4); Centrelink (personal communication); FaCS (2005a, p. 115); SCRGSP (2006, Attachment 14 A).

- *Child care for eligible parents undergoing training.* This expenditure item helps people who receive certain Centrelink payments to improve their employment prospects by participating in study, work or job search activities. Parents can get help finding child care, and may also obtain assistance with paying child care fees. Creches established under the program provide child care for vulnerable groups of parents in areas where no other suitable child care services are available. The program is about to undergo significant change.

State and Territory expenditure covers such items as: providing preschool services; providing operational and capital funding to non-government service providers; licensing and setting standards for child care service providers; providing information and advice to parents; and providing dispute resolution and complaints management processes (SCRGSP 2006, vol. 2, p. 14.4).

14.3 Method for projecting government expenditure

The method used to project government expenditure on child care and preschools is similar to that used generally for other social expenditure areas in the Ageing Study (box 14.2).

Box 14.2 **Basic projection method**

The basic method for projecting child care (and preschool) expenditure consists of the following steps.

1. Coverage rates (C) and expenditure per child in child care or average cost (AC) for each age group are estimated for 2004–05 (or the most recent data available).
2. Coverage rates in future years are estimated by applying a compounding growth rate formula to the base year estimate.
3. Average cost in future years is estimated by applying a compounding growth rate formula to the 2004–05 estimate of average cost to incorporate growth in real costs.
4. The number of children in child care (N) for each age group in any future year is projected by multiplying coverage rates (C) by the Commission's population projections (Pop).
5. Expenditure on child care (E) for each age group and in any future year is estimated by multiplying the projected number of children in child care by projected average cost (AC).
6. Total expenditure for any future year is the sum of expenditure for each age group.

To facilitate comparison with the projections in the Ageing Study, the base year of 2002-03 is applied.

The effects of ageing are found by subtracting an age-adjusted projection from the base case projection (described above). The aged-adjusted projection is based on a simulated population projection, which retains the 2002-03 age structure for all years.

The level of government expenditure on child care and preschool expenditure in the future can be estimated from changes in:

- the number of children in different age groups in the population;
- the proportion of children in the population in child care or preschools by age group (coverage rate); and
- the cost of child care or preschools per child by age group (average cost).

The remainder of this section specifies the data and assumptions applying to each of these factors.

Although the most recent financial year data are used to estimate these factors, to facilitate comparison with the projections in the Ageing Study, the base year of 2002-03 is used.

The number of children

Of relevance to future expenditure on child care and preschools is the expected number of children in the population, in particular, children aged 0 to 12. According to the Commission's (PC-M) population projections, the share of 0 to 12 year olds is expected to fall by 20 per cent, from 17 per cent of the population in 2002-03 to 14 per cent in 2044-45. The share of 4 year olds, which is the main age group attending preschools, is expected to fall by 19 per cent, from 1.3 per cent of the population in 2002-03 to 1.1 per cent in 2044-45. This suggests that ageing should relieve pressure on future child care and preschool expenditures.

Participation in child care and preschools

Growth rate assumptions for child care coverage rates

Frequent changes in Australian Government policy on child care (box 14.1) make it difficult to use historical trends in child care coverage rates for expenditure projections. An issue therefore is what would be an appropriate proxy for estimating growth in coverage rates.

There are a number of possible growth rate measures which could operate as a proxy. As the Australian Institute of Health and Welfare has noted (AIHW 2005, p. 85) trends in the use or demand for child care is affected by trends in a range of social factors such as family structure (for example, the growing number of one parent families), employment patterns (for example, increases in the labour force participation of both couple and single parents) and population mobility (for example, moving can weaken networks of families and friends who provide most informal care). What follows is a review of what are considered in this technical paper to be the most relevant proxies for trends in coverage rates. (The growth rate assumed for preschool coverage rates is discussed later in relation to State and Territory programs).

Labour force participation of mothers

There are links between the labour force participation of parents, particularly of mothers, and child care. (The labour force participation rate is the proportion of the population who are in work or actively looking for work.)

Parental labour force participation (or labour supply) is influenced by the relative price of work and leisure — thus including after tax wages and net child care costs — as well as household income, changing cultural norms and a host of other

factors. The impact of changes in the costs of formal child care depends on the resolution of their income and substitution effects. A fall in child care costs increases the overall net income from working an existing number of hours, prompting households to work less (the income effect). It also increases the hourly return from work, net of child care costs, leading households to work more (the substitution effect). In most cases, the substitution effect dominates. However, the story is complicated by the fact that child care is subsidised by governments, with thresholds for full eligibility for benefits. This means that some households may face relatively steep effective marginal tax rates associated with working extra hours, because this would entail withdrawal of full child care benefits, prompting labour supply responses. Box 14.3 reviews some recent Australian studies on the extent to which parental labour force participation is affected by child care costs.

Child care demand in turn is affected by parental labour supply (for example, hours of work) as well as other factors such as child care fees, household income, and household characteristics (for example, number of children, age of youngest child, proximity to relatives which is relevant to informal child care demand, two or lone parent households, and age of parents). Box 14.3 reports an Australian study by Doiron and Kalb (2004) on the extent to which child care demand is affected by the labour supply of parents.

Box 14.3 **Recent Australian studies on the link between child care and labour force participation of parents**

Impact of child care costs on labour supply

Although recent Australian studies have identified a negative relationship between child care costs (or prices) and labour supply of mothers, they have been ambiguous on the significance of the relationship.

Toohey (2005) found that the child care benefit reduced the costs of child care for all women with the extent of reductions most apparent for women with lower incomes and more children. However, he found that mothers with two or more children were often worse off when working full-time then part-time. He concluded that the combination of increasing child care costs and a reduction in other forms of assistance to families with children acted as a strong deterrent to full time work for mothers with several young children. Toohey took a similar approach to that of Schofield and Polette (1998) who found that child care subsidies had a large impact on the net benefit to families where mothers of preschool-aged children worked fulltime.

(Continued next page)

Box 14.3 **(continued)**

Doiron and Kalb (2004) using data from the ABS Child Care Survey, the Survey of Income and Housing Costs and the Australian Government Census of Child Care Services found negative but generally modest impacts of the price and net costs of child care on the participation rate and expected hours worked of lone parents and mothers. They found that the impacts were larger for lone parents than for mothers. For example, for lone parents, the elasticities of expected hours worked with respect to price was -0.05 (for example, a ten per cent increase in price was associated with a 0.5 per cent decrease in expected hours worked) and with respect to net cost -0.15. For mothers, the relevant elasticities were -0.02 and -0.03, respectively. The impacts on fathers in two parent households were negligible. For certain sub-groups, however, Dorion and Kalb estimated substantially larger labour supply responses. For example, for lone parents with preschool-school aged children, the elasticities of expected hours worked with respect to price was - 0.18 and with respect to net cost -0.28. For mothers in two parent households with preschool-aged children, the relevant elasticities were - 0.05 and -0.07 per cent, respectively. For women earning less than the median wage and with preschool-aged children, the elasticities were respectively -0.04 and -0.06.

Rammohan and Whelan (2004) using data from HILDA found that for married mothers, the cost of child care was relatively unimportant in both the decision to work, and given the decision to work, the number of hours worked. Even where statistically significant, they considered the impact of child care costs to be small. For example, in respect of the labour participation decision, $1 increase in the hourly price of child care is associated with a 2 per cent decrease in the probability of the woman working. This corresponded to an elasticity of around -0.12. For those that work, a $1 per hour increase in the cost of child care reduces hours worked by between 0.60 and 0.80 hours.

Cobb-Clarke et al (1999), using data from the Negotiating the Life Course Survey reported that child care costs may not be as large a barrier to employment as they were often perceived to be. Non-employed mothers with young children did not cite child care costs as the primary thing that prevents them from entering paid employment. Furthermore, many two-earner families were able to adjust their work schedules to avoid using any non-parental care at all.

Impact of labour supply on child care demand

Doiron and Kalb (2004) found that parents' employment generally increases use of both formal and informal child care, but the effects are stronger for mothers in two parent households, for formal care, and for lone parent households. For example, for working mothers in two parent households, the elasticities of demand for child care with respect to expected hours worked were 0.36 for formal care (that is a 1 per cent increase in hours worked increases the hours of formal care by 0.36 per cent) and 0.23 for informal care. For lone mothers, the relevant elasticities are 0.91 for formal care and 0.21 for informal care. For fathers in two parent households, the elasticities of demand for child care with respect to expected hours work were -0.95 for formal care and 0.1 for informal care.

Three sources of Australian data, although not directly comparable, confirm a link between the labour force participation of parents and child care — the ABS Child Care Survey, the Australian Government Census of Child Care Services and the HILDA (Household Income and Labour Dynamics in Australia) dataset.[1]

According to the ABS 2002 Child Care Survey, an average of around 50 per cent of children in formal or informal care were there because of their parents' work (table 14.2). This reason accounted for 84 per cent of children in before and after school care, 60 per cent of children in family day care, 55 per cent of children in long day care and 47 per cent of children in informal care. In contrast, the most common reason for children attending preschool, occasional care centres and other formal care was that it was beneficial for the child.

Table 14.2 **Reasons for using care, ABS Child Care Survey, 2002**
Per cent of children in care

Type of care	*Work-related*[a]	*Personal*[b]	*Beneficial for child*[c]	*Other*[d]	*Total*
Before and after school care	83.7	9.6	3.7	2.9	100.0
Long day care	55.0	15.2	27.5	2.3	100.0
Family day care	60.3	20.0	18.8	0.9	100.0
Occasional care	29.8	29.8	37.5	3.0	100.0
Preschool	16.7	4.5	73.5	5.4	100.0
Other formal care	7.7	37.6	39.3	14.5	100.0
Total formal[e]	**48.1**	**12.3**	**36.3**	**3.3**	**100.0**
Total informal	**46.3**	**37.6**	**3.0**	**13.0**	**100.0**

[a] Reasons include working, looking for work and studying/training for work. [b] Reasons include study or training not related to work, shopping, entertainment, social or sporting activities, giving parents a break./time alone, caring for relatives, visiting the doctor, or undertaking voluntary/community activities. [c] Includes good for child and preparation for school. [d] Includes reasons unknown. [e] Components do not add to this total as children could be using more than one type of care.

Source: ABS (2003, *Child Care, Australia,* Cat. No. 4402.0, tables 8 and 9).

The ABS Child Care Survey also shows that, within couple and one parent families, use of formal and informal care was higher for children with employed parents (table 14.3). Within couple families, 59 per cent of children from couple families used care if both parents were employed compared with 35 per cent of children with

[1] The ABS Child Care Survey collects information from parents on the use of child care by children aged 0 to 11 years, with child care including all formal child care services and preschools as well as informal care. The Australian Government census collects information from Australian Government funded child care service providers, with children using these formal services generally being 0 to 12 years. The HILDA survey is a household-based panel study which began in 2001 containing broad information about economic and subjective well-being. Child care variables in the survey relate to children living in the household aged under 15 years of age and provide a measure of the particular type of child care used, the hours of each care type used, and the total cost of child care across all care types.

one parent employed and 28 per cent of children who had neither parent employed. Similarly, 74 per cent of children of employed sole parents used care compared with 44 per cent of children of sole parents who were not employed.

Like the ABS Child Care Survey, data from the Australian Government Census of Child Care Services and HILDA (tables 14.4 and 14.5) suggest that the majority of children in most types of care were in care for work-related reasons. For example, the Australian Government Census of Child Care Services data show that at least 70 per cent of children in child care (other than in occasional care) have parents that are working, studying or training for work, or seeking employment. The HILDA data show that around 70 per cent of households using child care, do so for employment purposes.

Clearly, the labour force participation of parents is not the only indicator of the level of demand for child care. As table 14.2 shows, many parents use child care for reasons other than employment. However, apart from occasional care and preschools, it is clear that these reasons are not as significant an explanation for child care demand as is employment status.

Table 14.3 **Labour force status of parents, ABS Child Care Survey, 2002**
Per cent of all children

Whether children in care or not	*Couple family*				*One parent family*			*Total*
	Both parents employed	*One parent employed*	*Neither parent employed*	*Total*	*Parent employed*	*Parent not employed*	*Total*	
In care								
Formal care	17.1	15.2	14.1	16.1	16.9	13.3	14.8	15.8
Informal care	28.9	15.6	10.8	22.0	36.1	23.9	28.8	23.3
Formal and informal care	13.4	4.2	2.9	8.9	20.9	6.8	12.5	9.6
Total	59.3	35.0	27.9	47.0	73.9	44.0	56.0	48.7
Not in care	40.7	65.0	72.1	53.0	26.1	56.0	44.0	51.3
All children	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: ABS (2003, *Child Care, Australia,* Cat. No. 4402.0, table 22).

Table 14.4 **Employment details of parent, Australian Government child care census, Australia, 2004**

Per cent of children in care

Type of care	*Work-related*[a]			*Not work-related*			*Total*
	Sole parent	*Both parents*	*Total*	*Sole parent*	*One or both parents*	*Total*	
Private long day care	16	69	85	3	12	15	100.0
Community based long day care	12	75	87	3	10	13	100.0
Family day care	20	67	87	5	9	14	100.0
In home care	19	54	73	6	21	27	100.0
Outside school hours care	26	72	98	1	2	3	100.0
Vacation care	na	na	93	na	na	7	100.0
Occasional care	na	na	49	na	na	51	100.0
Multifunctional services	16	73	89	3	5	8	100.0
Multifunctional Aboriginal children's services	36	48	84	9	7	16	100.0

[a] Work-related means parent is working, studying or training for work or seeking employment.

Source: FaCS (2005b).

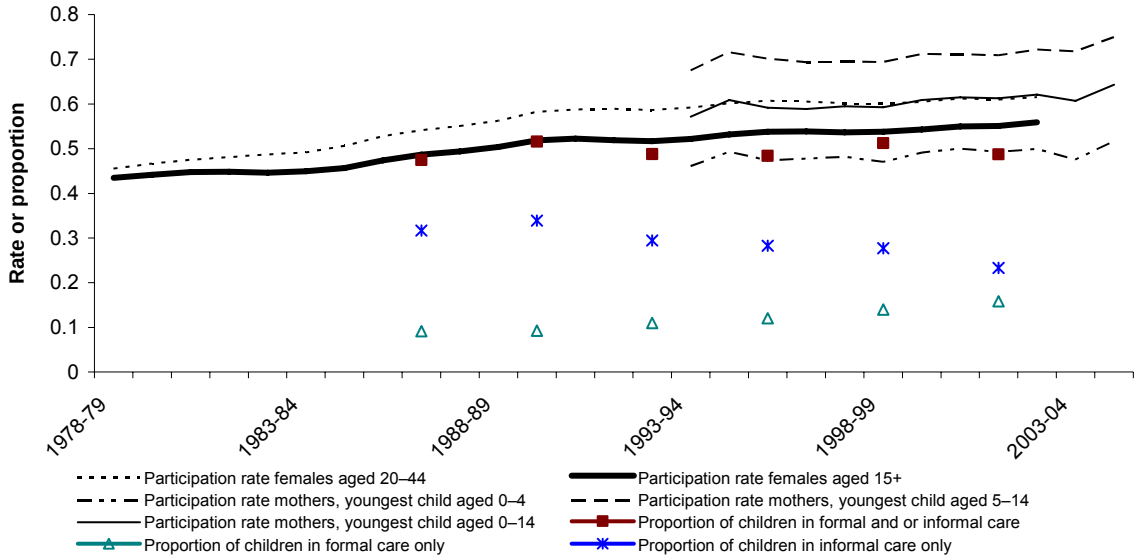
Table 14.5 **Reasons for using child care, HILDA, 2002**

Reason	*Number of households*	*Percent of households using child care for any purpose*
Households using child care		
Employment purposes only	549 463	50.6
Employment and non-employment purposes	226 462	20.9
Employment purposes	775 925	71.4
Non-employment purposes only	310 075	28.6
Non-employment purposes	537 414	50.0
Any purpose	1 086 000	100.0
Households not using child care	6 331 087	na
All households	7 417 086	na

Source: Compiled by Rammohan and Whelan (2004) which used wave 2 of the HILDA dataset collected in 2002.

Given its relationship with child care, unpublished data on the labour force participation of mothers were obtained from the ABS to measure the growth in child care coverage rates. The data were available for mothers whose youngest child's age falls into three age groups (0 to 4, 5 to 14 and 0 to 14). The earliest that this data were available was June 1994. Figure 14.1 presents this data, together with the proportion of children in care who are in formal and/or informal care. Also shown in the figure are the participation rates of females aged 20 to 44 (the typical child-bearing age range) and of females aged 15 and over since 1978-79.

Figure 14.1 **Labour force participation rates of females and children in care**



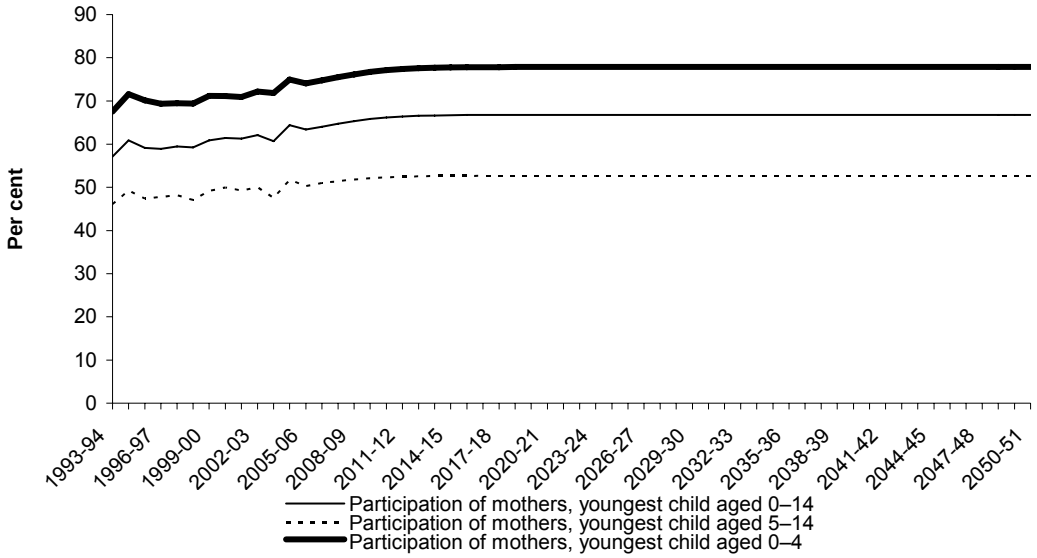
Data sources: ABS (2005, *Labour Force, Australia, Detailed* — Electronic Delivery, Monthly, Cat. No. 6291.0.55.001); ABS (various years, *Child Care Survey, Australia*, Cat. No. 4402.0); ABS commissioned data.

There are several notable features evident from figure 14.1.

- The participation rates of mothers have risen since 1993-94. Between 1993-94 and 2002-03 the average annual growth rates were around 1 per cent. Specifically, they were 0.8 per cent for mothers whose youngest child was aged 0 to 4, 0.7 per cent for mothers whose youngest child was aged 5 to 14, and 0.9 per cent for mothers whose youngest child was aged 0 to 14.
  - In comparison, the participation rates of females aged 15 and over rose at an annual average rate of 0.7 per cent. For females aged between 20 and 44, the annual average rate of growth was 0.4 per cent.
  - The participation rate of mothers whose youngest child was aged 0 to 14 is around the same as the participation rate of females aged 20 to 44.
- There has been no growth in the proportion of children in care who are in formal and/or informal care between 1992 and 2002.
  - However, there are sizeable changes in the mix of formal and informal care (see later).

The historical data on labour force participation of mothers were used to project participation rates to 2050-51 (figure 14.2). The participation rates were then used to calculate annual average growth for each year between 2002-03 and 2050-51. These annual growth rates were then applied to estimated coverage rates for the entire projection period for relevant children's age groups.

Figure 14.2 **Labour force participation of mothers, 1993-94 to 2050-51**



Data sources: ABS commissioned data; Commission estimates from 2005-06 onwards.

Labour force response to Government policy changes on child care

For school-aged children (children 5 years and older), an additional short term response to the Australian Government's recent changes to recipients of the parenting payment to encourage parents to seek work (or training) is incorporated (box 14.1). In announcing the changes, the Government also announced increases in child care funding and places of around 84 300 outside school hours care places, 2 500 family day care places and 1000 in-home care places over the next four years (box 14.1 and Patterson 2005). As the changes are to have an effect on parents applying for these payments from 1 July 2006, it is assumed that coverage rates would grow by an additional 1 per cent a year for four years from 2006-07 to 2009-10.

Use of formal care

An important trend in child care apparent from figure 14.1 is the shift from informal to formal care. Between 1987 and 2002, the share of children using formal care alone rose from 9 per cent to 16 per cent — or an average annual rate of growth of around 4.6 per cent — whereas the share of children using informal care alone declined from 32 per cent to 23 per cent — or an average annual rate of decline of 1.6 per cent.

By and large, formal and informal care may be viewed as substitutes, although ABS data show that parents may use both forms of care concurrently. The degree to which one is substituted for the other depends on such factors as relative price, with informal care typically free or cheaper than formal care, and availability or proximity of informal carers.

A main reason for the shift from informal to formal care, apart from government assistance, appears to be a decreasing supply of informal carers, particularly grandparents. Care of all children aged 0 to 11 by grandparents dropped by 21.2 per cent in 1999 to 19.1 per cent. For children aged 0 to 4 the rate of decline was sharper; from 29.6 per cent to 25.2 per cent. It is possible that grandparents today are staying in the labour force longer, are more likely to be separated by location or family breakdown, or are less physically able (because they are older) or willing to look after young children.

Were this trend to continue, it would result in a substantial increase in government expenditure on formal care, as this is the area in which most assistance is targeted. For example, there are around 54 000 recipients of child care benefit using registered care (that is, care provided by grandparents, nannies and so on who are registered with the Family Assistance Office) compared with around 670 000 recipients of child care benefit using an approved service (that is, care in most long day care centres, vacation care, family day care and so on) (ABS 2005).

It would be reasonable to expect that the trend in formal care use is likely to drive government expenditure on child care in the short term, but it is unlikely that this trend would continue in the long term. It was therefore generally assumed for the projections that the growth rate applying to coverage rates would incorporate the trend in formal care use and grow by an additional 4.6 per cent per year until 2006-07 when the percentage of children in care who were in formal care is estimated to reach 20 per cent.

Out-of-pocket costs of child care

Another potential factor affecting the growth in coverage rates is the trend in out-of-pocket costs of child care. For 4 per cent of children aged 0 to 11, the main reason quoted by parents for not using or requiring additional formal care was ‘cost or too expensive’ (ABS 2003, table 21). Thus, increasing out-of-pocket costs could mean that a small percentage of children are priced out of additional formal care. Because there is only a small percentage of children to which this reason applies, no underlying trend in out-of-pocket cost of child care was assumed.

Summing up

The base case annual growth rate applying to child care coverage rates for Australian Government and State and Territory child care programs consists of the sum of the following elements:

- a long-term trend in coverage rates measured by the annual rate of growth in the labour force participation of mothers over the projection period;
- a short-run increase in demand for child care arising from the response of parents to recent Government policy changes measured by an additional 1 per cent a year growth in coverage rates from 2006-07 to 2009-10; and
- a short run shift to formal care measured by an additional 4.6 per cent per year between 2002-03 and 2006-07 inclusive.

Where relevant, coverage rates are constrained not to exceed 1, which would mean that all children in the population in the particular age group are receiving the service.

Child care benefit

Coverage rates were estimated from data provided by Centrelink. Data on the total number of child recipients of the child care benefit as well as expenditure by age were used to estimate the number of child recipients by age between 0 and 12. This was then divided by the proportion of the relevant population age group using the Commission's population projections. The base case annual growth rate was applied to coverage rates for child care benefit recipients.

Child care tax rebate

There are no base year data on the number of child recipients of the tax rebate with which to estimate coverage rates. Although the rebate is likely to be claimed by parents receiving the child care benefit, the number of rebate recipients is likely to be less than the number of child care benefit recipients. This is because those not using child care benefit-approved care for work-related purposes and those without a tax liability would not be entitled to the rebate. It was assumed that around 50 per cent of child care benefit recipients would receive the rebate. This is consistent with ABS Child Care Survey data which show that 48 per cent of children in care are in formal care for work-related reasons (table 14.2).

Other Australian Government programs

Data on the number of children participating in the child care support program and child care assistance for eligible parents undergoing training program were obtained from latest FaCS Annual Report for 2004-05 (2005a). The data were divided by the population of children aged 0 to 12 using the Commission's population projections. Coverage rates were assumed to grow in line with the base case growth in coverage rates described earlier.

State and Territory programs

Where possible, coverage rates for State and Territory programs were obtained for each jurisdiction from the Report on Government Services (SCRGSP 2005 and 2006, vol. 2, chapter 14). The number of children covered by the child care and preschool programs was divided by the relevant age groups in the population. Given that age of entry varies across the States and Territories for preschools, it was assumed that the relevant population age group for children in preschool in the year before full time school was age 4 and for younger children in preschool was age 3.

The base case growth rate for Australian Government child care was assumed to also apply to State and Territory child care programs.

As work-related reasons do not signify as greatly for children in preschools compared with those in child care (table 14.2), it was assumed that coverage rates for preschool programs would grow in line with average annual growth over the past six years from data in the Report on Government Services on the participation of children in preschool in the year as a proportion of the relevant age group in the population (table 14.6). The growth values are further constrained to lie within a minimum of -1 per cent a year and a maximum of +1 per cent a year; otherwise, coverage rates would be subject to unsustainable growth over the projection period. A further assumption about coverage rates of children in preschool in the year before full time school is they cannot exceed 1 (the entire population of four year olds) or be less than 0.5 (50 per cent of the population of four year olds).

Table 14.6 **Assumed growth in preschool coverage rates**[a]

Average annual growth rate	*NSW*	*Vic*	*Qld*	*WA*	*SA*	*Tas*	*NT*	*ACT*
For children in preschool in the year before full time school[b]	-0.004	0.003	0.003	0.047	-0.001	0.004	0.001	-0.012
For younger children in preschool[c]	-0.008	na	-0.007	-0.010	0.007	na	0.010	0.010

a Constrained to fall between -1 per cent a year and + 1 per cent a year. **b** This is the average annual growth in the last six years of the proportion of children in preschool in the year before full time school in the four year old population. **C** This is the average annual growth in the last six years of the proportion of younger children in preschool in the 3 year old population. **na** not available.

Source: Commission estimates based on SCRGSP (2005, 2006).

Average cost of child care and preschools

Hours of attendance

It is not possible from the available government expenditure data to obtain an estimate of the average cost of child care by age of child. However, it is apparent that average cost differs for children of different ages as the hours of attendance vary across child care service types. Data from the Australian Government 2004 Census of Child Care Services indicate that younger children aged 0 to 4 typically spend more hours in care than school-aged children (table 14.7).

Table 14.7 **Average child attendance hours per week, 2004**

Hours and minutes

Child care type	*Main ages*	*NSW*	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*	*ACT*	*Aust.*
Private long day care	< 5	18:32	21:38	20:54	19:19	18:27	17:13	29:16	26:11	21:38
Community long day care	< 5	19:40	20:19	20:51	16:54	17:53	15:25	28:39	22:38	20:19
Family day care	< 5	19:22	17:25	21:40	19:51	17:57	14:46	26:48	24:11	17:25
In home care	< 5	21:42	19:18	23:44	18:38	21:38	16:04	0:00	12:20	19:18
Occasional care	< 5	10:24	7:14	10:24	8:45	10:13	8:31	17:00	9:58	7:14
Multifunctional services	< 5	15:07	16:10	25:47	15:25	20:24	0:00	23:25	0:00	16:10
MAC's services[a]	< 5	15:45	19:54	30:43	18:40	20:26	17:31	23:22	0:00	19:54
Outside school hours	5+	8:53	6:56	8:09	6:18	8:08	5:32	11:28	8:51	6:56
Vacation care (days)	5+	2:90	2:80	2:90	2:60	2:90	2:50	3:80	3:30	2:80
Vacation care (hrs)[b]	5+	3:35	3:23	3:35	3:00	3:35	2:88	4:38	3:81	3:23
Adjustment factor (R)[c]		0:42	0:32	0:33	0:29	0:35	0:35	0:34	0:36	0:32

[a] Multifunctional Aboriginal children's services. [b] Converted to hours per week by assuming that children spend 6 hours a day for 10 weeks a year in vacation care. [c] Obtained by dividing the weighted average of child care services used by school-aged children by the weighted average of child care services used by children less than five years of age. The weights used are the proportions of children attending each type of service.

Source: FaCS (2005b).

For the projections, average hours of attendance data were used to adjust initial estimates of average cost of child care in the following way.

- The ratio of average weekly hours of care of school-aged children to the average weekly hours of care of younger children was estimated (R).
- An estimate of an average cost for all age groups (AC) was obtained.
- The adjustment factor R was then applied to the average cost estimate to obtain separate estimates of average cost of children under five years of age and of school-aged children using the following formulas (box 14.4):

  AC(under 5) = 2*AC/(1+R)

  AC(5 and over) = 2*AC*R/(1+R)

Box 14.4 **A method for adjusting average cost of child care**

Where it is not possible to obtain average cost for particular age groups, but it is possible to obtain average cost for all age groups (AC), the following method and assumptions were applied to obtain an average cost of children under 5 (the young) and an average cost of school-aged children.

Average cost of child care is given by:

$$AC = C/N$$
$$N = Ny+Ns$$

where C is the total expenditure on child care in a year, N is the total number of children in child care, Ny is the number of children under 5 in child care and Ns is the number of school-aged children in child care.

The number of hours that young and school-aged children spend in care in a year is given respectively by:

$$Hy = \alpha*hy$$

$$Hs = \beta*hs$$

where α is the number of weeks that the young are in care, hy is the number of hours in a week that the young spend in care, β is the number of weeks that school-aged children are in care and hs is the number of hours in a week that school-aged children spend in care.

The number of hours that all children spend in care in a year is:

$$H = Hy+Hs$$

Assuming that α = β then:

$$R = Hs/Hy$$

Average costs of the young is given by the average hourly costs in a year for all children multiplied by the hours that the young spend in care divided by the number of young in care:

$$ACy = [C/H]*[Hy/Ny]$$
$$= C/[Ny(1+R)]$$

if $Ny = \gamma*N$ where γ is the share of children 0 to 12 who are young then:

$$ACy = C/[\gamma*N*(1+R)] = AC/\gamma*(1+R)$$

Assuming that γ is 1/2 then:

$$ACy = 2*AC/(1+R) \text{ and}$$

$$ACs = 2*AC*R/(1+R)$$

Child care benefit

The average cost of the child care benefit was estimated from data provided by Centrelink.[2] Expenditure for the age group 0 to 12 was divided by the number of children receiving the child care benefit payment. It was adjusted to reflect hours of attendance using the method above and relevant data in table 14.7. Estimates of average costs by age group were converted to 2002-03 prices using the GDP implicit price deflator. The average cost of the child care benefit was assumed to be indexed only to the CPI over the projection period, consistent with current policy to index to the CPI the maximum rate of benefit each year.

Child care tax rebate

The only available data on expenditure on the child care tax rebate are Treasury projections between 2003-04 and 2008-09 in the Australian Government 2005-06 Budget. The average cost was obtained by dividing these expenditure projections by the number of recipients of the child care benefit (assuming that this would equal the number of recipients of the rebate). These estimates were converted to 2002-03 prices using Treasury projections of CPI. It was assumed that, from 2008-09, the average cost of the rebate, because of its link with the child care benefit as well as the indexing of the maximum with the CPI, would grow only in line with the CPI over the projection period.

Other Australian Government programs

Data on expenditure on, and the number of children covered by, the child care support program and child care assistance for eligible parents undergoing training program for 2004-05 were obtained from the latest FaCS Annual Report (2005a, vol. 2). This data enabled more recent estimates of average cost then were possible for the child care benefit.

The average cost for each program was obtained by dividing expenditure by the number of children covered. It was argued by Government officials that an average cost for these programs was not a meaningful concept because the programs were capped. However, capping is a short term phenomenon; it is likely that the Government would need to make periodic adjustments to the cap. As projections are to be made over a long term horizon, it was considered appropriate to apply the average cost method, as is done elsewhere in the Commission's Ageing Study.

[2] These data were used despite more recent expenditure data being available for 2004-05 as there were no data on the number of children receiving the child care benefit in 2004-05 with which to calculate average cost for 2004-05.

Estimates of average costs were then converted to 2002-03 prices using the GDP implicit price deflator.

Although average cost was projected to grow in line with real wage growth over the long run (which was estimated as being equal to the underlying productivity growth of 1.75 per cent per annum over the projection period), a higher short term growth rate was applied for the first five years:

- The support for child care program was indexed by a combination of the Department of Finance and Administration's Wage Cost Index 2 (box 14.5) of 2.1 per cent per annum and an efficiency dividend of 1 per cent per annum.
- The child care assistance for eligible parents program was indexed by Wage Cost Index 2.

Box 14.5 **Wage Cost Index**

The Department of Finance and Administration has developed a series of wage cost indexes to index specific purpose payments, Commonwealth own purpose payments and running costs. They are based on the safety net adjustment handed down by the Australian Industrial Relations Commission and underlying inflation. The safety net adjustment covers wage components while underlying inflation covers the non-wage component of labour costs. There are a range of wage cost indexes depending on the weighting of the wage and non-wage costs of the program to the index.

Source: DOFA (2005).

State and Territory programs

Where possible, estimates of average costs were obtained for each State and Territory for 2004–05 from the latest Report on Government Services (SCRGSP 2006, vol. 2, chapter 14). Total expenditure on child care was divided by the number of participating children for each jurisdiction and then adjusted to reflect hours of attendance using the method above and relevant data in table 14.7. Total expenditure on preschools was divided by the number of participating children. All estimates were converted to 2002-03 prices using the GDP implicit price deflator. It was assumed that average cost would grow in line with real wage growth of 1.75 per cent per annum over the projection period.

14.4 Projections

Using the above method and data, government expenditure on child care and preschools as a share of GDP is projected to decline from 0.28 per cent in 2002-03

to 0.24 per cent in 2044-45, or by 0.04 percentage points (table 14.8). The decline is driven by trends in the Australian Government component of government expenditure. This is unsurprising given that Australian Government spending accounts for around three-quarters of all government spending (table 14.1).

Table 14.8 **Projected government expenditure on child care and preschools as a proportion of GDP**

	2002-03	*2044-45*
	%	%
Australian Government		
Child care benefit	0.18	0.13
Support for child care	0.03	0.03
Child care tax rebate	–	0.02
Child care for eligible parents undergoing training	–	–
Total[b]	0.21	0.18
States and Territories		
Child care	0.02	0.01
Preschool	0.06	0.05
Total	0.07	0.06
Total	**0.28**	**0.24**

[a] The difference between expenditure on the rebate between 2006-07, when the measure begins to take effect and 2044-45, is -0.01 percentage points [b] The total for 2002-03 includes child care assistance and the child care rebate which applied until 2002-03. – denotes nil or rounded to zero.

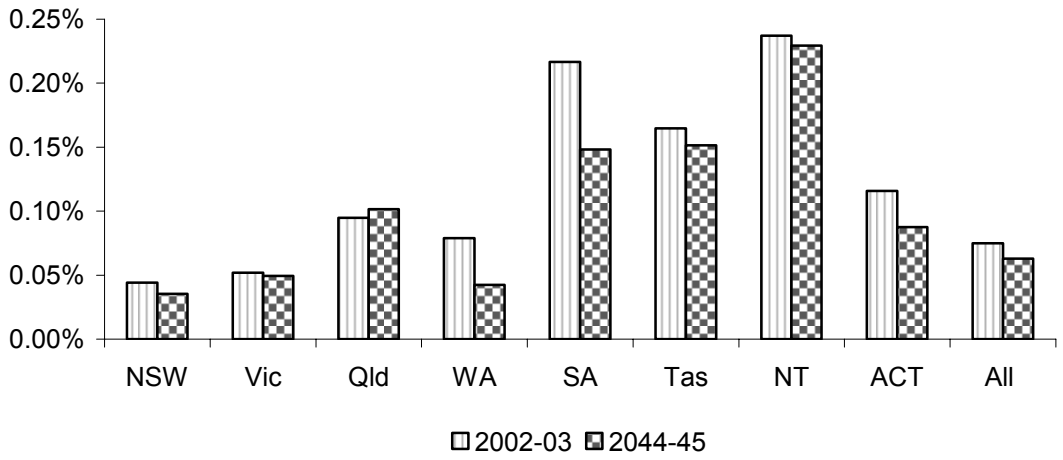
Source: Commission estimates.

The projected extent of decline in Australian Government expenditure is around 0.03 percentage points as a share of GDP. The main reason for this decline is a reduction in spending on the child care benefit as a share of GDP. There are small projected (albeit negligible) increases in expenditure on other programs, largely due to underlying assumptions about growth in average cost.

State and Territory expenditure as a share of GDP is projected to decline by 0.01 percentage points.

For individual States and Territories, apart from Queensland, expenditure on child care and preschools as a share of GSP is projected to decline from between 0.03 percentage points of GSP in Victoria to 0.07 percentage points of GSP in South Australia (figure 14.3). For Queensland, there is a projected increase of 0.01 percentage points of GSP. The differences reflect the differing growth in State and Territory GSPs and child populations and their interaction with the underlying growth assumptions for average costs and coverage rates (table 14.9).

Figure 14.3 **Projected State and Territory expenditure on child care and preschools as a share of GSP/GDP**



Data source: Commission estimates.

Table 14.9 **What's driving growth in government expenditure as a share of GDP/GSP?**

Growth in selected variables between 2002-03 and 2044-45

	Expend-iture	*GSP/GDP*	*Child pop. (aged 0 to 12)*	*Child pop. (aged 4)*[a]	*Child care recipients*	*Preschool recipients*
	%	%	%	%	%	%
Australian Government	132	171	14	15	40[b]	–
States and Territories						
NSW	106	163	10	10	31	-10
Vic	159	155	9	11	88	14
Qld	262	238	39	41	1	35
WA	59	196	1	-1	na	36
SA	34	96	-17	-17	9	-15
Tas	56	72	-24	-27	-36	-19
NT[c]	125	155	-5	-1	na	15
ACT	72	146	5	5	na	-31
All States and Territories	127	171	14	15	29	8

[a] The child population aged 4 is relevant to preschool expenditure which is the responsibility of the States and Territories. [b] Relates to recipients of the child care benefit. [c] The Northern Territory projections are from the PC-NTALT series. – denotes nil or rounded to zero. **na** denotes not available.

Source: Commission estimates.

The impact of ageing

The impact of ageing on government expenditure on child care and preschools was isolated from non-demographic factors such as growth in coverage rates as well as in average costs (table 14.10). Total government expenditure on child care and preschools is projected to be over $800 million, or 14 per cent, lower than if the age structure remained as it was in 2002-03. In its Ageing Study, the Commission estimated that the reduction in government expenditure on schools due to ageing was around 21 per cent (PC 2005, p. 221). Thus, ageing has less impact on child care and preschool spending than on spending on schools. This can be explained by differences in underlying assumptions about growth in participation rates and in average costs. In the Ageing Study, it was assumed that school participation rates were held constant and that school expenditure per child initially grew at a rate of 3.2 per cent per annum, gradually reducing over a ten year period until it reached 1.75 per cent per annum where it stayed at this rate for the rest of the projection period (PC 2005, pp. 209, 214).

Table 14.10 **Impact of ageing on government expenditure on child care and preschools, 2044-45[a]**

	Base case expenditure (with ageing)	*Expenditure if there were no ageing*	*Percentage decrease due to ageing*
	$m	$m	%
Australian Government			
Child care benefit	2 671	3 204	17
Support for child care	593	730	19
Child care tax rebate	332	383	13
Child care for eligible parents undergoing training	44	54	19
Total[b]	3 640	4 371	17
States and Territories			
Child care	278	323	14
Preschool	1 012	1 042	3
Total[b]	1 291	1 365	6
Total[b]	**4 930**	**5 737**	**14**

[a] In 2002-03 prices. [b] Totals may not add due to rounding.

Source: Commission estimates.

The impact of CPI indexation

The Australian Government indexes the child care benefit and the child care tax rebate to the CPI. As this is currently Government policy, this indexation arrangement was maintained in the base case projections.

However, the impact of this policy over time would be to reduce the child care subsidy rate as changes in the cost of providing child care services outpaces changes in the child care benefit and the child care tax rebate. It is likely that the Government would need to make periodic adjustments to the child care benefit and the child care tax rebate over the next 40 years to ensure that they were in line with costs.

Therefore, projections on the basis of CPI indexation, while consistent with Government policy, are likely to understate the long run value of the child care benefit and child care tax rebate. For example, if the Government decided to index the child care benefit and child care tax rebate to average weekly earnings (AWE), as it does for other transfer payments such as the disability support pension and the age pension, government expenditure in 2044-45 would be 14 per cent above that of the base case for that year (table 14.11).

Table 14.11 **Impact of changing the indexation arrangement for the Australian Government child care benefit, 2044-45[a]**

	Base case expenditure (CPI indexation)	*Expenditure if AWE indexation*	*Percentage increase due to AWE indexation*
	$m	$m	%
Australian Government			
Child care benefit	2 671	3 204	17
Support for child care	593	593	–
Child care tax rebate	332	619	46
Child care for eligible parents undergoing training	44	44	–
Total[b]	3 640	4 460	18
States and Territories			
Child care	278	278	–
Preschool	1 012	1 012	–
Total[b]	1 291	1 291	–
Total[b]	**4 930**	**5 751**	**14**

a In 2002-03 prices. **b** Totals may not add due to rounding. – denotes nil or rounded to zero.

Source: Commission estimates.

The impact of no growth in coverage rates

The impact of changing the assumption about growth in coverage rates was tested (table 14.12). The projections in the base case were compared with that of assuming coverage rates to remain at 2003-04 levels throughout the projection period (no growth). The impact of this change is that government expenditure in 2044-45 would be 18 per cent lower than in the base case.

Table 14.12 **Impact of no growth in coverage rates, 2044-45[a]**

	Base case expenditure	*No growth*	*Percentage reduction due to no growth*
Australian Government	$m	$m	%
Child care benefit	2 671	2 037	31
Support for child care	593	503	18
Child care tax rebate	332	323	3
Child care for eligible parents undergoing training	44	37	18
Total[b]	3 640	2 899	26
States and Territories			
Child care	278	244	14
Preschool	1 012	1 053	-4[c]
Total[b]	1 291	1 296	–
Total[b]	**4 930**	**4 195**	**18**

[a] 2002-03 prices. [b] Totals may not add due to rounding. [c] This means that preschool expenditure increased because of a change in the assumption about growth in coverage rates. Under the base case scenario, some States and Territories had negative growth in coverage rates. Hence, an assumption about no growth in coverage rates would restrict the extent to which expenditure in these States and Territories would fall. – denotes nil or rounded to zero.

Source: Commission estimates.

14.5 Summing up

Government expenditure on child care and preschools as a share of GDP is projected in the base case to decline by around 0.04 percentage points. The extent of this decline is too small to offer fiscal relief to governments from ageing.

If the impact of ageing were isolated from non-demographic factors, such as growth in coverage rates and average costs, government expenditure in 2044-45 would be around 14 per cent lower than if the age structure remained as it was in 2002-03.

If the indexation arrangement applying to the child care benefit were adjusted to maintain the current subsidy rate, this would increase government expenditure in 2044-45 by around 14 per cent compared with retaining CPI-indexation.

Assuming no growth in coverage rates would mean that government expenditure in 2004-05 would be 18 per cent below that of the base case for that year.

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