

**Australian Capital Territory  
Submission  
to  
Productivity Commission Study  
into the Economic Implications  
of an Ageing Australia**

**September 2004**

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## I. INTRODUCTION

1. The ACT Government welcomes the current research study. An ageing population will have a range of economic and fiscal implications for all jurisdictions, and for Australia as a whole. As such, the focus of the Commission on all levels of government is particularly pleasing as it recognises that ageing is an important national issue that will require a national response.
2. This submission has six sections. Following this Introduction, Section II provides an overview of demographic developments in the ACT over the last decade, and details expectations for population change over the next 40 years. Section III presents a detailed examination of the economic and fiscal impacts of population ageing on the ACT. Section IV outlines areas where the ACT might be expected to benefit from an ageing population. Section V discusses some of the key assumptions underlying long-term modelling of the impacts of ageing. The final Section concludes the Submission.

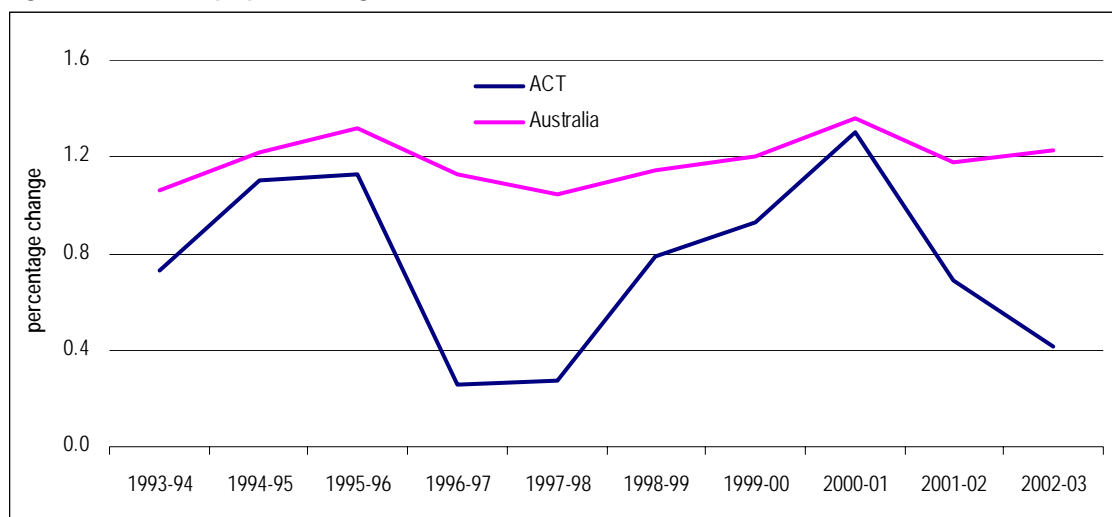
## II. ACT DEMOGRAPHICS

3. The following section provides a summary of the key demographic developments in the ACT over the last 10 years, and projections for population change over the next 40 years. A more detailed treatment of this information is provided at Appendix A.

### ACT Population – Historical

4. Although the current ACT population profile is somewhat younger than the national average, population growth in the ACT in recent times has been slower than that at the national level while the rate of ageing has been faster.

Figure 1: Annual population growth rates, ACT and Australia



Source: ABS Cat No. 3101.0

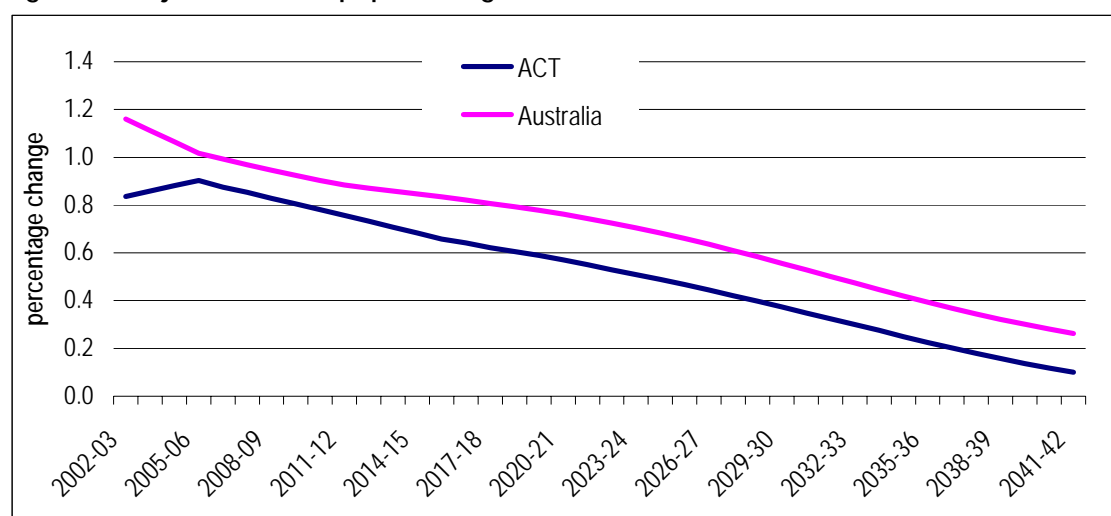
5. Over the last ten years, the ACT population has grown at an average annual rate of 0.8 per cent, below the national growth rate of 1.2 per cent. During this period, growth from natural increase has been the major driver of population growth in the ACT, and for much of the period, there has been net migration out of Canberra.

6. The current population profile in the ACT, measured as the median age, is significantly younger than the national average. However, the median age of the ACT population has been growing at a faster rate than the national population. At June 1993, the median age in the ACT was 30.2 years compared to a national median age of 33.0 years. By June 2003, the ACT median age had grown to 33.8 years while the national median age reached 36.1 years.

### ACT Population – Projections

7. The following ACT population projections are for the forty-year period 2002 to 2042. The projections are the official ACT Government series and have been prepared by Demographics ACT, the ACT Government agency responsible for demographic analyses and population forecasting.
8. The assumptions underpinning the projections have been determined through consultation and discussion with ACT Government officers and the Australian Bureau of Statistics (ABS), and include:
  - an annual net migration inflow of 500 persons per year;
  - a fall in the fertility rate from 1.5 to 1.4; and
  - ongoing improvement in mortality rates.
9. The ACT projections fall between the Series B and Series C projections produced by the ABS and incorporate the latest demographic trends from the 2001 Census of Population and Housing released by the ABS in 2003. The national data detailed below are the official ABS projections.
10. Over the 40 years to 2042, the ACT population is projected to grow by around 75,000 people to a total of almost 397,000. This represents an average annual growth rate of 0.5 per cent per year compared with the current ABS national forecast of 0.7 per cent.

Figure 2: Projected annual population growth rates, ACT and Australia



Source: ABS Cat No. 3222.0 and Demographics ACT

11. Almost all of the growth in the ACT population is set to occur in the 65+ age group, with expectations of 3.2 per cent average growth per annum over the projection period. Some growth is expected in the 15-64 age group (0.2 per cent) while negative growth is expected in the 0-14 age group (-0.5 per cent).
12. The median age of the ACT population is expected to continue to rise, from 33.5 years in 2002 to 45.7 years in 2042. As such, by 2042 the ACT median age should be roughly the same as the national median.
13. The strong growth in the ACT median age to 2042 is reflected in the changing shares of the age groups within the population. By 2042, the 65+ age group is expected to account for 25.2 per cent of the ACT population, up from 8.8 per cent at the beginning of the projection period. The shares of the remaining age groups are predicted to fall over the projection period, with the 0-14 age group down from 20.2 to 13.2 per cent, and the 15-64 age group declining from 71.0 to 61.6 per cent of the ACT population.

### **III. IMPLICATIONS OF AN AGEING POPULATION FOR THE ACT**

14. An ageing population will have a range of economic and fiscal implications for the ACT. There will almost certainly be fiscal pressures as demand for services from an ageing population increases. However, it is also important to recognise that although an ageing ACT population will provide a number of challenges in the years ahead, it will also present new opportunities for the Territory.
15. The following sections provide detail on the projected economic and fiscal impacts of ageing on the ACT. The projections have been generated using the State Intergenerational Model (SIGR) developed by Access Economics. The population projections underpinning the modelling are those prepared by Demographics ACT and described earlier in this submission.
16. The SIGR model produces 40-year projections based on actual data to 2001-02, and includes assumptions about population growth and ageing, and a set of parameters such as technical output growth, growth in grants to States, and health price effects.

#### **Economic Impacts of Ageing**

17. Although there is a good deal of debate on the relationship between population change and economic growth, the prevailing view is that an ageing population will result in lower levels of economic growth than would otherwise be achieved in the absence of ageing.<sup>1</sup> This view is formed on the premise that ageing will result in, among other things:<sup>2</sup>
  - a contraction in the supply of available labour as an increasing number of workers retire from the labour force;

<sup>1</sup> See, for example, the Commonwealth Government's Intergenerational Report.

<sup>2</sup> Council on the Ageing (Australia), *The Economics of the Ageing Population: The Role of Mature Age Employment*, Melbourne, 2001, <http://www.cota.org.au/economic.htm> accessed 6 August 2004.

- a reduction in national savings – public savings fall through increased outlays on aged-related services and income support, while private savings fall as individuals draw on savings to fund their retirement;
- a reduction in investment due to the draw down on savings;
- a reduction in tax income through labour force contractions;
- pressure on government operating balance due to upward pressure on outlays and downward pressure on revenues; and
- a reduction in human capital through retirement without replacement.

18. Table 1 details projections of the economic impacts of ageing on the ACT economy under the current ACT long-term population forecasts. The results are presented as the differences that arise due to ageing against a base of zero change in the current demographic structure of the ACT population.

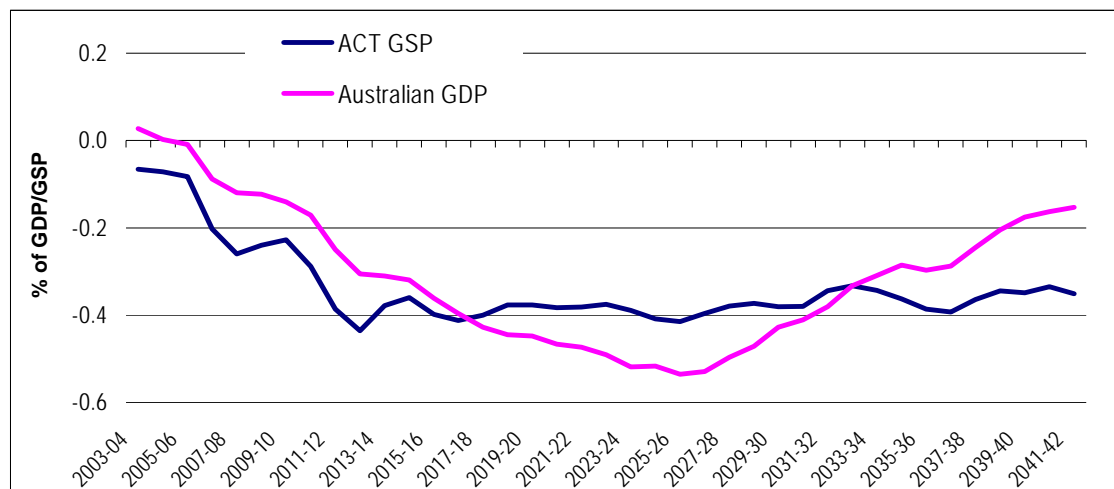
**Table 1: Impacts of Ageing on the ACT Economy**

	2002-03 to 2006-07	2007-08 to 2011-12	2012-13 to 2021-22	2022-23 to 2031-32	2032-33 to 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
General government consumption	2.0	0.2	-0.8	-0.1	1.0	0.3
Private consumption	-4.4	-0.8	1.0	-0.8	-3.2	-1.4
Dwelling investment	8.1	-6.2	-6.8	2.8	0.7	-0.7
Total business investment	2.2	-0.3	-1.5	-0.9	0.3	-0.3
General government investment	2.0	-0.2	-1.3	-0.8	0.3	-0.2
Exports of goods and services	2.0	-0.4	-1.7	-1.3	0.1	-0.5
Imports of goods and services	4.5	-1.2	-2.9	-1.8	0.5	-0.6
Gross State Product	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3
Output per head	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3
Price index – GSP deflator	0.0	0.0	0.0	0.1	0.1	0.1
Employment	-0.1	-0.3	-0.4	-0.4	-0.4	-0.3

Source: ACT Treasury estimates – SIGR Model.

19. As illustrated above, ageing is expected to have a negative impact on virtually all of the key ACT macroeconomic variables. In the 40 years to 2042, ACT Gross State Product (GSP) is expected to be 0.3 per cent per annum lower as a result of ageing.
20. The economic results are driven by a projected contraction in the local labour force due to the structural ageing of the population. This in turn leads to a decline in the growth rate of private consumption and dampens overall growth in the economy.
21. At its peak, the impact of ageing on the local economy is likely to be less than that at the national level (figure 3). However, over the projection period in average annual terms, the negative impact of ageing on the two economies is expected to be roughly the same (-0.3 per cent).

Figure 3: Annual impact of ageing on GSP and GDP growth

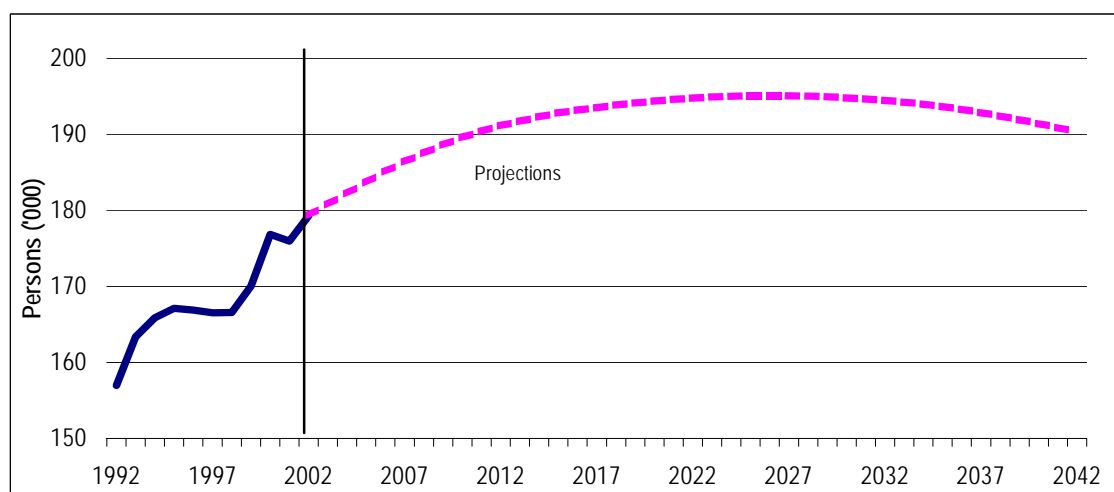


Source: ACT Treasury estimates – SIGR Model.

### The ACT Labour Force

22. Labour supply in the ACT is likely to be one of the key issues facing local policy makers in the coming decades. With the ACT unemployment rate currently below 4 per cent, job vacancies at historically high levels, and reports of labour shortages across a number of key sectors, the capacity of the local labour market is already being tested. Over the next 40 years, this situation is likely to worsen as structural ageing of the population across the country is expected to lead to a declining labour force and even greater competition between jurisdictions for available workers.
23. In the last 10 years, the ACT labour force has grown by about 16,000 people. Looking forward, Canberra's labour force is projected to grow by around 15,800 in the next 24 years, to reach its peak in 2026 (figure 4) at 195,000. From this high point, the labour force is expected to decline at an average annual rate of 0.2 per cent, falling to 190,400 by 2042.

Figure 4: ACT labour force, actual and projected



Source: Demographics ACT estimates.

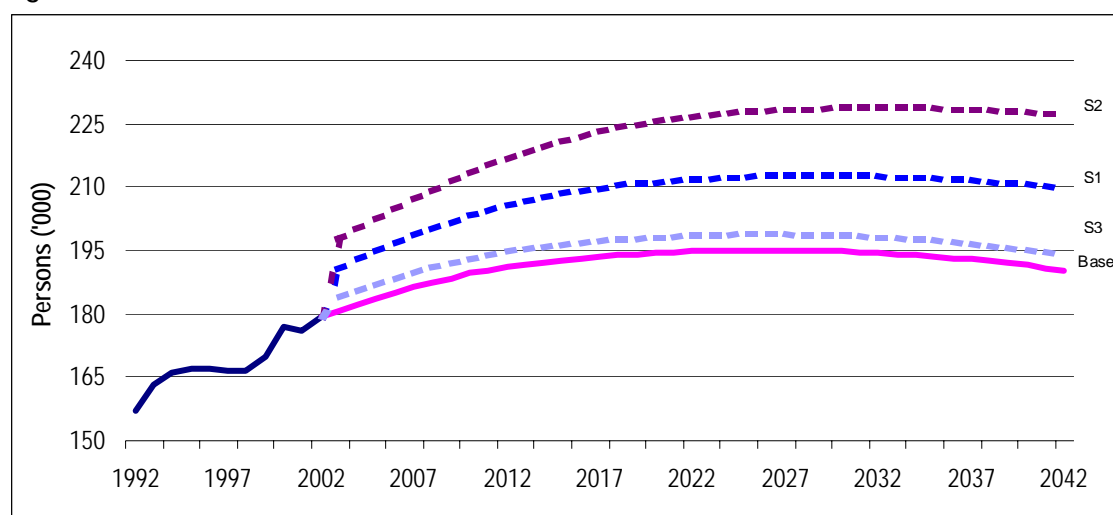


24. In summary, the ACT labour force is expected to grow slowly in coming decades, leading to a projected shortage of workers. With similar trends projected for the other States, attracting interstate migrants to the ACT will become even more difficult.

#### Labour Force Sensitivity

25. The previous analysis assumes no change in labour force participation rates over time, and that individuals in the future will choose a working life of similar length to the current ACT averages. Varying these assumptions has a significant impact on the long-term projections for the ACT labour force.
26. Figure 5 compares three additional scenarios to the current labour force projections:
- retirement for all labour force participants is delayed by five years (S1);
  - retirement for all labour force participants is delayed by 10 years (S2); and
  - female participation is increased by 25 per cent (S3).

Figure 5: Labour force sensitivities



Source: Demographics ACT and ACT Treasury estimates.

27. As life expectancies continue to increase, many of the individuals contemplating retirement will almost certainly struggle to fund their expected standard of living across their remaining years. This being the case, many older people are likely to delay their retirement, and this will have a number of flow-on effects:<sup>3</sup>
- prevent, or at least assuage, any long term slowdown in economic growth;
  - reduce demands on social security payments as more retirees are able to self-fund their living expenses; and
  - provide a retirement income consistent with the life expectancies and expectations of older Australians.

<sup>3</sup> Council of the Ageing (Australia).

28. From an ACT perspective, delaying retirement can be expected to have significant impacts on the size of the labour force. This should, in turn, have positive impacts on both the ACT economy and the ACT Budget.
29. If retirement is delayed by five years (Scenario S1), Canberra's labour force is projected to grow by around 33,700 people before reaching its peak in 2029 at 213,000. From this point, the labour force would be expected to decline to around 210,000 by 2042. These results represent significant increases on the base case where there is no change to the current length of working life across the projection period.
30. The results are even more pronounced if retirement is delayed by 10 years. Under this scenario (S2), Canberra's labour force is projected to grow by around 50,000 people to its peak of 229,000 in 2033. The labour force would then decline slightly to 227,500 by 2042.
31. The final labour force scenario (S3) examines increases in female participation. Female participation rates have risen in recent decades, although the rate of increase is slowing.
32. Compared to the delaying retirement scenarios, a 25 per cent increase in female participation will have only a small impact on the size of the ACT labour force. Under this scenario, Canberra's labour force is projected to grow by around 19,800 people up to its peak of 199,100 in 2026. The labour force would then decline by around 5,000 people to 194,300 by 2042.

### **Fiscal Impacts of Ageing**

33. Over the coming decades, an ageing population is likely to place significant pressure on the ACT Budget. Growth in a number of key revenue lines is expected to slow as economic growth eases, while expenditure across a range of portfolios will increase as the population ages.
34. The following table shows projections of the impacts of ageing on a range of revenue and expenditure lines within the ACT Budget. As with the economic projections outlined previously, the results are presented as the differences that arise due to ageing against a base of zero change in the current demographic structure of the ACT population.

**Table 2: Impacts of ageing on the ACT Budget**

	2002-03 to 2006-07	2007-08 to 2011-12	2012-13 to 2021-22	2022-23 to 2031-32	2032-33 to 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
<b>Revenue</b>						
Payroll taxes	-0.1	-0.3	-0.4	-0.4	-0.3	-0.3
Land taxes	-0.1	-0.3	-0.4	-0.3	-0.2	-0.3
Stamp duties on financial and capital transactions	2.7	-4.0	-4.0	0.9	0.7	-0.8
Taxes on gambling	-2.5	0.2	1.9	-0.3	-2.8	-0.6
Taxes on insurance	-0.1	-0.3	-0.4	-0.3	-0.2	-0.3
Motor vehicle taxes	-3.3	-0.8	1.1	-0.7	-3.1	-1.2
Other taxes	-0.1	-0.3	-0.4	-0.3	-0.2	-0.3
Total taxes	0.1	-1.2	-0.8	-0.2	-0.5	-0.5
 Total grants and subsidies	 -0.1	 -0.2	 -0.3	 -0.5	 -0.3	 -0.3
 Sales of goods and services	 0.3	 0.0	 0.4	 1.1	 1.9	 0.9
Interest income	-0.0	0.4	-0.2	-0.2	-0.1	-0.2
Dividend income	-0.1	-0.3	-0.4	-0.3	-0.2	-0.3
Income tax equivalent income	-0.1	-0.3	-0.4	-0.3	-0.2	-0.3
All other revenue	-0.7	-0.3	-0.0	-0.4	-0.8	-0.4
Total other revenue	-0.2	-0.2	0.2	0.5	1.3	0.4
 <i>Total revenue</i>	 <i>-0.0</i>	 <i>-0.5</i>	 <i>-0.3</i>	 <i>-0.0</i>	 <i>0.4</i>	 <i>-0.0</i>
 <b>Expenditure</b>						
General public sector	-0.0	-0.1	-0.1	0.2	0.5	0.1
Public order and safety	-0.3	-0.5	-0.6	-0.5	-0.3	-0.4
Education	-1.0	-1.4	-1.3	-1.1	-0.6	-1.1
Health	0.9	1.3	1.3	1.4	1.2	1.2
Social security and welfare	0.1	0.2	0.3	0.2	0.3	0.2
Housing and community amenities	2.1	-4.3	-3.5	1.7	0.4	-0.7
Recreation and culture	-0.0	-0.1	-0.3	-0.3	-0.1	-0.2
Transport and communications	0.1	-0.0	-0.3	-0.3	-0.1	-0.2
Other portfolio expenses (balance)	0.0	0.3	0.8	1.7	2.9	1.4
Total portfolio expenses	0.1	-0.1	0.3	1.1	2.0	0.8
 <i>Total expenses</i>	 <i>0.1</i>	 <i>-0.1</i>	 <i>0.3</i>	 <i>1.1</i>	 <i>2.0</i>	 <i>0.8</i>
 Net operating balance to GSP	 -0.0	 -0.2	 -0.8	 -3.0	 -9.3	 -3.3
Net lending to GSP	-0.0	-0.2	-0.8	-3.0	-9.3	-3.3
Net financial liabilities to GSP	0.0	0.6	4.1	18.2	60.8	20.8
Total purchase of non-financial assets to GSP	0.0	0.0	0.0	0.0	0.0	0.0
Net debt to GSP	0.1	0.6	4.2	18.4	61.2	21.0

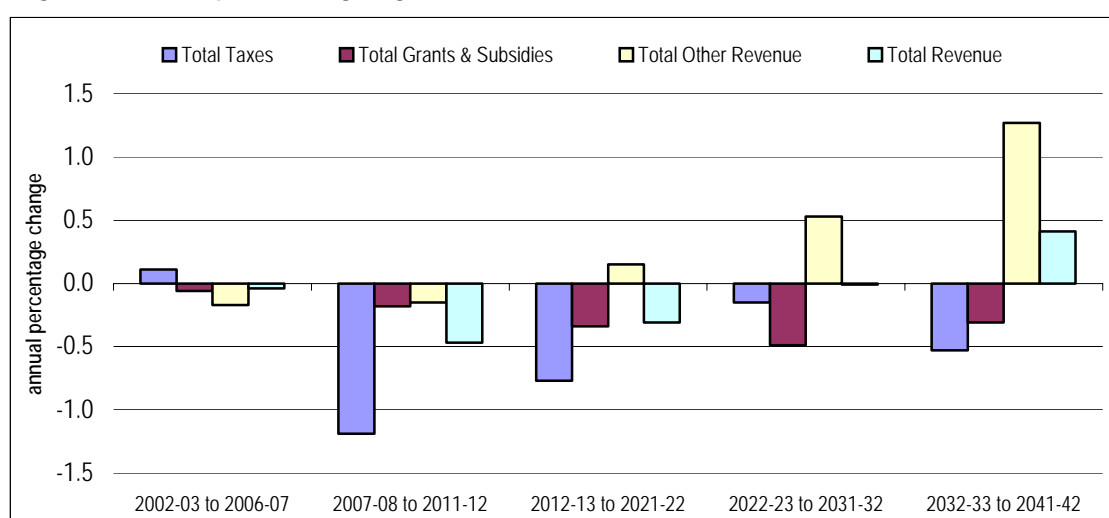
Source: ACT Treasury estimates – SIGR Model.

35. The budgetary impact of ageing on the ACT is expected to be less severe than the impact at the national level. There are three main reasons:
- most of the negative factors of the demographic change impact on the federal budget earlier as baby boomers start to retire from the workforce - the negative factors related to the demographic changes such as aged care and rising hospital costs affect the ACT Budget later in the projection period and are somewhat offset by an assumption of lower expenditure in areas such as education;
  - the SIGR model assumes that as economic growth slows, government spending also slows as expenditure decisions are shaped by fiscal capacity - these influences are stronger at the State and Territory level than at the Federal level; and
  - the SIGR model assumes that Federal grants are tied to population and CPI growth, both of which are invariant to ageing – this limits the downside for a large portion of the ACT Budget.

### Revenue

36. Although the average annual impact on ACT revenue over the 40-year projection period is expected to be relatively small, some significant revenue pressures are expected to emerge over the next two decades where annual declines in total revenue of up to –0.5 per cent are projected (see chart).
37. Between 2007-08 and 2011-12, total revenue is expected to fall by 0.5 per cent per annum, driven by a 1.2 per cent fall in total taxes and smaller declines in grants and subsidies and other revenue. Between 2012-13 and 2021-22, declines in taxes, grants and subsidies will be partially offset by a small increase in other revenue, leading to an average annual decline in total revenue of around 0.3 per cent.

Figure 6: The impacts of ageing on ACT revenue

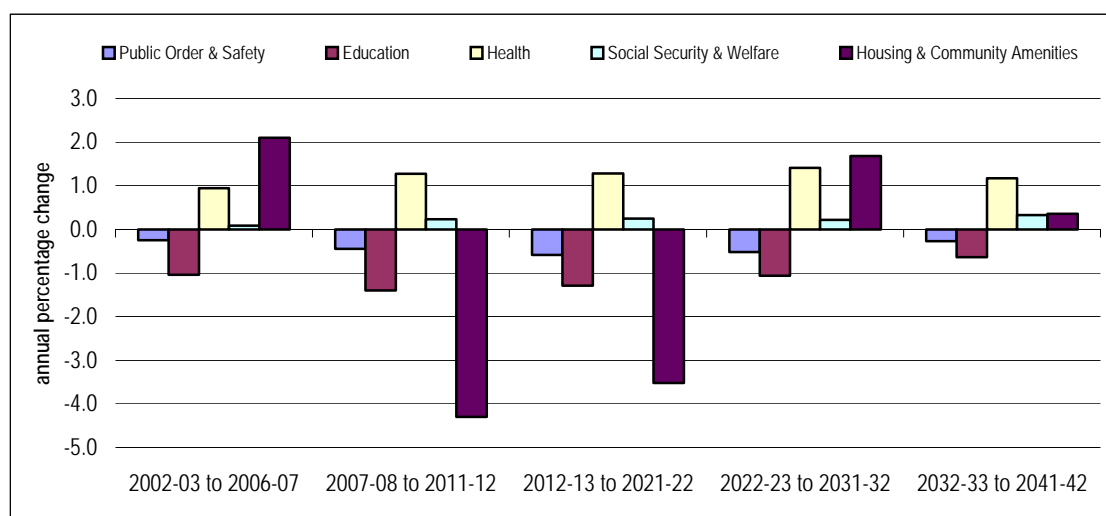


Source: ACT Treasury estimates – SIGR Model.

## Expenditure

38. While the impact of ageing on the revenue side of the ACT Budget is expected to be relatively small across the projection period, the impact on the expenditure side is far more pronounced. Total expenses in the 40 years to 2042 are expected to increase by an average of almost 1 per cent per annum.
39. As would be expected, the results across Budget portfolios vary markedly (see chart). Some of the key portfolios are considered in greater detail in the following sections.

Figure 7: The impacts of ageing on ACT portfolio expenditure



Source: ACT Treasury estimates – SIGR Model.

## Health

40. Within the ACT health system, a range of pressures is already being experienced as a consequence of population ageing. These include increased separation rates and length of stay for the aged, excess demand for community care packages, and excess demand for community health and ancillary support services.
41. As the rate of ageing of the ACT population profile increases, there will be greater upward pressure on health costs, as a significant proportion of health expenditure is made on individuals in the last years of their lives. Consequently, although it might be expected that the health status and life expectancy of the ACT population will increase with time, the simple fact that there will be greater numbers of people nearing the end of their lives will mean that the total cost of caring for these individuals will increase.
42. In the 40 years to 2042, ageing of the ACT population is expected to increase costs in the health portfolio by an annual average of 1.2 per cent – the largest increase of any portfolio. A breakdown of projected cost increases within the health portfolio is shown in table 3.

**Table 3: The impacts of ageing on the ACT Health portfolio**

	2002-03 to 2006-07	2007-08 to 2011-12	2012-13 to 2021-22	2022-23 to 2031-32	2032-33 to 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
Nursing home type patient care	3.4	4.3	3.2	4.1	3.2	3.6
Other acute care institutions	1.1	1.5	1.6	1.7	1.4	1.5
Community health services	0.4	0.5	0.5	0.5	0.4	0.5
Public health services	0.9	1.1	0.9	0.9	0.8	0.9
Pharmaceuticals, medical aids and appliances	0.6	0.7	0.6	0.4	0.4	0.5
Other health	0.6	0.9	1.0	1.1	1.0	1.0
Total expenses	0.9	1.3	1.3	1.4	1.2	1.2

*Source:* ACT Treasury estimates – SIGR Model.

43. Apart from an increase in demand for services, an ageing population will also change the nature of the services being required. Over time, there is likely to be less activity associated with birthing and paediatrics, and increased activity in those service areas predominantly used by older people. These include:
- renal failure;
  - rehabilitation;
  - orthopaedics;
  - cancer/oncology; and
  - respiratory medicine.
44. An ageing population will also exert additional pressure on the availability of healthcare professionals, an area where skill shortages are already apparent in a number of key roles. An ageing population will require greater numbers of GPs and community care-based nurses and greater numbers of allied health workers. Demand is also likely to increase for Practice Nurses and Nurse Practitioners to substitute for and complement the work of GPs.
45. Chronic health problems have become, and will remain, the dominant focus of the health system for the foreseeable future. These chronic health problems are frequently complex to manage and require close linkages between home, primary care services, hospital and nursing home care. Unless community and other primary care measures are enhanced, the length of hospital stays will continue to increase,<sup>4</sup> placing further pressure on both the availability of hospital beds and the availability of healthcare professionals.

#### *Cross-border utilisation of ACT health services*

46. The projections detailed in Table 3 above are, in all likelihood, an underestimation of the true fiscal impact of ageing on the ACT health sector as they fail to account for the impact of the population of the surrounding areas. Population growth and ageing in the region surrounding the ACT will exert

<sup>4</sup> The most recent data from AIHW (2004) show that average length of stay in hospital increases with age. In 2001-02, average length of stay for males ranged from 3.7 days for 65-74 year olds, up to 8.1 days for those 85 years and over. Similar results were recorded for females.

additional pressure on the ACT budget through cross-border use of ACT health services.<sup>5</sup>

47. The population of the region surrounding the ACT has grown at a faster rate than Canberra in recent years and significantly faster than most of the rest of NSW. This relatively stronger growth has led to steady increases in cross-border utilisation of ACT health services by non-ACT residents, so much so, that by 2000-01 NSW residents accounted for 25 per cent of total ACT hospital separations.
48. Patient episodes in the Canberra Hospital for NSW residents increased from 23 per cent in 1995-96 to 26 per cent in 2000-01. Occupied Bed Days (OBDs) for NSW residents showed a similar trend, increasing from 26 per cent to 29 per cent over the same period. Between 1995-96 and 2000-01, the patient episodes for NSW residents increased by 22 per cent compared to an increase of only 4 per cent for ACT resident patient episodes.

## Education

49. A widely held view is that as a population ages, the funding requirements for education will fall as the number of school age children falls – this assumption is reflected in the projections. However, it is highly likely that as the ACT labour force contracts through ageing, education requirements may in fact remain the same, or possibly increase, in a bid to ensure current and future workers become relatively more productive.

**Table 4: The impacts of ageing on the ACT Education portfolio**

	2002-03 - 2006-07	2007-08 - 2011-12	2012-13 - 2021-22	2022-23 - 2031-32	2032-33 - 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
Primary and secondary education	-1.2	-1.5	-1.3	-1.1	-0.7	-1.1
Tertiary education	-0.6	-0.8	-1.0	-0.9	-0.6	-0.8
Pre-school education	-1.1	-1.5	-1.5	-1.2	-0.7	-1.2
Other education	-0.5	-1.2	-1.6	-1.1	-0.6	-1.1
Total expenses	-1.0	-1.4	-1.3	-1.1	-0.6	-1.1

Source: ACT Treasury estimates – SIGR Model.

50. The number of school age persons aged 5 to 18 living in the ACT is projected to decrease from 63,300 in 2002 to about 50,900 in 2042. The number of primary school age persons living in the ACT is projected to decrease from 30,700 to 24,500, while the number of secondary school age individuals is projected to fall from 32,500 in 2002 to 26,300 in 2042. These changes in ACT school age demographics will have significant implications for planning and infrastructure relating to education services in the Territory.

## Public Order and Safety

51. The modelling of expenditure patterns for the ACT Public Order and Safety portfolio is premised on the notion that the incidence of incarceration for those

<sup>5</sup> ACT health services utilised by non-residents include, for example, inpatient (hospital) services, non-inpatient and community health services (e.g., drug and rehabilitation services), and population and preventative health services (e.g., cancer screening and organised immunisation).

under 30 is significantly higher than for those aged over 55. Consequently, as the Territory population gets older, it is expected that the cost of maintaining law and order in the Territory will decline (table 5).

**Table 5: The impacts of ageing on the ACT Public Order and Safety portfolio**

	2002-03 - 2006-07	2007-08 - 2011-12	2012-13 - 2021-22	2022-23 - 2031-32	2032-33 - 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
Police services	-0.2	-0.3	-0.4	-0.3	-0.1	-0.3
Fire protection services	-0.0	-0.1	-0.2	-0.1	0.0	-0.1
Law courts and legal services	-0.3	-0.7	-0.9	-0.9	-0.6	-0.7
Juvenile corrective services	-0.9	-1.4	-1.4	-1.1	-0.6	-1.1
Prisons and other corrective services	-0.3	-0.6	-0.9	-0.9	-0.6	-0.7
Other public order and safety	-0.1	-0.3	-0.8	-0.8	-0.3	-0.5
Total expenses	-0.3	-0.5	-0.6	-0.5	-0.3	-0.4

Source: ACT Treasury estimates – SIGR Model.

### Housing and Community Amenities

52. The total number of households in the ACT is projected to increase by 50,000 (41 per cent) over the forty years to 2042. This strong growth in the number of households reflects strong population growth in the older age groups where household size is generally small. The housing mix required to service these growing numbers will depend on the nature of the changing demand for housing and housing choice that, in turn, will be driven by factors such as family types, social change, economic and financial considerations, land availability, spatial availability and preferences.
53. Public expenditure within the housing and community amenities portfolio is forecast to decline across the projection period, driven primarily by reductions in expenditure on housing and community development (see table 6). These results are based on the assumption that the growing number of elderly residents in the ACT population will gradually move from public housing to hostels and nursing homes. Other things being equal, this implies a shift in costs from the ACT to the Commonwealth.

**Table 6: The impacts of ageing on the ACT Housing and Community Amenities portfolio**

	2002-03 - 2006-07	2007-08 - 2011-12	2012-13 - 2021-22	2022-23 - 2031-32	2032-33 - 2041-42	40 years to 2042
	<i>Percentage change per annum</i>					
Housing & community development	-0.1	-0.7	-0.5	-0.4	-0.0	-0.3
Water supply	-0.0	-0.1	-0.2	-0.2	-0.0	-0.1
Sanitation & environmental protection	-0.0	-0.1	-0.2	-0.2	-0.0	-0.1
Total expenses	-0.1	-0.7	-0.5	-0.4	-0.0	-0.3

Source: ACT Treasury estimates – SIGR Model.

### *Residential aged accommodation in the ACT – demand and supply*

54. As noted above, demand for residential aged accommodation is expected to increase significantly over the next 40 years. Under current arrangements, the supply of aged care accommodation is based on the Commonwealth's funding allocation of 108 places per 1,000 of the 70+ population. Using this benchmark,



the Territory will be expected to have facilities catering for around an additional 4,850 residential aged care places by 2042.

55. Determining whether the current allocation will be sufficient to meet demand in the coming decades is difficult, as it requires assumptions regarding the choice individuals may make in staying at home, and the levels of family support available. However, using current waiting lists as a proxy for unmet demand, the existing formula is failing to meet current demand and, on this basis, is unlikely to meet future demand.
56. These estimates do not incorporate growth in the population of the surrounding region. As is the case with health services, population growth and ageing in the region surrounding the ACT will exert additional pressure through cross-border use of aged related services, where it is estimated that around 15 per cent of residents in ACT aged care beds have a postcode from outside the ACT.

#### **IV. OPPORTUNITIES AND BENEFITS FROM AGEING**

57. Although an ageing population is almost certain to lead to fiscal and economic pressures along the lines of those described earlier in this submission, it should also bring with it a number of significant, and often overlooked, opportunities and benefits. Key amongst these is an increased level of family and community involvement, and a ready supply of well-educated, skilled and experienced labour.

##### **A Deepening Pool of Labour**

58. The economic and fiscal impacts of ageing detailed previously in this submission are predicated on the assumption that current labour force participation rates will remain constant across the projection period. However, as life expectancies continue to increase, many of the workers contemplating retirement will almost certainly struggle to fund their expected standard of living across their remaining years. It is therefore highly likely that, given the right incentives, many older people will choose to go on working for longer.<sup>6</sup>
59. Currently one of the biggest deterrents to older people delaying their retirement is the attitude of employers, with many companies wishing to project a youthful and exuberant image. This preference will almost certainly change as the size of the labour force begins to decline and employers find it increasingly difficult to fill vacancies.<sup>7</sup>
60. Mature age workers today have a greater capacity than previous generations to work beyond a retirement age of 60-65 years, as they are healthier and better educated and the nature of the work is physically less demanding.<sup>8</sup> Apart from the financial benefits of delayed retirement, older people also experience significant health benefits and feelings of wellbeing from continued working and

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<sup>6</sup> Judith Healy, *The Benefits of an Ageing Population*, Melbourne, 2004, [http://www.tai.org.au/Publications\\_Files/DP\\_Files/DP63%20summary.pdf](http://www.tai.org.au/Publications_Files/DP_Files/DP63%20summary.pdf) accessed 6 August

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

economic participation. These benefits then flow through to a healthier and wealthier older population.<sup>9</sup>

## **Family and Community Involvement**

61. Volunteering is likely to be one of several areas in the community that will benefit from an ageing population in the ACT. The Territory currently has one of the highest rates of volunteering among the States and Territories,<sup>10</sup> and the rates of volunteering among the growing number of retirees are expected to continue to grow over the next two decades.<sup>11</sup>
62. Although the national accounts fail to recognise the value of volunteering to the community, it is estimated that volunteering contributes around \$42 billion a year to the national economy.<sup>12</sup> Apart from the significant benefit to the community, older Australians undertaking volunteer work also derive benefits at a personal level through the satisfaction of undertaking the activity.

## **V. KEY ASSUMPTIONS**

63. Modelling of the national economy and budget over a 40-year period has considerable complications, particularly in relation to the underlying assumptions. For example, an assumption on labour productivity of the past decade (2%) being maintained over the projection period indicates considerable fiscal capacity to meet the impacts of ageing. On the other hand, it is reasonable to assume that the gains of the past decade will not be maintained over the next 40 years. Assuming somewhat lower productivity, but consistent with historical levels (1.6%), highlights significant fiscal pressures, due to decreased output.
64. Further complications arise due to the Federal structure, and the associated financial arrangements. For example, State budgets will be heavily influenced by the level of Commonwealth funding for Specific Purpose Payments (SPPs). If SPPs are only maintained in real terms (the only position the Commonwealth has agreed to), and not adjusted for growth in demand for services, State budgets will have significantly higher deficits. In all likelihood, this scenario will not hold, as has been the case with some of the SPPs recently.
65. Even assuming existing policy settings, it is difficult to make assumptions on specific advances in technology (for example, whether and when a cure for Alzheimer's disease will be developed, or whether its incidence could be reduced) and its flow on effects.
66. In summary there will be different views and debate on assumptions across the projection period, notwithstanding the fact that in reality not all of the assumptions will eventuate.

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<sup>9</sup> Council of the Ageing (Australia).

<sup>10</sup> ABS Cat No. 4441.0

<sup>11</sup> Wilkinson and Bittman, *Volunteering: The Human Face of Democracy*, Sydney, 2002, <http://www.sprc.unsw.edu.au/dp/DP114.pdf> accessed 12 August 2004.

<sup>12</sup> Ironmonger, Measuring volunteering in economic terms. *Volunteers and volunteering*, Warbuton and M. Oppenheimer. Australia, 2000.

67. Earlier sections of this report have already identified the sensitivity of the assumptions relating to demographic change and labour force participation with respect to the long-term fiscal and economic projections. The following section will touch on a number of key assumptions relating to demand for services and expenditure.

### **Cost of Health Care**

68. The service area expected to be most significantly impacted is health care. Over a 40-year period, it is difficult to predict the behaviour of the population, the advances in technology, and incidence of chronic illness, all of which mutually interact and jointly impact on health care costs.
69. The modelling for this submission assumes growth in health expenditure at a rate of 7 per cent per annum, comprising 3 per cent for price and wage growth, 1.9 per cent for demographic factors, and 2.1 per cent for non-demographic factors. The relevance of these rates, however, needs to be put in perspective.
70. There is a generally held view that as life expectancy continues to increase, people will live longer and healthier, thereby reducing or curtailing the growth in health care costs. This view, however, needs to be put in perspective of a number of facts and emerging trends, including:
- a possible concurrent increase in unhealthy life years, along with the increase in healthy life years, resulting in increased demand for acute care;
  - a strong impact of advances in technology on the utilisation rates;
  - a trend of increasing hospital utilisation rates by the aged; and
  - the volume effect of the cost of care in the last few years.
71. While there is limited information available in the Australian context on whether all the gains in life expectancy have been healthy, there are indications from research overseas that this may not be the case.<sup>13</sup> For example, between 1981 and 1995, life expectancy in Great Britain for men aged 65 increased by 1.7 years. The healthy life years, however, increased at a slower rate by 1.4 years, with the number of years a man aged 65 could expect to live in poor health increasing from 3.0 to 3.4 years. Similar trends were reported for women. Notwithstanding the increase in healthy life years, any increase in unhealthy life years will result in higher demand for health services.
72. As noted by the Commission, advances in technology, besides impacting on the unit costs, will have an impact on utilisation of health services. A trend increase in hospital separation rates, particularly for the aged groups, is already apparent.
73. Over the last four years, with the exception of three age groups (5-14, 15-24 and 35-44 years), the Average Length of Stay (ALOS) has been generally decreasing at around 4% per annum. The separation rates (per thousand population) for all age groups to 44 years show a trend decrease, while for all age groups above 45

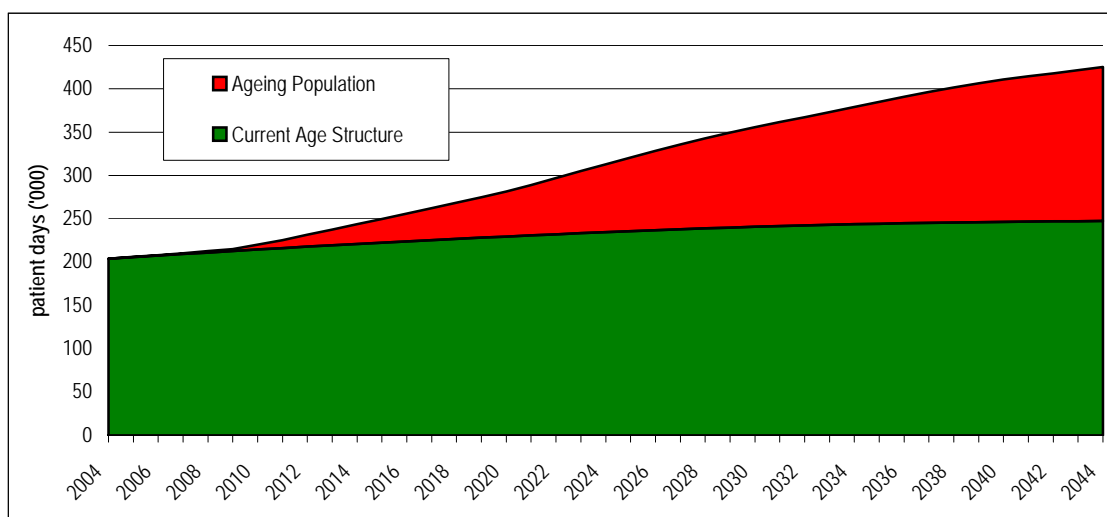
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<sup>13</sup> Kelly and Baker, *Healthy life expectancy in Great Britain, 1980-96, and its use as an indicator in United Kingdom Government strategies*, Health Statistics Quarterly, London, 2000, [http://www.statistics.gov.uk/downloads/theme\\_health/HSQ7Book.pdf](http://www.statistics.gov.uk/downloads/theme_health/HSQ7Book.pdf) accessed 13 September 2004.

years there is a clear trend increase. The separation rate has the highest increase for people aged 75+, at around 7% per annum.<sup>14</sup>

74. In summary, while there has been a trend decrease in ALOS, it only partially offsets the increased utilisation. Long-term projections of ACT public hospital patient days per year suggest significant increases are likely over the next 40 years. The following chart highlights the impact of the change in age structure on the demand for public hospital patient days (annually).<sup>15</sup>

Figure 8: Projected number of ACT public hospital patient days per year



Source: ACT Treasury estimates.

75. Another important issue is the cost of care in the last few years of life. Although life expectancy, general health and technology should continue to improve with time, it is difficult to envisage any significant declines in the cost of care in the last few years of life over the coming decades. Even if the per capita cost of care were to stabilise over time, the sheer increase in the number of individuals nearing the end of their life would ensure that absolute costs would rise.
76. National data show that average health expenditure per person rises sharply with advancing age. In 2000-01, average per person health expenditure for 65-74 year olds was \$5,509, for 75-84 year olds it was \$8,895, and for those aged 85+, per person expenditure was \$15,690. This compares to a figure of \$1,807 per person for those aged less than 65 years<sup>16</sup>.

<sup>14</sup> Australian Institute of Health and Welfare, *Australian Hospital Statistics*, Canberra, 1999-2000 to 2002-03.

<sup>15</sup> For the purpose of modelling, the age specific trend changes in ALOS and separation rates have been used. As these trends cannot continue indefinitely, the rates of increase/decrease have been projected forward for the first four years of the projection period. The age specific ALOS and separation rates are then held constant for the remainder of the projection period.

<sup>16</sup> Australian Institute of Health and Welfare, *Australia's Health 2004*, Canberra, 2004, <http://www.aihw.gov.au/publications/aus/ah04/ah04.pdf> accessed 9 September 2004.

## Age specific disability rates

77. Long-term variations in age specific disability rates will have a significant impact on the budgetary cost of ageing, particularly within the health sector. Currently, there appears to be some support for the view that disability rates will decline in the coming years, based on evidence of declining age specific disability rates in the United States and a number of European countries.<sup>17</sup> Despite these reports, this view does not seem to be supported by recently published Australian data.
78. For almost two decades, there has been a consistent increase in the overall reported rate of disability in Australia, driven primarily by the ageing of the population aged 65 years and over. In the 17 years between 1981 and 1998, the disability rates for people aged 65 and over increased from 43 per cent to over 50 per cent. In the five years to 1998, the rate of severe or profound restrictions for people aged 65 and over increased from 17 per cent to 20 per cent.<sup>18</sup> While more recent data show these rates have remained stable over the five years to 2003, there is little to no evidence to support ongoing declines over the next 40 years.
79. The Australian results are not inconsistent with research in Great Britain which has indicated that around 60 per cent of the increase in life expectancy for men aged 65 was with a limiting, long standing illness (disability).<sup>19</sup>

## VI. CONCLUSION

80. Over the next 40 years, an ageing population is expected to exert significant economic and fiscal pressure at both the state and territory level and nationally. This submission seeks to highlight, and quantify, a number of key areas where ageing is expected to impact, suggesting:
- there will be pressure on ACT GSP and national output;
  - there will be pressure on the ACT and Federal Budgets;
  - there will be pressure on the Commonwealth to increase the migrant intake;
  - there may be competition for migrants by States and Territories;
  - there may be pressure arising from the out-migration of skilled people to other parts of Australia and overseas; and
  - there may be surplus State and Territory assets, such as schools.
81. Within the context of these results, a response to ageing must be considered in regional and national terms rather than simply at the jurisdictional level. The Productivity Commission study is an important first step in quantifying the effects of ageing at all levels of government. The next step should be a coordinated national response.

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<sup>17</sup> Waidmann and Manton, *Measuring Trends in Disability Among the Elderly: An International Review*, United States, 2000, [http://cds.duke.edu/publications/DocLib/cds\\_1127\\_wp.pdf](http://cds.duke.edu/publications/DocLib/cds_1127_wp.pdf) accessed 9 September 2004.

<sup>18</sup> Australian Institute of Health and Welfare, *Australia's Health 2004*.

<sup>19</sup> Kelly and Baker, *Healthy life expectancy in Great Britain*.

## APPENDIX A – ACT DEMOGRAPHICS

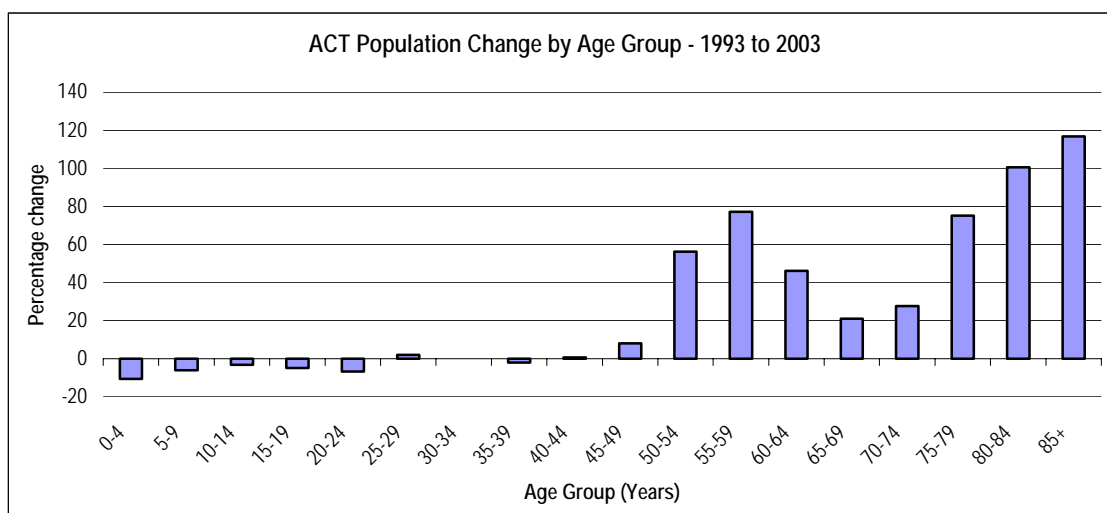
### ACT Population – Historical

Although the current ACT population profile is somewhat younger than the national average, population growth in the ACT in recent times has been slower than that at the national level while the rate of ageing has been faster.

Over the last ten years, the ACT population has grown at an average annual rate of 0.8 per cent, just below the national growth rate of 1.2 per cent. During this period, growth from natural increase has been the major driver of population growth in the ACT.

Net interstate migration has varied widely over the last decade, but has generally been negative. The greatest net migration out of the ACT occurred in the 12 months to June 1997.

In average annual terms, all of the growth in the ACT over the last ten years has occurred in the 15-64 and 65+ age groups, which grew by 0.9 and 3.9 per cent respectively. The 0-14 age group experienced a decline in average annual growth of -0.7 per cent. Over the same period, the number of individuals in the population aged 85+ more than doubled, growing by an average of 8.1 per cent per year.

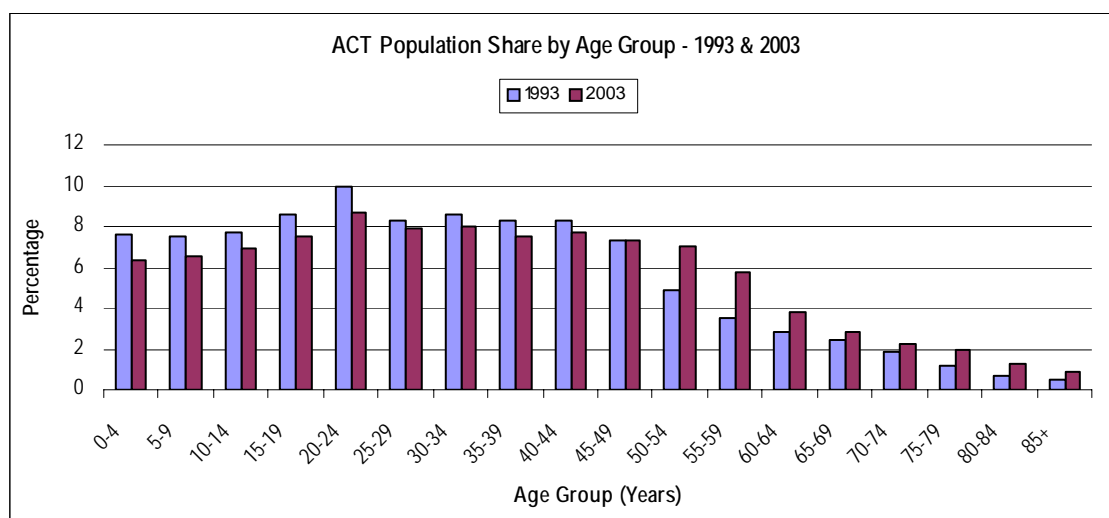


Source: ABS Cat No. 3201.0.

The current population profile in the ACT, measured as the median age, is significantly younger than the national average. However, the median age of the ACT population has been steadily growing, and at a faster rate than the national population. At June 1993, the median age in the ACT was 30.2 versus a national median age of 33.0. By June 2003, the ACT median age had grown to 33.8 while the national median age reached 36.1.

The steady increase in the ACT median age over the last ten years is highlighted in the changing shares of the various age groups. At June 1993, the proportion of the ACT population aged 0-14 was 22.7 per cent. However, by June 2003 this had fallen to 19.6 per cent. Over the same period, the share of ACT individuals in the 15-64 age

group remained almost unchanged, increasing marginally from 70.2 to 70.5 per cent, while the proportion of people aged 65+ increased significantly, from 6.6 per cent to 9.0 per cent.



Source: ABS Cat No. 3201.0.

## ACT Population – Projections

The following ACT population projections are for the period 2002-2042. The projections are the official ACT Government series and have been prepared by Demographics ACT, the ACT Government agency responsible for demographic analyses and population forecasting.

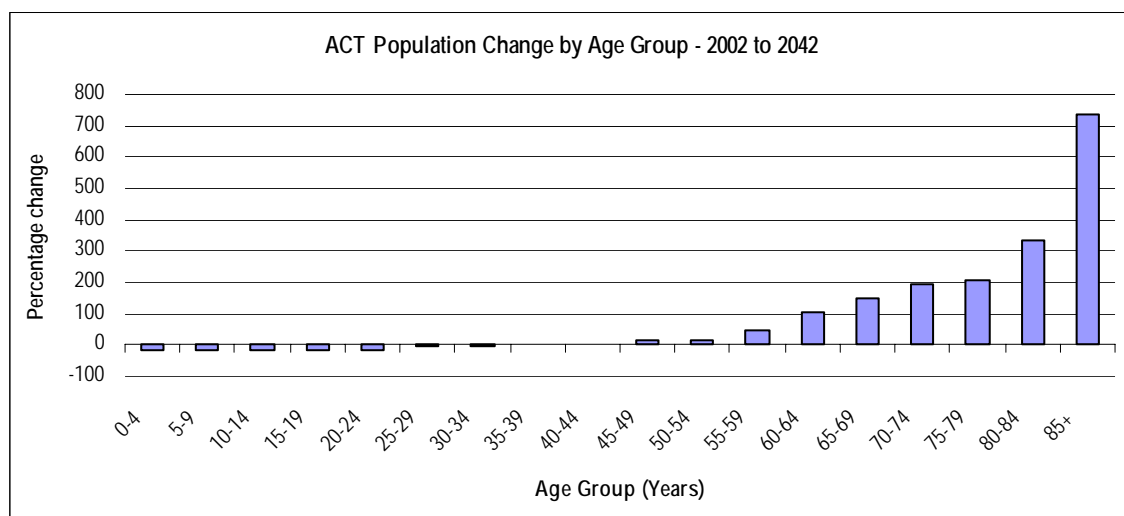
The assumptions underpinning the projections have been determined through consultation and discussion with ACT Government officers and the ABS, and include:

- an annual increase in net migration of 500 persons per year;
- a fall in the fertility rate from 1.5 to 1.4; and
- ongoing improvement in mortality rates.

The ACT projections fall between the Series B and Series C projections produced by the ABS and incorporate the latest demographic trends from the population census released by the ABS in 2003. The national data detailed below are the official ABS projections.

Over the 40 years to 2042, the ACT population is projected to grow by around 75,000 people to a total of almost 397,000. This represents an average annual growth rate of 0.5 per cent per year compared with the current national forecast of 0.7 per cent.

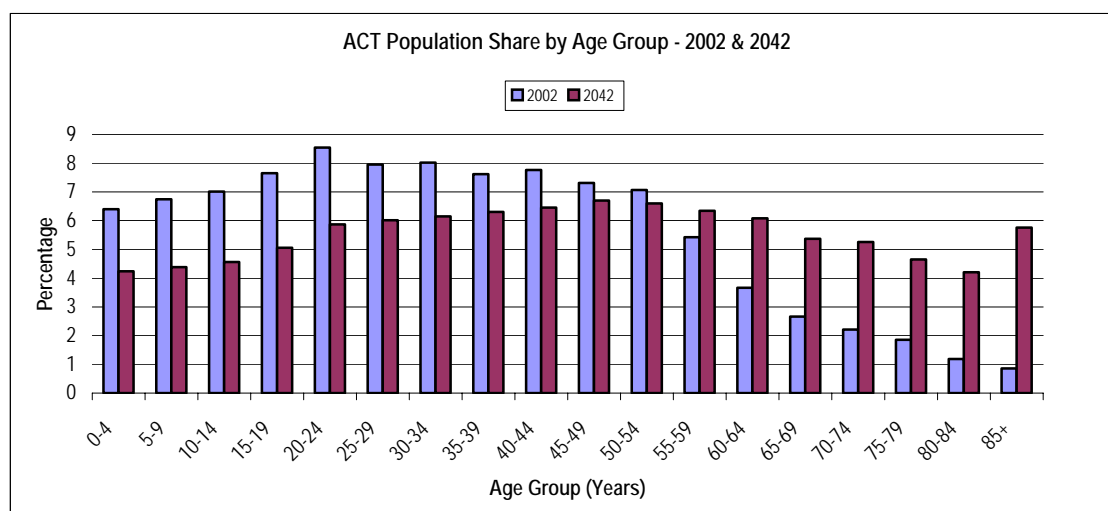
Almost all of the growth in the ACT population is set to occur in the 65+ age group, with expectations of 3.2 per cent average growth per annum over the projection period. Some growth is expected in the 15-64 age group (0.2 per cent) while a small reduction is predicted in the 0-14 cohort (-0.5 per cent).



Source: Demographics ACT estimates.

The median age of the ACT population is expected to continue to rise, from 33.5 years in 2002 to 45.7 years in 2042. Despite this significant increase, the ACT is still expected to have a marginally younger population than Australia as a whole.

The strong growth in the ACT median age to 2042 is reflected in the changing shares of the various age groups within the population. By 2042, the 64+ age group is expected to account for 25.2 per cent of the ACT population, up from 8.8 per cent at the beginning of the projection period. The shares of the remaining cohorts are predicted to fall over the projection period, with the 0-14 cohort down from 20.2 to 13.2 per cent, and the 15-64 age group declining from 71.0 to 61.6 per cent of the ACT population.



Source: Demographics ACT estimates.