



Demographic Change in Tasmania: challenges and opportunities

Issues Paper

October 2007

This Issues Paper has been prepared by the Demographic Change Advisory Council

The Council is a Tasmanian Government initiative, which involves the Local Government Association of Tasmania, Tasmanian Chamber of Commerce and Industry, Tasmanian Council of Social Service, Unions Tasmania and the University of Tasmania

***Demographic Change
in Tasmania:
challenges and opportunities***

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October 2007

DEMOGRAPHIC CHANGE ADVISORY COUNCIL

Demographic Change in Tasmania: *challenges and opportunities*

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FOREWORD



Demographic change will present significant challenges and opportunities for Tasmania. It is an issue that all Tasmanians should be aware of and understand.

The 2006 Census revealed that Tasmania's population is now the oldest of all states and territories. Tasmania is also expected to age more rapidly than any other state or territory.

Future changes to our population size and structure will present a host of economic, social and fiscal challenges and opportunities for the Tasmanian community. Governments, businesses, non-government sector organisations and individuals all need to embrace these issues and work together to plan for our future.

As part of the 2006–07 Budget, the Government established the Demographic Change Advisory Council. The Council brings together all sectors of the community to plan for Tasmania's future demographic change. The role of the Council is to conduct research and analysis, lead and influence public debate and share information with the Tasmanian community on demographic change issues.

In March 2007, the Council released a Discussion Paper on demographic change in Tasmania. Thirty-eight written submissions were received and face-to-face consultations with key stakeholders were also held. This provided valuable input on some of the emerging social, economic and fiscal issues that Tasmania can expect in coming decades.

This Issues Paper has been prepared by the Council in response to the community and stakeholder feedback on the Discussion Paper. The Issues Paper is intended to provide a comprehensive account of the major challenges and opportunities surrounding population ageing in Tasmania.

The Council's next step is to prepare a report on possible strategies which can address the challenges and capture the opportunities of demographic change that are outlined in this paper. The Council will provide an opportunity for the community to propose strategies as part of this process.

I encourage your participation on this vital issue for Tasmania's future and invite you to seek further information from the Council's website at www.dcac.tas.gov.au.

A handwritten signature in black ink, which appears to read 'Michael Aird'.

Michael Aird

Treasurer and Chair of the Demographic Change Advisory Council

Demographic Change Advisory Council

The Demographic Change Advisory Council is responsible for identifying and assessing demographic change issues that affect Tasmania, and in particular to:

- research and analyse information and trends on demographic change issues;
- lead and influence the debate on demographic change issues and the possible strategies available to address these issues; and
- facilitate the sharing of information and research across the relevant stakeholder groups within Tasmania.

The Council comprises the:

- Treasurer (Chair);
- Minister for Education;
- Minister for Health and Human Services;
- President of the Tasmanian Chamber of Commerce and Industry;
- President of Tasmanian Council of Social Service Inc.;
- President of Unions Tasmania;
- President of the Local Government Association of Tasmania; and the
- Vice-Chancellor of the University of Tasmania.

The Regional Director of the Australian Bureau of Statistics (ABS), who is also the Tasmanian Government Statistician, is an observer on the Council.

This paper has been prepared after consulting with key stakeholders and the community more generally. All Tasmanians were invited to comment on a Discussion Paper, issued by the Council in March 2007. Written submissions were received from 38 organisations and individuals. In addition, several face-to-face consultations were conducted to gather further information and clarify potential challenges. Appendix B provides a list of the stakeholder organisations and individuals that made submissions or were consulted with.

While in some sections of the Paper it may appear that certain policies or strategies are being promoted, this is not the intent of the Paper. The Paper has sought, however, to include the issues raised through the consultation process.

The Council's next task is to develop a Strategies Paper that examines the key strategies that can be put in place to take advantage of the opportunities and address the challenges identified in this Paper.

The Council will provide an opportunity for stakeholders and the wider community to contribute to the development of strategies at a later date. However, the Council welcomes any comments on this Issues Paper, which can be provided by e-mail to the Council at contact@dcac.tas.gov.au or by mail to:

Executive Officer
Demographic Change Advisory Council
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More reports and information relating to demographic change, especially its potential impacts on Tasmania, can be found on the Council's website at www.dcac.tas.gov.au. Further information on the work of the Council can also be obtained by phoning the Executive Officer on 1800 116 735.

PURPOSE OF THE ISSUES PAPER

The Demographic Change Advisory Council has a work program that involves identifying the key issues that the Tasmanian community expects to face as its population ages and to assist in developing strategies to address these issues.

The purpose of this Issues Paper is to:

- raise awareness in the community about expected future trends in Tasmania's population, especially the rapid rate of ageing; and
- provide a comprehensive account of the main issues that Tasmania can expect to face arising from population ageing.

EXECUTIVE SUMMARY

Population ageing is not unique to Tasmania. Most developed countries already have high, and rising, proportions of their population aged 65 years and over. In the decades ahead, the age profile of Australia's population will catch up with most Organisation for Economic Co-operation and Development (OECD) nations.

In many respects Australia is particularly well placed to plan for and manage the economic and fiscal impacts of ageing. For example, the pension and superannuation arrangements in Australia ensure that households, and governments, are generally much better placed to fund retirement than in many other countries.

Tasmania's population is expected to age more rapidly than Australia as a whole. In future decades, the Tasmanian population could therefore have a higher age profile than many developed countries.

As the rate of ageing will be greatest in Tasmania, it will encounter many demographic change impacts before other states and territories. The sooner Tasmania understands and plans for the social, economic and fiscal impacts of ageing, the better prepared we will be to take advantage of opportunities and address the challenges.

The Tasmanian Government has established the Demographic Change Advisory Council to help Tasmania prepare for the future. The purpose of this report is to outline the key emerging issues that Tasmania can expect to face. This, in turn, will then allow the Council to examine how Tasmania can plan for the future.

Population Size and Structure

The size and structure of our population is constantly changing and this will continue over the next decades.

While the future is inherently unpredictable, it is certain that a combination of longer life spans and a decline in fertility rates will, over the long run, accelerate the ageing of Tasmania's population.

For example, over the next 20 years the proportion of Tasmanians under the age of 15 is projected to decline by approximately 14 per cent while the proportion of people aged 65 years and over could grow by almost 80 per cent.

In Tasmania today there are around 8 600 persons aged over 85 years. This number is projected to increase to 16 500 over the next 20 years, and to 32 800 over the following two decades.

Not only is the proportion of younger people in the population projected to decline, but so is the absolute number. For example, over the next ten years the number of primary school-aged children (those aged between 5 and 12 years) is projected to decline by around 480 each year, which is slightly more than two average-sized State primary schools.

Challenges and opportunities

An ageing population presents a number of challenges for the community, especially to the:

- economy – such as a smaller and ageing workforce, a declining labour force participation rate, and a potential mismatch between labour supply and demand;
- social structure – such as changes in the composition of households and in the demand for community services, particularly by more isolated and low income older Tasmanians; and
- fiscal situation for governments – with increasing pressure to provide more and better quality services while being constrained in their capacity to raise revenue (such as increasing taxes) to fund these services.

The Tasmanian community, including the business sector, individuals, community groups, welfare organisations and unions, as well as the State Government and councils, will need to be aware of, and prepare for, these challenges.

Tasmania's demographic changes may also provide many benefits and opportunities, such as:

- increased demand for industries which provide products and services for older people;
- new business opportunities arising from the changing spending patterns of the ageing Baby Boomers;
- initiatives and innovations in Tasmania, as the first state to experience the acceleration in population ageing (for example, the Australian Government could use Tasmania as a pilot location);

- an increased number of experienced people that may be available as mentors and advisors for businesses, governments, and non-government organisations;
- more potential volunteers for some activities as people enjoy a longer and healthier retirement;
- increased involvement by older people in clubs and other organisations;
- a decrease in involuntary unemployment;
- changing work practices that are more flexible and family/life friendly; and
- more informal care provided by older family members.

Many of the consequences of demographic change are hard to predict; some will be positive and others negative for different groups within the community. However, some changes are inevitable as Tasmania's population ages.

These changes will require governments and community organisations to review their priorities and adjust their activities, including, in most cases, how their services are delivered and funded. Businesses, too, will need to adapt to the changing environment and respond to the challenges and opportunities.

Governments, in particular, will need to adjust their behaviour over time to be able to fund the services that the community demands on a sustainable basis. However, it is not feasible to assume that this problem can be ignored for the next decade or so, or that future Tasmanian governments can simply increase taxes to meet the additional costs.

INTRODUCTION

Currently, the Tasmanian population is ageing at a faster rate than any other Australian state or territory, and now has the highest median¹ age of all states and territories. This reflects the very significant changes to Tasmania's population structure in recent decades.

Further major changes to Tasmania's population are expected in future decades, which present a number of challenges and opportunities to the community. These include changes in its size, average age (including those in the workforce), and in the number of people in different age groups (such as children and people entering the workforce). The term 'demographic change' encompasses all these changes.

An increasing rate of population ageing in future decades, due in part to improvements in living standards and life expectancy, will have gradual, but ultimately very significant, social and economic impacts on both individuals and society.

Australia and Tasmania are generally well placed to deal with population ageing, compared with many Organisation for Economic Co-operation and Development (OECD) countries due, in part, to the national retirement income policies adopted in recent decades. In particular, Tasmanian businesses, communities and governments have started to adapt to the major demographic changes that have occurred over recent decades.

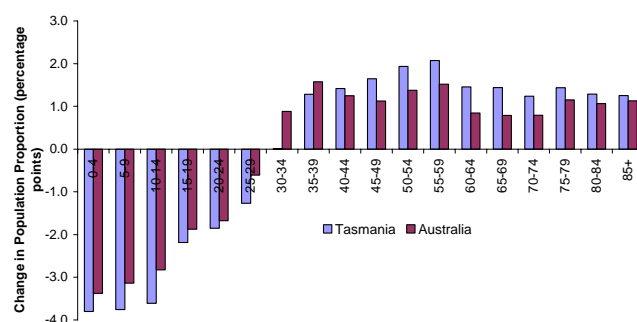
In light of the accelerating rate of ageing expected in future decades, it is particularly important for the Tasmanian community to be aware of the emerging issues and to prepare for those that are foreseeable and manageable.

How we became the oldest State

Tasmania's ageing population² is not a new phenomenon; declining birth rates and increasing life expectancy, and interstate migration since the early 1970s have already resulted in an increase in both the number and proportion of people in older age groups.

As illustrated by Figure 1, over the past 35 years the proportion of Tasmania's population below the age of 30 years has been decreasing at a faster rate than the national average. At the same time, the proportion of Tasmanians aged 40 years and over has increased at a faster rate than the national average.

FIGURE 1: CHANGE IN THE PROPORTION OF POPULATION IN EACH AGE GROUP: 1970–71 TO 2005–06



Source: ABS, *Population by Age and Sex, 2005–06*, Cat No 3201.0.

Natural population increase

Natural population increase³ has been a primary driver of population growth in Tasmania over the past several decades.

The natural increase has declined from around 4 600 per annum in 1972 to 2 400 in 2006. This has been caused by a combination of fewer births (from 7 900 to 6 300 per annum) and more deaths (from 3 200 to 3 900 per annum) over the period.

The total fertility rate⁴ and the total number of births in Tasmania have been decreasing since the 1960s. In 1971, the total fertility rate in Tasmania was 2.9 children per woman. The rate reduced to an average of 1.9 children per woman for the period 2000–04. However, total fertility rates and the number of births increased recently. For example, in 2005 the total fertility rate (2.1) and the number of total births (6 300) were higher than the previous five-year average (2000–2004).

¹ Median is the middle value, when all possible values are listed in order. Median is not the same as an average (or arithmetic mean).

² There are two main measures of population ageing. The first measure is the median age of the population. A young population is defined as having a median age of less than 20 years while an old population has a median age of 30 or more. The second measure is the proportion of the population over a specified age, such as 60 or 65 years.

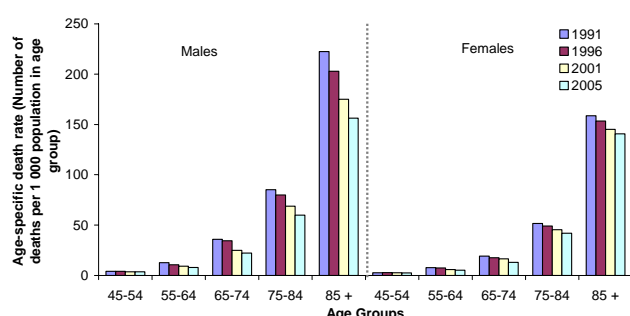
³ The component of population growth resulting from the number of births exceeding the number of deaths in a given period is defined as the natural increase.

⁴ The total fertility rate represents the number of children a woman would bear during her lifetime if she experienced the current age-specific fertility rates at each age of her reproductive life.

Age-specific death rates⁵ in Tasmania have been declining across all age groups for both males and females. Figure 2 shows that over the period from 1991 to 2005, the most noticeable decline in age-specific death rates was for males aged 85 years and over, contributing to the increase in life expectancy for males over the past 10 years.

In Tasmania in 1991, life expectancy at birth was 79.6 years for females and 73.1 years for males, with a difference of 6.5 years. By 2005, life expectancy at birth for females was 82.1 years and 77.2 years for males, with the difference reduced to 4.9 years.

FIGURE 2: AGE-SPECIFIC DEATH RATES FOR TASMANIA



Sources: ABS, *Demography Tasmania*, Cat No 3311.6 and ABS, *Deaths, Australia*, Cat No 3302.0.

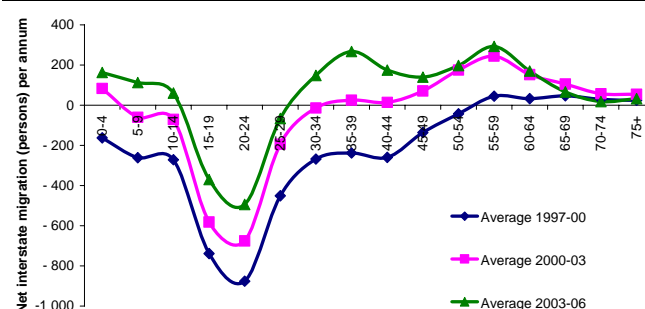
Net interstate migration

Each year, thousands of people move between Australian states and territories. This interstate migration has played a significant role in both the growth and ageing of Tasmania's population.

Over the past few years, while the overall number of arrivals to Tasmania has been higher than in the previous decade, the increase has been those in the older age groups. The number of interstate departures has remained relatively steady over the past decade, but continues to be characterised by a high proportion of people in the 15–29 age group.

For the past 20 years, the greatest losses to net interstate migration have been in the age group of 15–29 years. Net gains from interstate migration have traditionally only occurred in the older age groups (Figure 3). Even during periods of relatively strong population growth (ie 2002–03, 2003–04, and 2004–05) Tasmania experienced net interstate migration losses of young people aged between 15 and 29 years.

FIGURE 3: NET INTERSTATE MIGRATION BY AGE GROUP, TASMANIA



Source: ABS, *Migration, Australia*, Cat No 3412.0.

Substantial immigration of younger people may reduce the extent of population ageing. However, in the past, migration has tended to increase Tasmania's ageing as the median age of migrants has been higher than of the general population.

Population Projections

While the future is inherently unpredictable, it is certain that a combination of lower fertility rates and longer life spans will lead to an increase in the average age of Tasmania's population.

The structure of Tasmania's population is also expected to change significantly over the next few decades.

Predicting future population levels and trends with a high degree of accuracy is impossible, especially for more than two decades ahead. It is particularly difficult to allow for external factors that can have a significant impact on migration flows, such as the potential impact of climate change and increased risks of water shortages in some mainland states. However, the current trend is unlikely to change quickly (ie within the next decade).

The Australian Bureau of Statistics (ABS) produces over 50 population projections for Tasmania. Very different results are obtained, depending on assumptions made about fertility, life expectancy and the level of net interstate and overseas migration. These projections are therefore not forecasts of Tasmania's future population as no one projection is considered to be more likely to occur than any other.

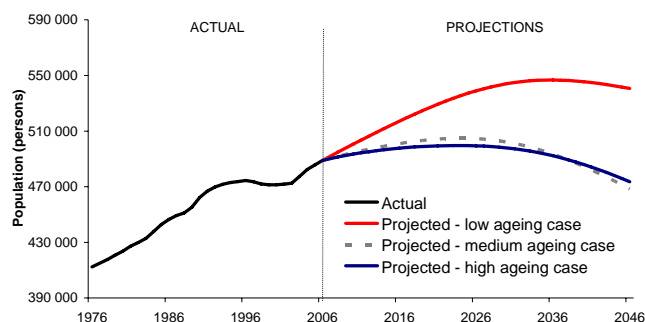
For the purpose of simplicity, this Issues Paper focuses on a medium ageing case, a modified version of ABS population projection Series B produced in 2005. Appendix A provides further information.

⁵ This refers to number of deaths during the calendar year per 1 000 of the population of that age.

Tasmania's current population is the largest that it has ever been, at around 492 700, as at March 2007.⁶

Most ABS population projections suggest that Tasmania's total population will continue growing until between 2015 and 2025. Figure 4 shows three plausible projections.

FIGURE 4: TASMANIA'S POPULATION - ACTUAL AND PROJECTED⁷



Sources: ABS, *Population by Age and Sex, States and Territories Cat No 3201.0* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

In all three projections in Figure 4, the proportion of older Tasmanians grows rapidly (particularly females) while the proportion of young people falls.

Under the medium ageing case, over the next 20 years the proportion of people under 15 is projected to decline by approximately 14 per cent. By contrast, the proportion of people aged 65 years and over grows by almost 80 per cent.⁸

Figure 5 shows that, compared with recent decades, the share of the population aged under 15 years is projected to decline at a diminishing rate while for those aged 65 years and over, the share increases at a faster rate.

According to these estimates, over the 70-year period from 1976 to 2046 the proportion of Tasmanians under the age of 15 years decreases from 28 per cent to 15 per cent. Two-thirds of this decline has already occurred.

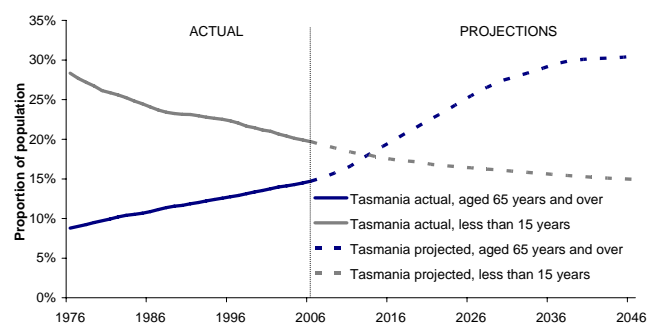
⁶ Latest available data.

⁷ ABS projections from Cat No 3222.0. The three population projections are based on assumptions that result in Tasmania's population having different proportions of people aged 65 years and over in the population. The medium case refers to Series 29 (also known as Series B), the high ageing case is Series 32 and the low ageing case is Series 28. (Refer to Appendix A for further information).

⁸ ABS projection Series B (Series 29), which assumes an average fertility rate of 1.92 (that is, females, on average, give birth to 1.92 live children over their lifetime), declining improvement in life expectancy from 2010–11, and a net gain, per year, of 550 persons from overseas migration and a net loss of 1 000 persons through interstate migration.

The situation is the opposite for people aged 65 years and over, with two-thirds of the total increase in share yet to occur. For this reason, the term 'acceleration in ageing' is sometimes used to describe future demographic changes in Tasmania.

FIGURE 5: PROPORTION OF TASMANIA'S POPULATION AGED LESS THAN 15 YEARS AND OVER 65 YEARS

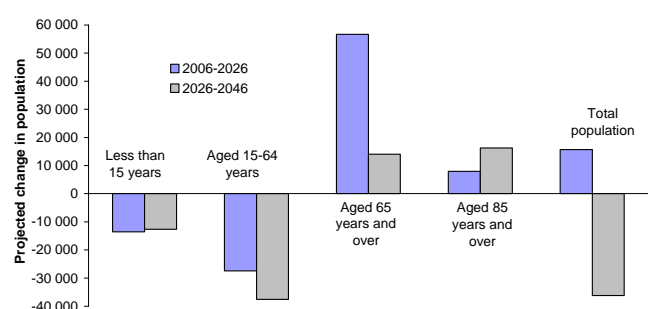


Sources: ABS, *Population by Age and Sex, Australian States and Territories Cat No 3201.0* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

Over the next four decades, the growth rate of those aged 85 years and over is projected to be greater than for any other age cohort. This is due, in part, to the Baby Boomer generation reaching this age from around 2030 onwards.

There are currently around 8 600 persons aged over 85 years in Tasmania. Figure 6 shows that this number is projected to increase by a further 8 000 over the next 20 years, and by around 16 300 over the following two decades.

FIGURE 6: CHANGES IN TASMANIA'S POPULATION – DIFFERENT AGE CLASSES



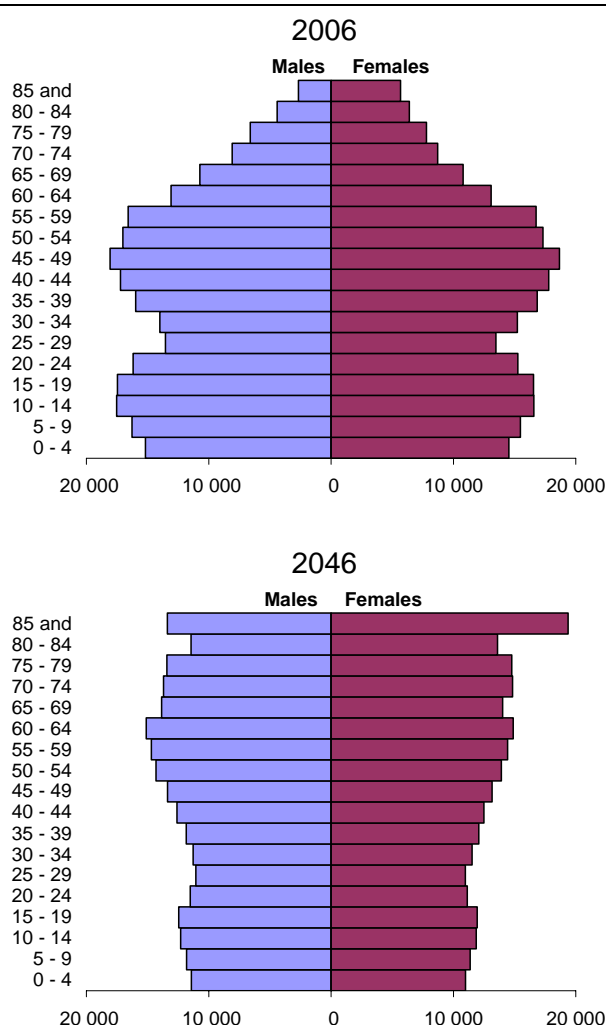
Sources: ABS, *Population by Age and Sex, Australian States and Territories Cat No 3201.1* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

Figure 6 illustrates that it is not only the share of the population aged between 0 and 14 years that is projected to decline but also the absolute number of children in this age group. For example, over the next ten years, the number of children in this age group is projected to decline by almost 8 700, or just under 900 per year.

Population pyramids provide another way of presenting demographic changes for each age cohort over two or more periods.

The two pyramids in Figure 7 illustrate how significantly Tasmania's population profile could change over four decades, with large increases in the number of people aged 65 years and over.

FIGURE 7: POPULATION PROFILES – 2006 AND 2046



Sources: ABS, *Population by Age and Sex, States and Territories Cat No 3201.0* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

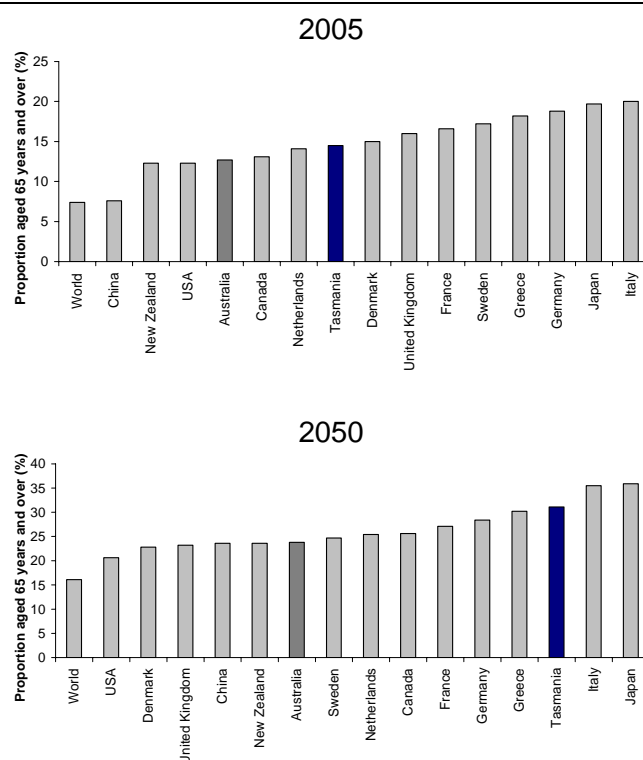
By comparing the population pyramids it is evident that Tasmania's aged ratio (the number of Tasmanians aged 65 years and over compared with those of working age (between 15 and 64 years)) is projected to grow significantly over the next four decades.

Figure 8 shows how Tasmania's current and projected proportion of population aged 65 years and over compares with those in Australia and other countries.

Tasmania's current population does not have a very high proportion of older people, compared to many developed countries, even though the proportion is the highest of all Australian states and territories.

However, the figure shows that within 45 years, Tasmania may have the third highest proportion, compared with those countries listed, behind Italy and Japan only. This demonstrates the acceleration in ageing that is projected for Tasmania in the decades ahead.

FIGURE 8: PROPORTION OF POPULATION AGED 65 YEARS AND OVER – 2005 AND 2050



Sources: United Nations, *Economic and social development*, <http://esa.un.org> and Tasmanian Department of Treasury and Finance.

It will be important to examine the likely regional and local impacts of population ageing across Tasmania once the key state-wide issues have been identified. Detailed work is not possible at this stage as there are no recent population projections at the regional level and none that extend over 40 years. For these reasons, this Paper focuses on the impacts of demographic change at the state-wide level.

The Demographic Change Advisory Council recognises the importance of population projections at the State and local level and has committed to developing, and making publicly available, such projections in the near future.

Box 1: What impact will climate change have on Tasmania's population?

Some commentators and submissions have suggested that Tasmania's population could grow significantly more than under the projections used in this paper due to events such as climate change and concerns over global security.

The ABS has no projections that explicitly account for events such as climate change which would influence population growth if they substantially change interstate migration patterns. The ABS develops its assumptions from past trends and is, therefore, not able to include any assumptions for events that have not occurred, or significantly affected population trends in the past. Any assumptions would be regarded as highly speculative.

If the trend in climate change continues and the impacts occur as some studies have predicted, there is uncertainty as to whether this would have a significant impact on net interstate migration patterns, or the issues contained within this paper.

Changes to Tasmania's climate are not expected to be dramatic in the short to medium term. Nationally, it is projected that by 2030, annual average temperatures could potentially be 0.4 to 2.0°C higher, according to recent major studies. According to some predictions, more severe events in mainland Australia can be expected, such as cyclones, floods and droughts.

Climate change is projected to occur gradually over a number of decades. In the past 50 years, Australia's average temperature has increased by approximately 1°C and there have been periods of extended drought in mainland Australia. This change does not appear to have had a significant effect on interstate migration to and from Tasmania. Employment opportunities and housing affordability, and family and social networks appear to have had a much greater impact on interstate migration trends. Finally, any underlying increase in in-migration will lead to a higher population level, but is not likely to have a significant effect on the overall rate of population ageing in Tasmania.

Generational differences

A generation is often broadly defined within a 15 to 20 year range. Due to their economic and social environment, broad characteristics are attributed to each generation.

As with all generalisations, many individuals within a generation will not have these characteristics, while they may appear in many people in other generations. However, it is considered useful by some commentators to attach characteristics to different generations, examples of which are in Box 2.

According to demographer Bernard Salt, Baby Boomers are generally regarded as being more loyal to their employer than later generations, such as those in Generation Y. Employers may face increasing difficulty in retaining key staff in decades ahead, if current trends in labour mobility continue.

Importantly, people of post-retirement age cannot be regarded as a homogenous group. At any time, the pool of retired people comprises mostly two generations. At present, most aged 60 years and above are classed as 'Frugals' and 'Pre-Boomers' according to Salt.

The 'Baby Boomers' have just commenced entering retirement age. They will have significantly different characteristics to previous retiring generations, including, on average, having more wealth and more capacity to undertake some paid work after retiring from their principal employment.

There are also factors other than generational traits to be considered when assessing the social and economic impacts of population ageing on population age groups. For example:

- certain health problems, and associated demand for assistance and services, generally increase with age. It is therefore often not appropriate to assume that these issues apply equally to those in all age classes over 65; and

- socio-economic circumstances will always vary within all generations. While the Baby Boomers may be more affluent, on average, than those in earlier generations, the absolute number of older Tasmanians with low wealth and incomes may increase, due to the growth in the size of the total population aged 65 years and over.

The barriers that prevent disadvantaged older Tasmanians from actively engaging in society are, in many respects, the same barriers that apply to other disadvantaged Tasmanians. These include limited access to public transport, housing, and basic health services (such as dental, and general practice), and often low education levels.

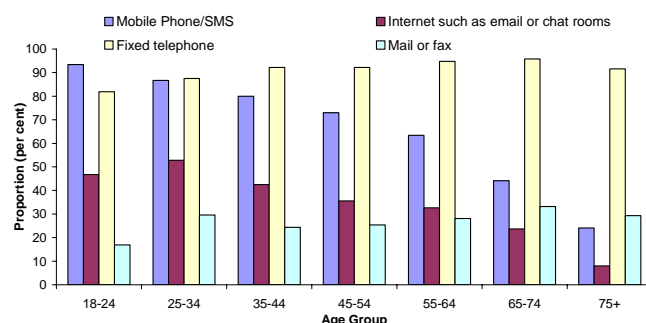
In some cases, however, younger generations acquire different skills as a result of technological change. For example, the communication technologies used by different age classes varies significantly.

Figure 9 shows the proportion of the Australian population that uses various methods of communication to contact family and friends living outside their household.

Usage of more recent technology such as mobile phones and the internet peaks in the younger age groups and declines to quite low proportions for those aged 75 and above. Usage of fixed line telephones and mail increases among the older age groups. It is likely that as the younger generations move through to retirement age, they will continue to use newer communication technology, which may assist them to access larger social networks, compared to the current generation of aged Tasmanians.

More importantly, new technology may enable a larger range of services to be available to future older Tasmanians in their own home.

FIGURE 9: TYPE OF CONTACT WITH FAMILY OR FRIENDS LIVING OUTSIDE HOUSEHOLD IN PAST THREE MONTHS, TASMANIA, 2006



Source: ABS, General Social Survey, Tasmania, 2006, Cat No 4159.6.55.001.

Box 2: Generational Characteristics

The Frugals

Born: 1916 to 1931. Age in 2007: 76 years and above.

Number in Tasmania in 2005–06: 33 700 (6.9 per cent of total population).

Characteristics: Born after World War I commenced and before the Great Depression. As a result, lived in a period of austerity, making them frugal by nature. Very careful with money and not comfortable with debt.

Pre-Boomers

Born: 1931 to 1946. Age in 2007: 61 to 76.

Number in Tasmania in 2005–06: 64 400 (13.2 per cent of total population).

Characteristics: Bridge between the Frugals and the Baby Boomers. Responsible for initiating social change that later generations would take further.

Baby Boomers

Born: 1946 to 1961. Age in 2007: 46 to 61.

Number in Tasmania in 2005–06: 104 600 (21.4 per cent of total population).

Characteristics: Responsible for significant social and economic change. However, being children of Frugals, they have maintained many conservative values. Built considerable wealth through investing early (particularly in property) and waiting for an accrued reward. Having a career with a single firm or institution was considered a goal to aspire to.

Generation X

Born: 1961 to 1976. Age in 2007: 31 to 46.

Number in Tasmania in 2005–06: 97 400 (19.9 per cent of total population).

Characteristics: Face difficulty in furthering careers and accumulating wealth due to predominance of Baby Boomers in senior managerial positions and also to inflated property prices. Tend to marry later in life or not at all, resulting in more women entering or remaining in the workforce. Money is allocated less to families and wealth accumulation, and more to personal pursuits.

Generation Y

Born 1976 to 1991. Age in 2007: 16 to 31.

Number in Tasmania in 2005–06: 92 600 (18.9 per cent of total population).

Characteristics: Despite being the children of Baby Boomer parents, hold very different values. Happy to use the family home as a base until well into their 20s. As their entire working life has been in strong economic times they do not make long-term commitments, rather they tend to move from one job to another, and often move interstate or overseas to explore further opportunities.

The Millenials

Born since 1991. Age in 2007: 0 to 16.

Number in Tasmania in 2005–06: 96 300 (19.7 per cent of total population).

Characteristics: Not yet of working age. However, it is likely they will continue with Generation X and Generation Y notions of short-term, fluid, transient and mobile working and personal relationships. Further advances in communications will continue to break the distinction between workplace and home, with a greater focus on deliverables and outcomes rather than procedures and behaviours.

Source: Salt, B. (2006) *The Big Picture: Life, Work and Relationships in the 21st Century*, Hardie Grant Books.

ECONOMIC ACTIVITY

Tasmania's income per person is projected to grow over the coming decades due to productivity growth. However, the rate of economic growth is projected to be constrained by population ageing.⁹ This is a common trend in all ageing societies around the world.

The effect of population ageing is that Tasmania's economy is likely to grow at a slower rate than the national average. Tasmania's Gross State Product (GSP)¹⁰ per person is currently around 75 per cent of the national average. The modelling suggests that, based on long-term trends, this would decline in future decades.¹¹

If Tasmania's economic activity grows at a slower rate than Australia's, the State may face difficulties attracting and retaining skilled and productive workers. This is because areas with strong economic growth tend to offer higher wages. Such an outcome may in turn accelerate the ageing of Tasmania's population due to younger workers moving interstate to higher paid jobs. What is occurring in Western Australia at present is a clear demonstration of this effect — that is, an influx of young workers and wages growing faster than the national average due to substantial economic activity, as a result of the resource boom.

Lower economic growth compared with other states and countries would also make it difficult to attract business investment, as such investment also tends to be attracted to areas with strong economic activity and skilled labour.

The projected shrinking and ageing of the working-age population are two key reasons that underpin the projected slow down in Tasmania's rate of economic growth.

⁹ These projections are based on preliminary modelling undertaken by the Tasmanian Department of Treasury and Finance. The modelling includes certain assumptions for economic and demographic parameters, such as age specific labour force participation and unemployment rates, and average hours worked and the labour productivity rate.

¹⁰ GSP is an estimate of the market value of all goods and services produced in an economy during the year.

¹¹ Key reasons for the projected divergence between Tasmania's and Australia's economic performance are the historically lower labour productivity growth rates in Tasmania and lower labour force participation rates.

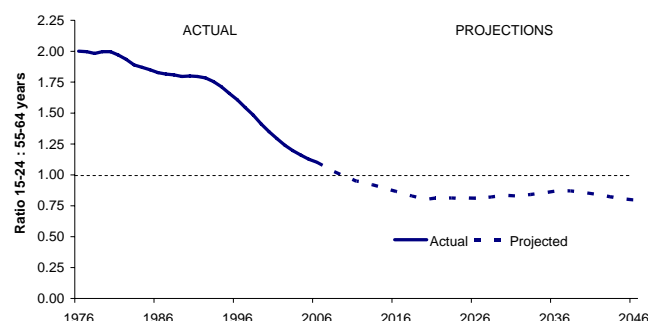
Working age population

Tasmania's working age population is likely to peak at around 322 000 in the next three years and then start to decline.¹² Over the next 40 years, the decrease could be around 20 per cent.

The effect is that fewer people will be available to work and provide the goods and services that the community demands. Currently, there are about two people of working age for every one person above or below this age range. By 2046, this ratio could decline to one working age person for every person not of working age.

Another way of looking at the changes in working age population is to compare the number of people at an age when they are likely to enter the labour market (15–24 years) with those at an age when most people leave the labour market (55–64 years). In 2006, there were about 6 100 more people in the entry age group. By 2009, projections suggest there will be about the same number of people in both age classes, and over the following 10 years (2010 to 2019), each year there could be an additional 1 400 more people in the exit age range than in the entry age range.

FIGURE 10: ENTRY EXIT RATIO IN TASMANIA 1976–2046

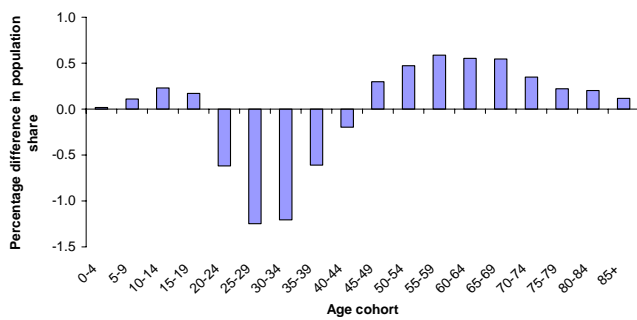


Sources: ABS, *Population by Age and Sex, Australian States and Territories Cat No 3201.0* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

Tasmania's demographic structure is an important determinant of overall labour supply. Figure 11 shows that, compared to Australia, Tasmania has a lower proportion of its population in the prime working-age groups and a higher proportion of its population in the older age groups, including those where there is virtually no participation in the labour market.

¹² These population projections are based on ABS projections as outlined in the Introduction section of this report.

FIGURE 11: TASMANIA'S PERCENTAGE POINT DIFFERENCE IN POPULATION SHARE FROM AUSTRALIA, 2005–06



Source: ABS, *Population by Age and Sex, Cat No 3201.0*.

The expected decline in the working age population will impact on Tasmania's employers. In particular, they will experience greater difficulties in attracting younger workers and, compared to current trends, can generally expect to have a larger percentage of older employees in their workforce.

For example, in 1986, approximately 25 per cent of people employed were aged 45 years or over. This share increased to 40 per cent in 2006 and is expected to increase further in future decades, though more slowly than in the recent past.

Skill and labour shortages

With demographic change leading to a smaller and ageing labour force, and with the increased mobility of labour, skilled labour will be in strong demand, especially when the Tasmanian and national economies are in a strong growth phase.

Most states and territories in Australia have been experiencing significant skill shortages across a range of occupations and professions for several years. Tasmania also faces skills shortages in several industries and occupations, particularly in the construction and metal fabrication industries.

The problem becomes more acute when, for certain classes of skilled labour, a large proportion are aged 40 years or over, and there are relatively few younger persons with the necessary skills or interest in working in that occupation or industry. Current examples include aged care workers and farm managers.

In the decades ahead, the average hours worked by these older employees are projected to decline and large numbers may retire over a relatively short period. This could present some major challenges to Tasmanian employers.

The need to match labour supply with demand is likely to lead to increasing demand for training opportunities for mature-aged and other workers, especially while the current strong economic conditions continue.

Global labour market

In an economic climate that involves strong demand for skilled labour, the international mobility of labour provides threats and opportunities.

Currently, Tasmania only receives 0.6 per cent of migrants to Australia, which is well below Tasmania's population share of just under 2.4 per cent.

International migration can play an important role in assisting to increase labour supply in Tasmania, especially for skilled labour. However, it may also make it more difficult to retain young professionals who will be highly sought after in an environment of increasing competition for skilled labour across developed countries.

Currently, wages for skilled labour in Tasmania are generally below mainland levels, reflecting, in part, lower productivity levels in Tasmania. The capacity of Tasmanian employers to attract and retain skilled workers will be constrained without significant improvements in productivity in the years ahead.

Industry structure

As the population ages and economic growth slows relative to other states and territories, Tasmania's industry structure is likely to change. These changes can create both opportunities and challenges for businesses.

The ageing population is likely to produce new consumption patterns and demand for services. Box 3 outlines some projected national consumption patterns based on recent research conducted by AMP.

Box 3: Projected consumption patterns

“During the next 15 years, there will be pronounced changes in the characteristics of consumers, which will have profound impacts upon both business and government.

By 2020, the large Baby Boom cohort will be aged 60 to 75 years and growth in the number of older households will be much more rapid than for younger households. About one million new “retired” households with a household head aged 65 years or more will be created between 2004 and 2020. This compares with less than 150,000 new households with a head aged less than 45 years.

This fast pace of demographic change will result in total sales of those goods and services preferred by older Australians increasing rapidly – while those associated with children will face a relative slump. Areas set for above average growth include:

- healthcare spending;
- caravan sales;
- gambling;
- golfing green fees, and
- live theatre.

Areas facing a relative decline include:

- baby foods;
- children’s clothing and footwear;
- toys;
- cordials and soft drinks;
- sports lessons, and
- driving lessons.

Consumption trends during the past decade were partly driven by the rising number of two-income working age families, who spawned a boom in childcare and home help services, take-away and restaurant meals and short holiday breaks. But over the coming years to 2020, change will be more strongly driven by empty-nester Baby Boomers in their 50s and 60s – who are frequently two-income, but also beginning to save more seriously for their looming retirement – and by those who have already retired.”

Source: AMP (2006) Tomorrow’s Consumers: AMP.NATSEM Income and Wealth Report Issue 15, December 2006.

LABOUR FORCE PARTICIPATION

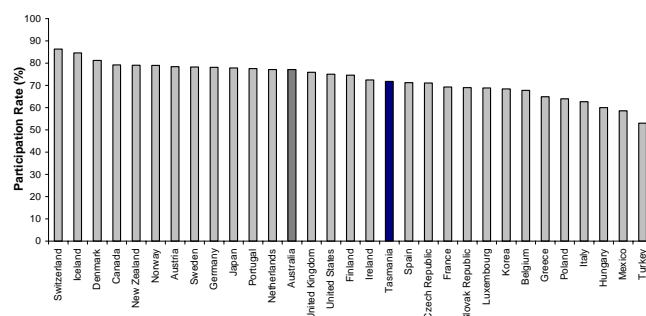
The labour force participation rate is a key determinant of economic growth and an important economic measure for many reasons.¹³

- The participation rate measures the relative size of the supply of labour available for, and willingness to contribute to, the production of goods and services in an economy.
- Increased participation, if it leads to employment, maintains and increases the work skills of those of working age, reduces individuals' vulnerability to financial pressures and provides significant social and welfare benefits.
- A high participation rate can assist in overcoming mismatches between labour supply and demand, particularly when the labour market is tight.
- From the perspective of national and state governments, a higher participation rate, if it leads to higher employment, increases taxation revenues and reduces reliance on government benefits and other welfare services. This leaves governments better placed to address some of the fiscal pressures associated with population ageing.

How we compare

Tasmania's labour force participation rate is in the mid-range compared with many developed countries, as shown in Figure 12. To enable this comparison, the Tasmanian and Australian participation rates have been adjusted to conform to the OECD definition.¹⁴

FIGURE 12: OECD PARTICIPATION RATE BY COUNTRY 2005



Sources: OECD Economic Outlook 79 database and ABS, Labour Force, Australia, Detailed, Cat No 6291.0.55.001.

Tasmania's labour force participation rate is currently around 60 per cent,¹⁵ compared to the national average of about 65 per cent. Generally, the rate is lower for all age groups in Tasmania, compared with the national average. This shows that factors other than population ageing account for Tasmania's relatively low participation rate.

In 2006, approximately 7 300 'additional workforce' participants between the ages of 15 and 69 would be required in Tasmania for the State to reach the national participation rate for each five year age group. That is, with an additional 7 300 participants distributed across various age groups as illustrated in Figure 13, the State's participation rate for each age group would be equal to the national level. If all of these additional participants were in employment, this would boost employment by 3.3 per cent.

Approximately two-thirds of the 'additional participants' (4 900) would need to come from the 50 to 64 year age group — as this age group has a considerably lower participation rate in Tasmania compared to the national average. A significant share of 'additional workers' would also be aged 25 to 34 years (around 2 500 persons). The additional participation required in each age group is shown in Figure 13.

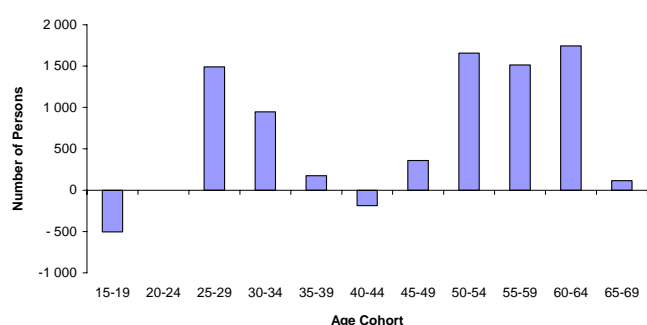
This figure can also be interpreted as showing the shortfall in participation in Tasmania across different age groups.

¹³ The labour force participation rate is a measure of the proportion of the civilian working age population – those aged 15 years and above – who are in the labour force. The labour force comprises those who are employed and those who are unemployed.

¹⁴ The OECD participation rate is calculated for those aged 15 years to 64 years. This differs from the ABS participation rate, which is calculated for those aged 15 years and over.

¹⁵ August 2007 (trend) – ABS, Labour Force, Australia, Cat No 6202.0.

FIGURE 13: CHANGES IN TASMANIA'S LABOUR FORCE THAT WOULD PROVIDE THE SAME PARTICIPATION RATES AS NATIONALLY, 2006



Note: The figure shows the difference for each age cohort due to Tasmania (generally) having lower participation rates than the national rate.

Sources: ABS, Labour Force Australia, Detailed – Electronic Delivery, Cat No 6291.0.55.001 and ABS, Population by Age and Sex, Cat No 3201.0.

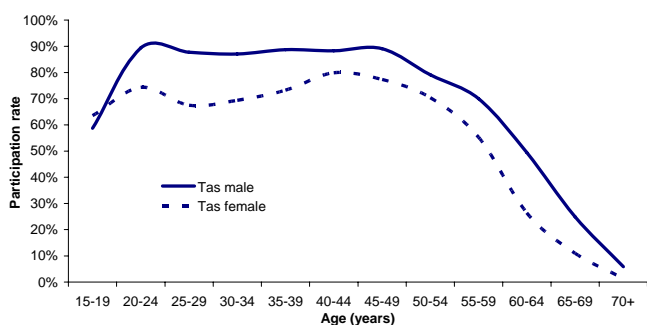
Factors affecting participation

Many factors affect participation rates, such as the health and skill level of the workforce, the level of economic activity and wages offered, family values, and the level and sources of household income from employment, investment income and government payments.

In addition, age is a significant factor in accounting for differences in participation rates, particularly as there is no upper age limit for those included in the overall participation rate measure. Around 1.7 percentage points (or around 40 per cent) of the difference between the participation rates in Tasmania and Australia is estimated to be due to Tasmania's older population.

Figure 14 shows how male participation in the labour market starts to decline sharply at the age of 55 and, for females, the decline starts around the age of 50.

FIGURE 14: TASMANIA'S PARTICIPATION RATE BY AGE – 2006



Source: ABS, Labour Force, Australia, Detailed Cat No 6291.0.55.001.

Tasmania's overall participation rate is likely to decrease in future decades as the proportion of older people in the population increases, unless there are significant changes in age-specific labour force participation rates.

The participation rate of older Tasmanians (and Australians more generally) has increased in recent years and there are some indications that further changes can be expected. For example, the age at which teachers in Tasmania's public sector are choosing to retire has been increasing.

The changes to taxation arrangements for superannuation are likely to encourage more workers to continue working until age 60, if they are able. It has also been suggested that as women now tend to have children later than those in earlier generations, households will want to continue in employment to maintain income levels for longer than in earlier generations.

Of interest will be by how much further the participation rate will increase and whether this trend will be ongoing or specific to the current generation. It is also the case that policy changes (such as tax arrangements for superannuation) will have a relatively greater impact in Tasmania to constrain the decline in the participation rate.

While most employees retire voluntarily from the labour force after age 55, in many cases retirement is involuntary, due to poor health, a lack of the required skills or as a result of failure to secure employment. This accounts for part of the lower participation rates of those aged 50 years and above.

However, there are very little comprehensive data available that shed light on why labour force participation rates are lower for the older age groups, and in particular why the rates in Tasmania are below those in mainland Australia.

Figure 15 shows some reasons given by Tasmanians and Australians aged 45 to 65 for not participating in the labour force. The Tasmanian data sample is small and must be interpreted with caution. The national data sample may provide a broad illustration of the reasons given by those in older age groups for not participating.

The main reasons why Australians aged 45 to 65 years are not participating in the labour force were reported to be:

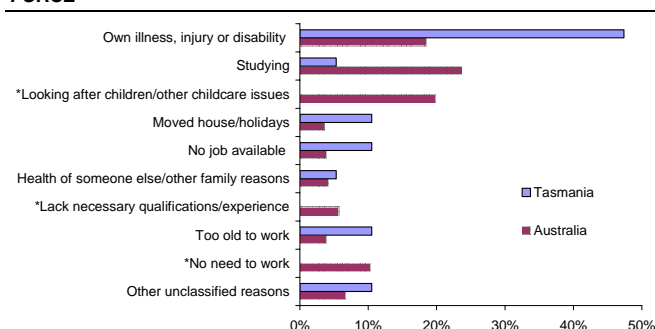
- studying;
- preferring to look after children/other child care issues;

- own illness, injury or disability; and
- no need to work.

Some results in the table are consistent with other trends in Tasmania, such as a higher proportion than nationally of adults that are disabled, and generally lower levels of participation in post-compulsory education.

Furthermore, some of the other reasons given, such as 'too old to work' and 'no jobs available', may reflect the relatively low level of skills of many in this age group in Tasmania. That is, they may not be able to secure well paid jobs that would attract them to be in, or stay in, the workforce.

FIGURE 15: REASONS REPORTED BY TASMANIANS AND AUSTRALIANS AGED 45 TO 65 FOR NOT BEING IN THE LABOUR FORCE



* No Tasmanian respondents gave this as a reason for not being in the labour force.

Source: Melbourne Institute of Applied Economic and Social Research, Household, Income and Labour Dynamics in Australia (HILDA) Survey, Release No. 4, 2006.

Challenges

Modelling by the Tasmanian Department of Treasury and Finance (Treasury) suggests that Tasmania's participation rate could fall to under 50 per cent by 2046, compared with around 55 per cent at that time for Australia as a whole. A similar result was obtained by the Productivity Commission in 2005 when it examined the potential impacts of Australia's ageing population.

These results assume that there are no major external factors, including policy changes by governments, that influence decisions on participation.

Tasmania appears to have significant opportunities to increase participation rates across all age groups. However, many people not participating in the labour market make valuable contributions to society outside paid employment, such as caring for children, providing informal care for family and friends and undertaking volunteer work. The 2006 Census revealed that a higher proportion of Tasmanians undertake these tasks compared to Australians on average.

As there is likely to be increasing pressure for greater labour market participation in the years ahead, the challenge for many households and volunteer organisations will be to retain their supply of unpaid labour.

The combination of a declining population in the 15 to 64 age range and a declining participation rate is likely to lead to several challenges for employers, governments and individuals, including those listed below.

- Some employers may experience labour shortages and will be under pressure to improve the salary and conditions they offer to retain and attract employees.
- Employers may find that they are unable to recruit and retain workers with the skills they want.
- Individuals may need to retrain and up-skill in order to remain in the workforce for longer.
- Governments will be under pressure to ensure that the welfare safety net does not create incentives for people to leave, or not enter, the workforce.

The Demographic Change Advisory Council recognises the challenges of a potentially declining labour force and, as a first step in understanding the issue, has released an Information Paper that examines who is not currently participating in Tasmania's labour force and the reasons why they are not participating.¹⁶

¹⁶ This Information Paper is available at www.dcac.tas.gov.au.

LABOUR PRODUCTIVITY

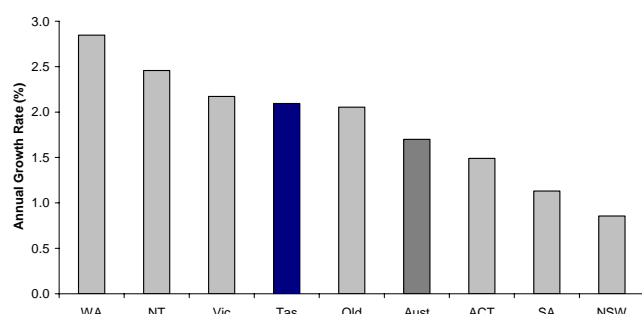
In the long run, productivity¹⁷ is the main determinant of economic growth and also of living standards, as this determines real income levels.

In particular, if Tasmania's working age population declines and participation rates decline, living standards can only be maintained, or improved, if productivity rates improve.

Over recent decades, Tasmania has not, on average, performed as well as the national average in terms of productivity growth. For example, over the past 15 years, Tasmania's labour productivity has increased on average by around 1.5 per cent per annum. This compares to 1.75 per cent productivity growth nationally.

Tasmania's rate of productivity growth has grown strongly in the past five years. Figure 16 shows that Tasmania's average productivity growth over five years to 2005–06 has been higher than nationally. However, despite this improvement, labour productivity levels in Tasmania are currently around 85 per cent of the national average.

FIGURE 16: AVERAGE PRODUCTIVITY GROWTH IN AUSTRALIAN STATES AND TERRITORIES – 2001–02 TO 2005–06



Sources: ABS, *Australian National Accounts: State Accounts* Cat No 5220.0; ABS, *Labour Force, Australia, Spreadsheets*, Cat No 6202.55.001; ABS, *Labour Force, Australia, Selected Summary Tables*, Cat No 6291.0.55.001.

Population ageing can affect labour productivity in various ways. For some occupations, especially those that involve manual labour, labour productivity may decrease with age. Furthermore, younger workers may be more adept at adjusting to new technology, acquiring new skills and adopting new work practices.

On the other hand, older workers have acquired experience and corporate knowledge, and may have better interpersonal skills, all of which may significantly contribute to the productivity of individuals and organisations.

The main factors that influence labour productivity are the education and skill levels of the working population, the health of the workforce, the level of investment in infrastructure, capital and new technology, and the efficiency and effectiveness of labour and product markets (eg no irrelevant red tape). All of these factors can be influenced, to varying degrees, by individuals, businesses, and governments.

On the other hand, there are many productivity drivers that are, to a large degree, determined by external factors, such as proximity to markets, industry structure, and technological advancements worldwide. In this context, as Tasmania (and Australia more broadly) is largely a technology follower, productivity growth is determined, in part, by technological advancements in other countries.

Increasing capital investment

High levels of labour productivity are generally associated with high levels of capital, in terms of quantity and quality.

Over the past two decades, Tasmania has not, on average, performed as well as the national average in terms of business investment. Investment in Tasmania has, however, grown strongly in the past five years, though the rate of investment remains below the national average.

The result is that Tasmania has a relatively low level of capital stock.¹⁸ As new capital tends to include productivity-enhancing technology, the average quality of Tasmania's capital is also likely to be below the national average.

It is likely that the stronger Tasmania's economic growth is in future decades, the greater success Tasmania will have in attracting investment, and therefore in improving productivity.

¹⁷ Labour productivity is a measure of output produced for a given level of labour input. Therefore, for a given level of labour input (eg hours worked), higher productivity levels lead to higher levels of outputs and incomes.

¹⁸ Capital stock can be broadly defined as the accumulated value of tangible and intangible fixed assets. Examples of tangible assets include buildings, machinery and equipment and livestock; examples of intangible assets include mineral and petroleum exploration, and computer software.

Superannuation funds are becoming major investors in some areas such as commercial property. Tasmania will need to be an attractive investment destination for these funds as part of its overall aim to secure high levels of investment. Strong State economic performance and high levels of labour skills and productivity are likely to lead to increased investment by these funds.

Productivity in the public sector

The public sector accounts for a significant proportion of Tasmanian economic activity. For example:

- in 2005–06, there were approximately 36 200 State Government employees (including in government businesses), which accounted for 16.2 per cent of total Tasmanian employment;
- employee wages and on-costs (superannuation, workers' compensation and leave entitlements) paid to State public sector employees in 2005–06 were \$1.6 billion, accounting for 19 per cent of total Tasmanian wages and on-costs in that year; and
- public sector investment in Tasmania in 2005–06 (predominantly by State Government agencies and government businesses) was \$921 million and comprised 20.0 per cent of total investment in the State over that period.

Given the large contribution of the public sector to the Tasmanian economy, the level of public sector productivity can make a significant difference to the State's economy, the financial position of the State, and the overall wellbeing of the community.

With the projected demographic trends, there will be a substantial increase in demand for health and community services across Tasmania. This presents major challenges, as the delivery of these services tends to be more efficient when they are provided in major urban areas.

There is also increasing attention paid to the scope for innovation in service delivery, given the growth in telecommunications infrastructure and the increased familiarity that many Tasmanian households have with new computer-based technologies.

However, the challenge will be to ensure that people without the necessary level of education and technology skills are not disadvantaged even further.

Planning issues may also become important in improving public sector productivity. In particular, it will be important to ensure that, where possible, business and residential developments occur in locations that enable economies of scale to be obtained in the delivery of government services, such as public transport and for public infrastructure such as roads, schools and hospitals.

Productivity is very difficult to measure in the public sector as outputs are often difficult to define and there is no traded market in which they are provided. Furthermore, government agencies are under sustained pressure to improve the quality of their services, which often adds to costs. Examples of such cost pressures include reducing class sizes, increasing the number of teachers' aides in classrooms and increasing the number of nurses allocated to hospital wards.

The challenge governments face is to identify where productivity gains can be made and to promote a culture that accepts the changes required to achieve these gains.

EDUCATION

Schools

Over the next 20 years, the proportion of the population aged under 15 years is projected to decline by approximately 14 per cent. The absolute number of children is also projected to decline.

Over the next ten years, the annual decrease in the number of primary school-aged children (those aged between 5 and 12 years) is projected to be around 480, which is equivalent to slightly more than two average-sized State primary schools. The result will be a decline in school enrolments, which may be quite rapid in some areas.

Currently, on average, government schools are occupied to just over 60 per cent of their capacity. Future reductions in student numbers over the next 10 years is expected to reduce this to around 50 per cent capacity. It is very difficult, particularly in regional areas, to offer students the diversity of activities that are available in schools that are close to full enrolment.

Some school costs are fixed, regardless of the level of enrolment. These include the cost of staff in support and administrative roles as well as the costs of maintenance of core infrastructure, rates and charges, cleaning and grounds keeping, information and communication technology, and energy.

A large proportion of the Department of Education's budget is driven by enrolment numbers. However, a greater proportion of expenditure will be needed to maintain existing infrastructure to a level which will ensure appropriate educational opportunities and outcomes for students into the future. With a smaller student population, there will be pressure in some areas for education services to be restructured and redesigned, in order to maintain the efficiency and effectiveness of these services. This type of review has recently been initiated by the State Government.

Building quality educational facilities and employing highly skilled and effective teachers are critical for ensuring that all children get the best educational opportunities.

Currently, Tasmania has the lowest school retention rates (particularly the proportion of Year 10 students completing Year 12) of all states and territories and this has declined recently. Furthermore, Tasmanian high school students perform less well in national numeracy and literacy tests, compared with other states and territories.

Productivity improvements in the future will be critical for compensating any potential negative impacts from population ageing on economic growth. Given the strong link between education and productivity, a key challenge will be to improve educational outcomes, from pre-school learning through to Year 12 and in the post-compulsory education sector.

Higher education, training and skill development

The skills of the labour force influence the level of economic activity in several ways, for example:

- people who are more educated are more likely to participate in the labour force;
- people who are less educated tend to experience longer periods of unemployment;
- better educated people tend to be healthier and therefore have reduced absenteeism; and
- skilled people tend to be more productive and therefore can obtain higher salaries.

According to one study, every additional year of education across the community increases real GSP by around eight per cent.¹⁹

Over the past 40 years, skills acquisition and work patterns have changed significantly. For almost all people, formal education was only undertaken by those at the commencement of their working life. Many people intended to stay with the same organisation, or in the same profession, for their entire working life.

¹⁹ 'The Contribution of Innovation and Education to Economic Growth', by Steve Dowrick, ARC Senior Fellow and Professor of Economics, Australian National University. Melbourne Institute Economic and Social Outlook Conference, April 4-5, 2002, 'Towards Opportunity and Prosperity'.

However, it is generally agreed that there is greater movement between jobs and occupations by those currently working than in previous generations. The work patterns for younger generations, such as those in Generation Y, are significantly different from those of older workforce members, with more people moving in and out of the workforce, and acquiring new skills and qualifications later in life. This is expected to continue in the future.

As Tasmania's working population ages, employers will be increasingly reliant on mature workers in the future. The challenge for many employers will be to ensure that their staff have the necessary skills to perform their jobs. Training demand is expected to increase, particularly as older workers are encouraged to remain in the workforce. This will often require re-skilling.

The proportion of Tasmania's population with a bachelor degree or higher is around 16 per cent, compared with a national average of around 20 per cent. A key challenge for the community over the next decades involves ensuring that Tasmania's labour force has the appropriate level and type of skills required by employers.

Currently, the proportion of young people participating in vocational education and training far outweighs the proportion of mature aged people. However, older people participating in training are making up a growing proportion of all students, and this trend is likely to continue.

For example, in 1999, students aged between 35 and 64 years accounted for 18 per cent of all students, up from 15 per cent in 1989.

Figures from the University of Tasmania show that in 2002, seven per cent of its students were aged between 45 and 64 years; in 2007 this has grown to 8.2 per cent.

Many mature-aged people are reportedly enrolling in higher education and training courses to acquire new skills whilst in employment. While on-going training and re-skilling is critical for all workers in a modern economy, it is particularly important for mature-aged workers in physically demanding occupations who want to, or need to, continue in the workforce.

Part of the challenge in encouraging increased participation in mature age learning involves breaking myths or incorrect perceptions about mature-aged workers. For example, some employers believe that mature-aged workers are not interested or able to learn new skills and that they are generally resistant to change. This attitude has resulted in some workplaces that have invested time and money in up-skilling only part of their workforce whilst ignoring a large proportion.

Equally, it is reported that some mature age workers are reluctant to return to formal training as they are uncomfortable being in learning environments with much younger students.

The design and delivery of training courses will therefore be critical for ensuring that participation by men and women of all ages is maximised in the future.

Lifelong learning

Lifelong learning is an important concept for individuals in the modern world. By definition it emphasises the importance of learning beyond working age. Continuous learning and mental stimulation has been proven to be essential for the wellbeing of older people and for having a positive impact on people's health. There is evidence that lifelong learning and participation in learning communities can help ward off cognitive decline, such as dementia.

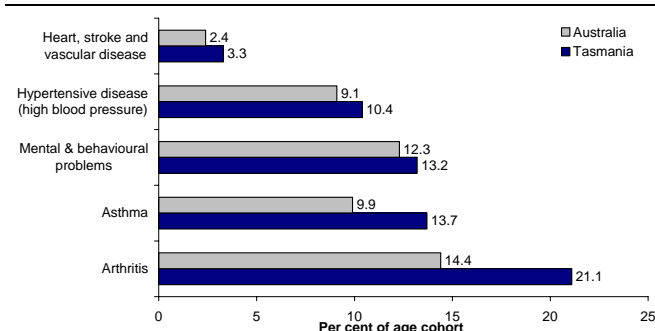
Libraries, online access centres, archives and adult and community learning will have an important role to play in keeping older Tasmanians actively engaged in lifelong learning and social opportunities. Successful interaction contributes to the reduction in social isolation and increases independence.

HEALTH

The health status of a community is a key factor in shaping many social issues. It is also a critical determinant of a person's quality of life and ability and willingness to participate in the workforce. There are also strong links between health and productivity. In this sense, population health underpins the social and economic wellbeing of a community.

Tasmania currently ranks poorly against the national average on many measures of health. This applies to health conditions, such as higher rates than nationally of lung cancer and cardiovascular diseases, and preventable risk factors, such as the incidence of obesity and smoking. Indications are that these trends will continue into the future.

FIGURE 17: RATES OF HEALTH CONDITIONS - AGED BETWEEN 18 AND 64 YEARS - 2004-05



Source: ABS, National Health Survey, Cat No 4362.0.

Demand and cost drivers

A number of factors are likely to impact on the demand for health services. Some of these factors are outlined below.

- A growing number of older Tasmanians – older people tend to require more health-related services than younger people. This is partly because there are numerous health conditions that are age-related, such as dementia, muscular-skeletal disabilities and injuries. These are projected to increase as the proportion of older people in the population increases. For example, the likelihood of being diagnosed with dementia doubles every five years from age 65. It is predicted that by 2016, dementia will be the major cause of disability for all Australians, overtaking cardiovascular disease, cancer and depression. In Tasmania, there are currently around 5 350 people living with dementia and this number is predicted to nearly treble to 14 340 by 2050.

Other neurological and sense disorders, such as adult onset hearing loss and macular degeneration, are also likely to increase, as these generally occur later in life.

Type 2 diabetes and ischemic heart disease also often have their onset later in life, though their causes are not necessarily age-related. The cost of treating these diseases is generally much higher in older patients. The risk of acquiring these diseases has been shown to be reduced by health behaviours earlier in life.

Type 2 diabetes, anxiety and depression, and ischaemic heart disease are projected to join dementia as the top four national disease burdens by 2023.

Arthritis and musculoskeletal conditions (which include osteoarthritis, rheumatoid arthritis and osteoporosis) and oral diseases may also increase as their prevalence is higher in older age groups.

The demand for ambulance services is also age-related. Over the past six years there has been a 48 per cent growth in ambulance demand in Tasmania. A recent national study has shown that the ageing of the population alone accounts for 30 per cent of the growth in national ambulance demand. Other demographic factors that impact on ambulance services include: elderly people living alone; single parents with young children; and people moving to outer urban areas - with increased caseloads in those areas (such as Sorell in Southern Tasmania).

- *Improved life expectancy* – life expectancy has been increasing in Tasmania since records began. This trend is expected to continue and, while this is clearly desirable, it means that the incidence of some diseases is likely to affect people at older ages than currently. In addition, as people live longer, they may become susceptible to more and/or new diseases.
- *Socio-economic status* - currently around 40 per cent of Tasmanians are in receipt of Australian Government benefits or allowances. Based on current entitlements and trends, this could exceed 50 per cent as Tasmania's population ages.

Health status tends to be inversely related to income and wealth levels. For example, one ABS survey found that the incidence of diabetes in Australia is approximately twice as high in households in the most economically disadvantaged areas, compared to the most advantaged areas. Risk factors also tend to be affected, with the rates of smoking and obesity being higher in low-income households.
- *Changes in health status* – changes in disease and illness profiles across the Tasmanian community will change the mix of public and private health and community services, public infrastructure and transport requirements. For example, if the future population is healthier, fewer hospital services may be required throughout life compared to those required by the current population.
- *Changes in expectations* – Tasmanians have come to expect a high level and quality of health services. Future Tasmanians are likely to be more affluent and better educated, on average, than current generations. With improved knowledge of the benefits of improved medical treatments and technologies, the demand for health services and access to new technologies is likely to increase. In addition, there may be a growing cultural expectation of an active and productive lifestyle for people in older age groups.
- *New technology* – technologies can successfully treat a greater range of ailments and diseases. This generally adds to the overall cost of health services, in some cases very significantly.

- *Salary costs* – wages and salaries in the health sector have increased more rapidly than average growth in wages and salaries across all sectors, both in Australia and in Tasmania. If this trend continues, especially without productivity improvements, this will place further cost pressures on the health sector.

Constraints on the supply of health services

In Tasmania, it is expected that an ageing population will lead to increased demand for professional groups involved in rehabilitation and the treatment of diseases such as cancer and diabetes. It is also expected that there will be greater demand for community and aged care services, health promotion, home support, day care workers and specialists in ageing.

Attracting and retaining health care professionals will be more difficult in the future as competition between employers increases nationally and internationally. In Tasmania, it is expected that there will also be increased competition between public and private providers.

A related concern is the ageing of the health workforce in Tasmania (especially nurses and certain specialists and paramedicals). For example, the average age of Tasmanian general practitioners is almost 50 years, for nurses it is 47 years and allied health professionals it is 41 years. These average ages are generally higher than nationally.

Workforce ageing, together with the difficulty in attracting employees to parts of the sector, or to rural locations, poses significant challenges when demand for such services is likely to increase.

For example, according to one study, the demand for hospital bed-days nationally is projected to double over the next 45 years.

Illness and disease prevention

Demand for certain health services can be reduced if more people avoided certain activities and behaviours that increase their chance of developing particular diseases or health conditions.

Examples include smoking (which increases the chance of developing lung cancer, stroke and heart attack), and obesity and poor diet (which increases the chance of developing Type 2 diabetes). Such chronic 'lifestyle diseases' account for about 70 per cent of Australia's health burden.

In the case of Type 2 diabetes, the estimated total cost (direct and indirect) of managing the condition in Tasmania has been increasing sharply and is now over \$76 million per year. The cost of in-patient treatment is significant, costing the Royal Hobart Hospital around \$20 million per year and accounting for around 10 per cent of in-patient services.

The increasing rates of obesity and Type 2 diabetes complications (such as heart disease, stroke and renal failure) are already putting increased pressure on the health system.

Type 2 diabetes provides one example of where preventive health programs, if effective, have the potential to constrain health care costs in future decades.

One example of successful prevention often quoted is the reduction in smoking rates. In 1945, an estimated 72 per cent of Australian adult males and 26 per cent of Australian adult females were smokers. In 2005, this declined to 26 per cent for males and 20 per cent for females.

Governments have been able to contribute to this reduction by levying taxes on tobacco products, and by prohibiting tobacco advertising and smoking in certain areas, such as in public buildings, aeroplanes, taxis and buses, and hotels. However, some of these options may not be appropriate to reduce other risk factors, such as obesity.

The fiscal pressures that governments will face will encourage them to search for cost-effective measures to encourage individuals to reduce the risk of preventable diseases and illnesses. However, due to fiscal pressure and ever increasing service demand, health departments tend to be focussed on dealing with acute health care and other immediate issues, which may divert resources away from focussing on longer term solutions.

Increasing health costs are likely to require the community to consider and debate the best use of resources in the area of health and wellbeing. In particular, a balance will need to be struck between allocating funds towards proactive measures to promote health and wellbeing, such as preventing cardiovascular disease, cancer and depression, while ensuring a sustainable acute service system.

For equity reasons, governments have been reluctant to provide individuals with the full set of 'price signals' to reflect the health costs they impose on taxpayers and to encourage positive lifestyle choices.

For example, private health insurers are not able to charge higher premiums to individuals who smoke or are overweight, despite the higher expected health care costs in future years. The result is that some, often the majority, of the health costs are borne by taxpayers or other insured persons, and not the individuals themselves who have the capacity to reduce their risks.

This policy also provides disincentives for those with healthy lifestyles and low risks of high health care costs to join a private health scheme.

As the pressure on the health system builds, and if average household incomes and wealth rise, there is likely to be increased focus on the extent to which individuals should fund health services that contribute to their own health and wellbeing.

In cases where certain illnesses and diseases are preventable through lifestyle choices, the debate is likely to extend as to whether these individuals should pay a larger share of health care costs, such as for hospital treatment, pharmaceutical products and other health-related goods and services.

An emerging issue is whether there will be a greater divergence in health status between low income households and higher income households in future decades, and whether this can be avoided.

Efficient and effective service provision of health services

As health costs increase, governments will be under increasing pressure, including from private medical insurers and users of health services, to ensure that resources are efficiently allocated.

Addressing the resource allocation challenge requires an understanding of the changing needs of future health services. For example, medical services such as cancer treatment, renal dialysis and the management of chronic conditions are likely to become more prevalent as the population ages. There is likely to be less emphasis on interventional procedures such as surgery and obstetrics.

This raises issues around the viability of high-end acute services in multiple locations, such as cardiovascular surgery, and whether these services can continue to be provided safely and reliably. This may also mean that some services will need to be centralised to ensure sufficient specialists can work together to support each other professionally and minimise safety and quality issues.

Furthermore, it raises issues about the nature of services to be provided by acute public hospitals. Acute public hospitals are likely to focus on procedures of a more complex nature, while procedures of a lower acuity may be best provided in non-hospital settings. Outpatient services may be limited to complex multidisciplinary care, which cannot be provided in an alternative setting. Emergency departments may become dedicated trauma centres with non-urgent cases being more appropriately dealt with by a general practitioner or in a primary health setting.

However, much of the above will be dependent on ensuring there is appropriate access to primary health services, such as general practitioners, community health facilities, outreach services and reliable transport systems.

Some of the financial pressures facing the health system can be traced to the way the system is funded. For example, the inflexibility of the Australian Government's health funding arrangement for states and territories impedes Tasmania's ability to allocate resources in the most efficient and effective manner.

Furthermore, health funding from the Australian Government does not fully account for increasing cost pressures that the Tasmanian health system faces. While these funding issues are not age-specific, they will become more prevalent in the future due to Tasmania's projected demographic changes.

In addition, the separation of funding and service provision arrangements between the Australian and state governments also places cost pressures on the system. Some specific problems that lead to inefficiencies in our health system are outlined below.

- A lack of policy coordination across health care settings and between health care providers. For example, it has been reported that across Australia in August 2006, about 2 300 people were in hospitals inappropriately, instead of aged care. Not only does this prevent access for others to a hospital bed, but it also costs about three times as much. This issue will become a more serious problem with population ageing.
- Inefficiencies and poor services due, in large part, to the Australian/state government division of responsibilities for health services, such as disability services and aged care services.
- A lack of clarity around health priorities and the services, diseases and target groups that should be the focus of publicly funded health care.

The efficiency of the system is not only determined by funding and governance arrangements but also other factors such as the use of technology and the balance between formal and informal health care.

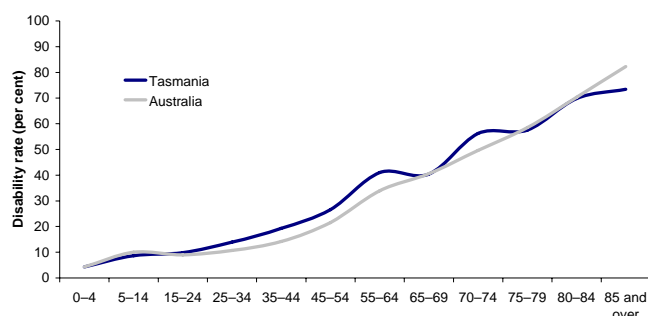
The challenge will be to ensure that policy and funding decisions support and encourage technological advances that can provide improved access to services in a cost-effective manner. One example is Medicare rebates, which are generally not provided unless a face-to-face consultation is undertaken.

Informal care currently supports the health care system. Over the next two decades, it is expected that there will be a significant shortfall between the number of older people needing informal care and the number of family members and other informal carers available. More information on informal carers is provided in the 'Community Services' section of this paper.

DISABILITY

As Tasmania's population ages, the number of Tasmanians with a disability will increase as the prevalence of disability²⁰ is strongly related to age (as shown in Figure 18).

FIGURE 18: DISABILITY RATES BY AGE IN 2003

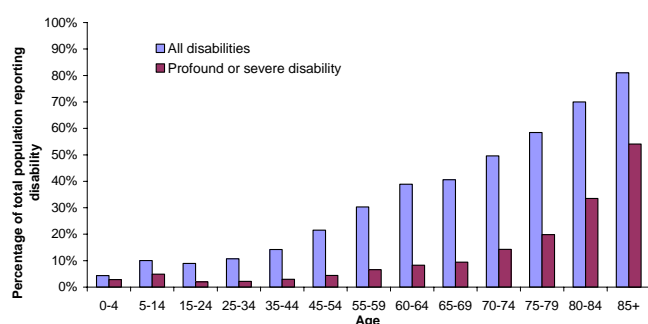


Source: ABS, *Disability, Ageing and Carers, 2003 Cat No 4430.0*.

The overall disability rate in Australia increased from 15 per cent of the population in 1981 to 20 per cent in 2003. The rate of disability in Tasmania in 2003 was just under 24 per cent of the population, higher than the national level, due, in part, to Tasmania's older population.

Just over 21 per cent of Australians aged 65 years and over are classed as having a profound or severe disability. This rises significantly to 58 per cent for people aged 85 years and over.

FIGURE 19: PERCENTAGE OF POPULATION REPORTING DISABILITY, AUSTRALIA, 2003



Source: ABS, *Disability, Australia, 2003, Cat No 4446.0*.

In 2003, there were around 112 000 Tasmanians with a disability. Growth in the number of older Tasmanians in future decades (including 100 per cent growth over the next two decades in the number of people aged 80 years and over) will result in significant growth in the population of Tasmanians with a disability. By 2046, it is projected that 32 per cent of Tasmania's population, about 150 000 people, could have a disability.

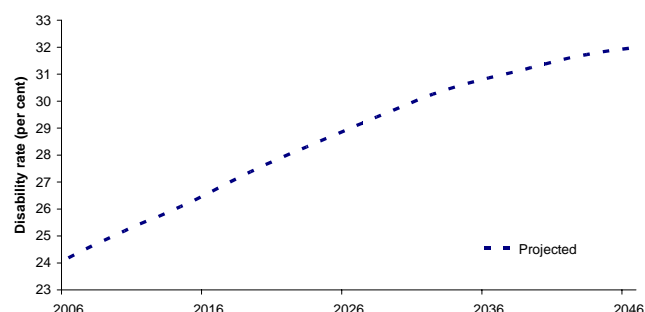
In Tasmania the proportion of the population with a profound or severe disability (ie core activity restriction) increased between 1998 and 2003, from 7.6 per cent to 7.8 per cent. Between 2006 and 2046 this is expected to increase to 12.5 per cent.

In all states and territories, the highest rates of increase in the number of people with severe or profound core activity limitations are projected to occur in those aged 65 years and over, followed by those aged between 45 and 64.

These people require assistance with key daily activities and only some of them will have an informal carer. The additional years of life due to increased life expectancy often involves living with a disability. This will contribute to the growth in demand for disability services.

Improvements in medical treatment during pre or post natal care are also leading to increased disability rates. In 1981, 3.0 per cent of Australian children under 5 years had a disability. By 2003, this rate had increased to 4.3 per cent. Those who become disabled at an early age acquire the same age-related disabilities (ie dementia and musculo-skeletal disabilities) that affect other people. Over time, this will further increase the disability services required.

FIGURE 20: TASMANIAN DISABILITY RATES - PROJECTED



Sources: ABS, *Disability, Ageing and Carers, 2003 Cat No 4430.0* and ABS, *Population Projections, Australia, 2004 to 2101 Cat No 3222.0*.

²⁰ A person is defined as having a disability if that person has a limitation, restriction or impairment, which has lasted, or is likely to last, for at least six months and restricts everyday activities.

Ageing is also likely to impact on the supply of disability services through the supply of informal carers. Informal carers play an important role in providing support and care for those with disabilities.

Many informal carers are aged 65 and over. Nationally, in 2003, there were about 453 600 informal carers (or 17.7 per cent of all informal carers) aged 65 years and over. As these people age and become less able to provide this care, or require care themselves, this will significantly increase the demand for public care services.

HOUSING

In future decades, the living arrangements of Tasmanians will change. According to one ABS estimate,²¹ the number of persons in households with children is likely to decline by approximately 19 per cent over the next two decades. Over the same period, an increase in smaller households is expected, especially households comprising one female, which is estimated to grow by almost 40 per cent. This is shown in Table 1 below.

TABLE 1: PROJECTED NUMBER OF PERSONS IN VARIOUS HOUSEHOLD ARRANGEMENTS IN TASMANIA

Living Arrangement	2006	2026	% change from 2006 to 2026
<i>Family households</i>	393 500	366 600	-7%
Couple family with children	208 000	163 500	-21%
Couple family without children	117 400	141 600	21%
One-parent family	61 700	55 800	-10%
Other	6 500	5 600	-13%
<i>Group households</i>	14 000	12 900	-8%
<i>Lone person households</i>	62 300	81 000	30%
Male lone person	28 000	33 500	19%
Female lone person	34 300	47 500	38%
<i>Usual resident of a non-private dwelling</i>	6 600	8 300	25%
Total	476 500	468 700	-2%

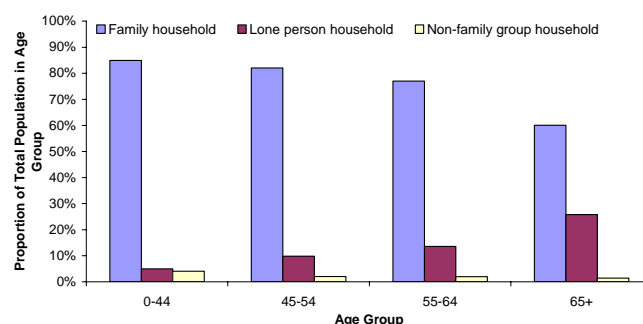
Source: ABS, *Household and Family Projections, Australia, 2001 to 2026, Cat No 3236.0 (Series II)*.

However, these projections are largely based on current trends and behaviours. Figure 21 shows that the family household is the current predominant living arrangement for all age groups. However, the number of lone person households increases in the older age groups. Within the non-family household classification are lone person households and group households, where two or more unrelated people live together.

Demographer Bernard Salt suggests that whereas previous generations accepted living alone in old age, the Baby Boomer generation may be more prepared to find new partners in their later years. He also suggests that those in the Baby Boomer generation may have a greater likelihood of forming same-sex companionship households as they retire, rather than living alone.

These predicted living arrangements are occurring to varying degrees at the moment, but there are disincentives, particularly for low income people receiving some form of government pension. Due to various pension criteria, the amount of pension received may be reduced depending on how living arrangements are classified.

FIGURE 21: HOUSEHOLD LIVING ARRANGEMENTS, AUSTRALIA, 2001



Source: ABS, *Mature Age Persons Statistical Profile, Living Arrangements, Cat No 4905.0.55.001 (based on ABS Census of Population and Housing, 2001)*.

Housing stock

These projected changes in household formation will impact on the demand and supply of different types of housing.

The current housing stock is not expected to meet the needs of future households, both in terms of size, accessibility, manageability and location. For example, staircases, bathrooms with no support railings, and narrow hallways and doorways can make living almost impossible once a person has reduced mobility and strength. Many houses are unsuitable for those confined to a wheelchair.

Such design problems may make it difficult to satisfy demand by some elderly people for appropriate private accommodation, as they become unable to remain in their own home.

In recent years, the average size of new houses has been increasing, despite the decline in the average number of inhabitants. The demand for these new larger houses is typically from younger families, where stairs present no obstacles. This trend, therefore, will not meet the future housing needs of more elderly Tasmanians.

Housing assistance

Nationally, around 12 per cent of people aged 65 years and over rent the property they live in.

²¹ ABS living arrangement projections (Series II), which assumes a lower rate of change of household structure by age over the next 20 years than the rate of change experienced over the past 20 years.

This proportion has changed little over the past two decades. If this trend continues, the absolute number of properties sought will double in 40 years. Less wealthy older people may experience difficulties in accessing affordable and appropriate housing in the decades ahead.

Low income and disadvantaged people of all ages are eligible for housing assistance either in the form of private rental assistance or public housing. There is currently unmet demand for housing assistance in Tasmania and meeting this demand is projected to become more difficult, partly due to population ageing and partly due to the stock of housing and demand requirements.

Ageing in place

Most older people choose to 'age in place' rather than move away from their community and families. However, changing healthcare needs, loss of mobility, financial concerns, and home maintenance are all impediments to this preference.

Generally, there are four main areas that elderly people need help if they choose to 'age in place'. They are:

- maintenance around their home, such as gardening and changing light bulbs;
- general living support, such as help with washing and getting dressed in the morning;
- meal preparation; and
- transport services.

While older age groups in the past preferred to 'age in place', future generations may have different preferences. This raises questions around what type of housing and caring services will be demanded in future decades.

For example, there may be changing preferences or increased demand for:

- community-based health services;
- informal care (eg in Japan 55 per cent of people aged 65 years and over live with their children, compared with 15 per cent in Australia);
- retirement villages, which may lead to increased demands to make land available for these villages, in many cases in close proximity to urban centres; or
- shared housing arrangements.

Residential care

Currently, around six per cent of those aged 65 years and over in Australia live in residential care (excluding most properties in retirement villages). The growth of elderly persons living in residential care has only been increasing nationally at around two per cent per year, below the growth rate of those aged 65 years and over.

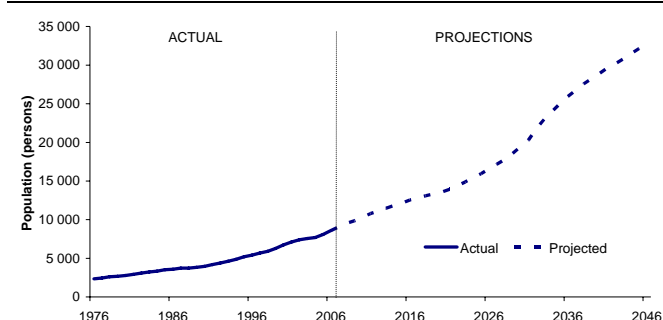
Currently around 30 per cent of people aged 85 years and over are in residential care, which compares with around one per cent only for those aged between 60 and 74.

This suggests that, using current trends, on average there will be over 100 extra people aged over 85 years demanding residential care services each year for the next 20 years. This increases to 200 extra persons per year, on average, for the following two decades.

Figure 22 shows one estimate of how the population of those aged 85 years and over may increase in future decades.

The demand for aged care places will have implications for land use, approvals and staffing for new care accommodation. Again, there will be demand to locate new accommodation close to urban centres.

FIGURE 22: TASMANIA'S POPULATION AGED 85 YEARS AND OVER – ACTUAL AND PROJECTED



Sources: ABS, *Population by Age and Sex, Australian States and Territories, Cat No 3201.0* and ABS, *Population Projections, Australia, 2004 to 2101, Cat No 3222.0*.

A key challenge in meeting this demand will be to ensure that new cared accommodation is affordable, well located and of appropriate quality.

However, the number of nursing home beds for public patients in Tasmania is currently in shortage and there is a concern that this shortage will worsen because of the Australian Government's formula for allocating funds for this purpose.

COMMUNITY SERVICES

Community services (including not-for-profit organisations,²² volunteers and informal carers) play a significant role in Tasmania. A range of important recreational and social services are provided through the community services sector. In particular, the sector delivers many services on behalf of governments.

The sector is broad in nature and involves a range of activities. Some services are provided by people on paid salaries, some primarily provided by volunteers and others use a mix of paid and voluntary workers.

As with the private and public sectors, the community services sector is likely to face skill shortages, whilst at the same time experiencing an increase in demand for many of its services.

However, an additional challenge that the community services sector will face is the supply, recruitment and retention of volunteers as Tasmania's population changes.

Volunteers

In 2000, nearly 7 per cent of the Australian workforce or 600 000 people had paid jobs in not-for-profit organisations. Around 4.5 million volunteers were also involved with the sector.

In Tasmania, in 2006, it is estimated there were around 131 000 volunteers²³ (representing 36 per cent of the adult population), in about 5 000 organisations.²⁴

These volunteers are found across all sectors — the not-for-profit, different levels of government and increasingly, in programs organised by the business sector. The volunteers include fire-fighters, ambulance workers, community transport drivers, health and community carers, teacher help in classrooms and at schools events, organisers and referees in sport and recreation, tourist, heritage and museum guides and conservationists.

Table 2 outlines the sectors that volunteers tend to participate in at the national level.

TABLE 2: VOLUNTEERING BY RECIPIENT SECTOR - AUSTRALIA

Recipient sector	% of Volunteers	Average hours per year
Arts or Cultural Associations	3.1	159
Australian Emergency Relief Services	4.8	119
Community or Welfare Services	33.9	119
Education	19.6	87
Environmental or Animal Welfare Groups	3.3	117
Health Services	8.5	126
Interest Groups	3.2	78
International Aid and Development Organisations	3.0	72
Medical Research	9.3	51
Recreational or Hobby Groups	3.0	162
Religious or Spiritual Organisations	15.6	136
Sporting Clubs	17.0	136
Other	0.4	143

Source: ACOSS (2005) Giving Australia: Research on Philanthropy in Australia: Summary of Findings, (www.volunteeringaustralia.org/files/3YKJZK4V2Z/GivingAustraliaSummary_000.pdf).

To understand how the projected demographic change may impact on the volunteering sector, it is useful to identify which age groups currently supply volunteers and how much time they dedicate to this activity. At a national level:

- a higher proportion of people aged between 35 and 44 are volunteers – about 40 per cent of people in this age group are volunteers; and
- a lower proportion of younger and older people are volunteers (about 27 per cent and 32 per cent respectively). However, older people volunteer more hours than any other age group. For example, 65 to 74 year olds volunteer about 2.5 hours per week compared to about 1.5 hours per week for middle-aged people.

Organisations that rely on volunteers are likely to face a range of challenges in the future — such as increasing demand for services and a decreasing pool of young volunteers, which may be needed for some activities.

In addition, the volunteers who will be aged 65 years and over in 2026 will have different views and attitudes to volunteering to those in the same age group today. They will not necessarily take on the same roles as the people aged 65 years and over do today; such as Meals on Wheels. Volunteers in the future are likely to prefer to volunteer in roles that reflect their skills and values. This changing preference is already being revealed through current volunteers who tend to seek different experiences to volunteers in the past.

²² In general, not-for-profits reinvest all funds back into the company. Although some staff might be paid a salary, there are no shareholders or profit-sharing schemes.

²³ ABS, Voluntary Work, Australia, Cat No 4441.0.

²⁴ Volunteering Tasmania.

These issues not only pose challenges for the not-for-profit sector but also for government and the community more broadly. If volunteering based services cannot meet demand in the future, the cost of many such services is likely to revert back to government and/or individuals in the community.

Box 4 illustrates the importance of volunteers for one not-for-profit organisation which may struggle to attract volunteers whilst experiencing an increase in demand for its services.

Box 4: Case Study

The Community Transport Services Tasmania (CTST) is an example of a volunteering service that is likely to experience difficulty attracting volunteers in the future as well as an increase in demand for its services.

CTST provides transport, on a door-to-door basis, for frail aged and younger disabled and those with functional disability for social, domestic and non-emergency medical purposes. (The non-emergency medical work accounts for 90 per cent of its activities.) Priority is given to Home and Community Care (HACC) clients (in line with funding) and spare capacity, if and when available, is provided to non-HACC clients.

A key objective of the service is to enable people to live in their homes as long as possible.

CTST has about:

- 4 000 registered clients;
- 6 paid staff;
- 430 volunteers, 30 of which serve as volunteer coordinators and the remainder as drivers and driver assistants; and
- 78 vehicles, including 31 buses and 27 sedans that are owned by CTST.

Based on a nominal \$16.00 per hour wage rate, the annual saving to governments resulting from the use of volunteers has been calculated as \$5.5 million.

Source: *Volunteering Tasmania Inc.*

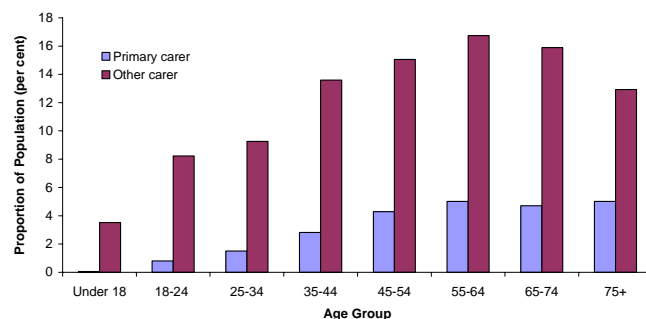
Carers

In 2003, there were approximately 2.6 million carers nationally who provided assistance to others in need because of age (60 years or older) or disability. This care is provided in a range of ways including assistance with self-care, mobility, health care and home help. Almost one-fifth of these were primary carers.²⁵

Of those providing informal care, around one million or 39 per cent were in the 35–54 year age range.

This age group's caring responsibilities involved children, partners and/or ageing parents. In Tasmania, there were around 69 500 carers in 2003, of which 14 600 were primary carers.

FIGURE 23: PROPORTION OF POPULATION PROVIDING INFORMAL CARE BY AGE, AUSTRALIA



Source: *ABS Disability, Ageing and Carers, 2003, Cat No 4430.0.*

Figure 23 illustrates the proportion of the population in each age group providing informal care, including primary care. The figure shows that caring responsibilities, including primary care, increase with age up to the 55–64 year age group and then declines for older age groups.

As Tasmania's population ages, it is expected that there will be an increase in the number of people requiring care due to age and/or disability, while at the same time there will be a smaller proportion of the population in the main care-giving age range, ie between 35 and 54 years.

Challenges

Challenges associated with volunteers are not the only constraint that some not-for-profit organisations may face in the future. Some non-government sector organisations that rely on donations from households may be affected by the decline in the working age population. Against this, some organisations may receive greater income from bequests in people's wills, as the death rate is projected to increase.

A further issue is that currently the agency that funds many activities provided by the not-for-profit sector is the Department of Health and Human Services, which is responsible for health services.

This agency faces increasing financial pressure to meet the demand for health services, including acute care hospital services. It has been suggested that, as a result, it may be constrained in its capacity to increase its funding for community care services provided by the not-for-profit sector.

²⁵ Primary carers regularly provide the majority of informal assistance with activities of daily living, such as self care, mobility and communication. ABS, *Disability, Ageing and Carers, Australia*, Cat No 4430.0

TRANSPORT & INFRASTRUCTURE

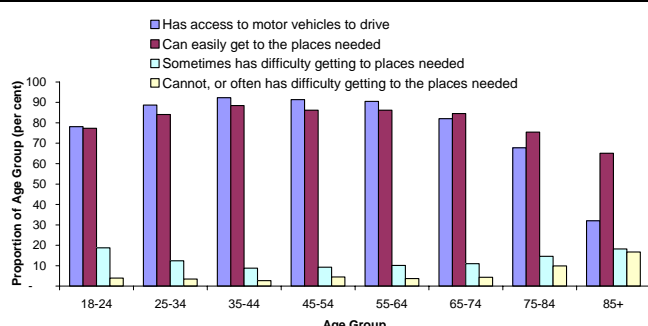
Transport

Appropriate transport systems for people as they age are essential for supporting daily living activities, including work and volunteering, and for accessing services (such as health, dental and learning facilities) all of which help to prevent social isolation.

A lack of access to transport due to problems of affordability, safety, availability, convenience, and appropriateness of the type of transport available can act as a barrier to people's participation in a range of social, civic and economic activities of mainstream society.

Figure 24 shows that the majority of people across all age groups can easily get to where they need to go to, due largely to having access to cars to drive. However, as access to (and ability to drive) cars decreases with age, there is a corresponding increase in the proportion of people who report that they sometimes, or often, have difficulty getting to places they need to go to.

FIGURE 24: TRANSPORT, AUSTRALIA, 2006



Source: ABS, General Social Survey: Summary Results, Australia, 2006, Cat No 4159.0.

It is expected that as the population ages the demand for more frequent and accessible transport services is likely to grow in all regions, particularly in urban areas.

An older population is likely to have significantly different public transport requirements from the current population. A larger proportion of the population is likely to have mobility restrictions and the pattern of demand for public transport services is likely to shift towards local transit, away from school and commuter transport.

Regular passenger transport services may no longer be suitable for the elderly as their physical mobility is restricted. The frail aged overwhelmingly dominate the need for transport assistance and will want an affordable and 'personalised' service to help meet their needs.

There will be demand for a 'door to door' service that provides assistance with vehicle boarding and carrying parcels. While the elderly may be less time-sensitive than some groups, they will need to be able to reach medical and other appointments at appropriate times, and they may have limited stamina to wait a long time for return trips at the end of the day. These characteristics limit the suitability of public and commercial bus transport. Costs often inhibit their ability to access taxis.

The issue of fitness to drive a motor vehicle will continue to be an important matter for both the individual and the community. The demand for cars suitable for older drivers is likely to increase. These cars are generally smaller than family cars.

Supporting access to health and human services through appropriate transport schemes for older people living in the community will become increasingly important. An ageing population will rely more on public transport and patient transport, both urgent and non-urgent.

Future public transport arrangements will also be affected by the impact of fewer children. As the number of schools, particularly primary schools, declines, this is likely to bring about changes to school transport arrangements, especially in rural areas.

Infrastructure

As Tasmania's population ages and changes, Tasmania's infrastructure requirements will change.

Urban planning will need to adjust to provide the community with the social and economic infrastructure that reflects the changing demands.

There is currently a trend for some accommodation for older Tasmanians to be built at some distance from population centres, largely because the land is cheaper. The development of such retirement villages prevents the residents from having close access to some services, such as medical practitioners, physiotherapists, recreational activities, retail and banking facilities, and library services.

New retirement village developments and other housing-related trends raise more general issues around future land use and the planning framework. In particular, future strategies for regional development will need to ensure that essential services, such as water and sewerage services, can be provided efficiently and effectively.

As Tasmania's population ages, the urban environment, such as footpaths and shopping centres, may also need to be modified to allow for greater accessibility.

If future governments have the objective of encouraging elderly Tasmanians to be independent, where possible, they will need to ensure that they have easy access to services and an appropriate public transport system.

This also requires a planning system that leads to outcomes, in terms of housing, community facilities (such as doctors and *Service Tasmania* shops) and central shopping areas, that meet the needs of elderly Tasmanians.

FINANCIAL SECURITY

The Australian retirement income arrangements have developed gradually and comprise three elements. These are the public age pension and other welfare payments; the compulsory superannuation contribution system; and voluntary savings and investments, such as additional superannuation contributions, housing and investments in shares and financial securities.

While Australia's retirement income system is well positioned to respond to the ageing of the population compared to arrangements in many other developed countries, there are groups within society that are not well placed for their retirement, such as:

- those who are long-term unemployed or are in casual employment who find superannuation accumulation more difficult; and
- single women, who, on average, tend to earn less than men and have interrupted careers due to child-rearing commitments.

The Australian Government currently provides the aged pension on a means tested basis. This is likely to become increasingly costly in future decades. As a result of the range of fiscal pressures that future Australian Governments will face arising from demographic change, there may be changes to the eligibility criteria for this aged pension.

It is expected that real incomes will increase in future decades. This should provide the opportunity to plan and save for retirement. The policy challenge will be to ensure that the right incentives are in place to promote saving for retirement. Effective regulation of the superannuation funds sector will also be critical.

Baby Boomers – how do they fare?

It is useful to look at the debt and wealth levels of Baby Boomers, because in the next 20 years this generation will represent the people aged between approximately 65 to 80 years.

Debt levels

AMP recently commissioned a study by NATSEM into the financial and economic impact of Baby Boomers, titled *Baby Boomers – doing it for themselves*.

The majority of Baby Boomer²⁶ households carry some form of debt, but the debt decreases with age. Nearly 90 per cent of Baby Boomer households in the 60 to 64 age group have paid off their home mortgages.

TABLE 3: PROPORTION OF BABY BOOMER HOUSEHOLDS HAVING DEBT, BY TYPE OF DEBT, 2004

Age	Any debt	Credit Card Debt	Rental Property Loans	Investment loans	Home mortgage	HECS debt
45–49	81.6	68.1	11.5	4.0	47.3	11.8
50–54	76.6	62.0	10.7	3.9	38.7	12.0
55–59	69.4	58.8	7.1	3.5	25.8	7.8
60–64	59.4	53.2	3.9	1.5	11.9	4.1
All	73.2	61.4	8.8	3.4	33.2	9.5

Source: AMP (2006) *Baby Boomers – doing it for themselves: AMP.NATSEM Income and Wealth Report Issue 16, March 2007*.

In 2004, the average debt for Baby Boomer households was an estimated \$59 000, with 73 per cent recording some level of debt. Of Tasmanian Baby Boomer households, the average level of debt was \$25 000, with 70 per cent of households carrying some form of debt. Tasmania's comparatively lower house prices, particularly when Baby Boomers were first entering the housing market, is one reason for Tasmania's lower debt levels.

Wealth

Despite the debt levels discussed above, Baby Boomer households are estimated to be the wealthiest households in Australia, accounting for half of total household wealth even though they only constitute 37 per cent of all households.²⁷

²⁶ For the purposes of this study and due to the data available, Baby Boomers were classified as being between 45 and 64.

²⁷ For further information about the definition and analysis of households refer to AMP (2006) *Baby Boomers – doing it for themselves: AMP.NATSEM Income and Wealth Report Issue 16, March 2007*.

Individually, in 2004, each Baby Boomer was estimated to have accumulated an average net worth of \$381 100.²⁸ This average level of net worth for Baby Boomers compares with an average net worth for all Australians of about \$292 500 per person in that year. Of Baby Boomer wealth, an average of \$161 000 was equity within a home, while an average of \$65 100 was superannuation.

These are averages and there is significant variation between the richest and the poorest. For example, the poorest quartile of Baby Boomers had an average of only \$10 900 of net worth in the form of superannuation and \$29 400 in home equity (Box 5).

On average, Baby Boomers should be well placed to afford to support themselves in retirement given low average levels of debt and relatively high average levels of wealth. However, this masks differences in wealth levels across the cohort. Furthermore, much wealth, particularly in the lower quartiles, is in home equity, which is difficult to access — although reverse mortgages are becoming a more frequently used tool for accessing 'home equity'.

Box 5: 'Rich' and 'Poor' Baby Boomers

Recent research conducted by the Australian Institute, found that there was a significant divide between 'rich' and 'poor' Baby Boomers.

"Among *high-income Boomers* the 'end-of retirement' idea has considerable relevance to their plans and attitudes. Many high income Boomers do indeed reject the traditional notion and see 'retirement' as a change of career, one in which they shift down a gear and enjoy the flexibility to pursue their interests.

The circumstances of *low-income Boomers* are very different. The poorer half of 50–65 year olds have virtually no wealth to fund their retirement years. They have a more traditional concept of retirement understood as a distinct and welcome transition from work to leisure, if they can have it.

However, many believe they will not be able to enjoy a traditional retirement because they will need to continue to work up to and beyond the retirement age for financial reasons. Unlike high-income Boomers, low income Boomers are mostly unhappy about needing to work beyond the retirement age.

Thus higher income earners expect to work beyond the retirement age because they *want* to while lower income earners expect to work beyond this age because they *have* to."

Source: Hamilton, M. and Hamilton, C. 2006, '*Baby boomers and retirement: Dreams, fears and anxieties*', Discussion Paper No. 89, The Australia Institute, Sydney.

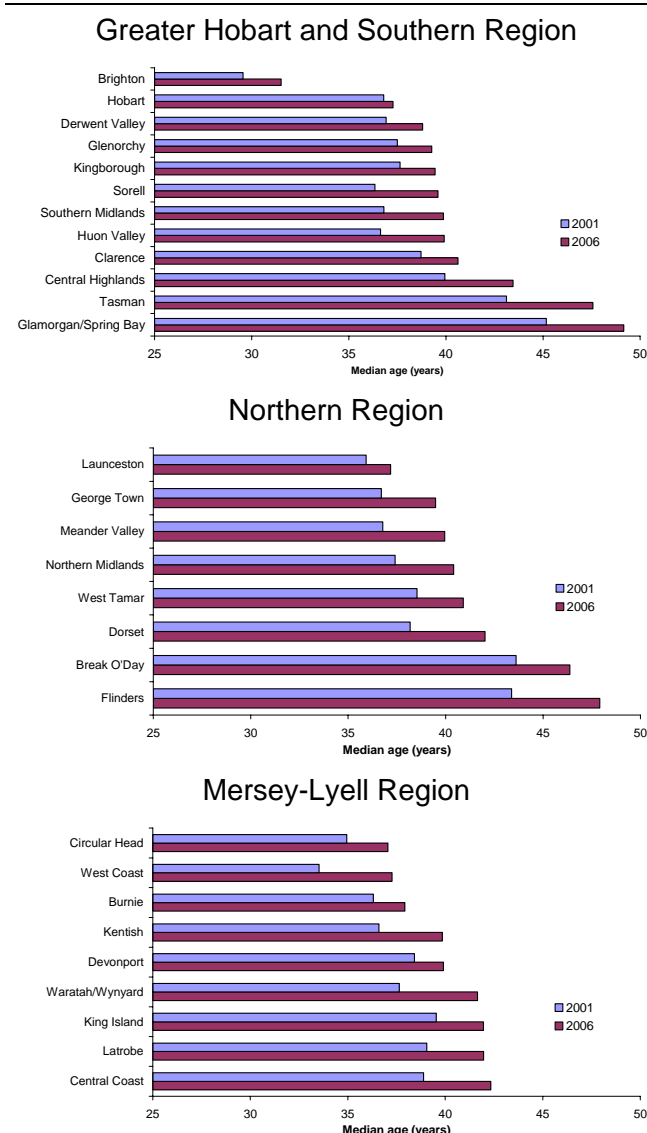
²⁸ Net worth is the sum of the value of assets – family home, contents, other property, money invested, shares, superannuation, vehicles, own business – minus any debts, such as those in Table 3.

OTHER SOCIAL ISSUES

Regional

Across Tasmania, there are large differences in the population structure and in the current and expected population trends. While Tasmania's median age was 39.3 years in 2006, there was a wide range within local government areas (LGAs). For example, the Brighton LGA had a median age of 31.5 years, while the Glamorgan/Spring Bay LGA had a median age of 49.2 years.

FIGURE 25: MEDIAN AGES IN TASMANIAN LGAs



Source: ABS, Census, 2001 and 2006.

The change in median age from 2001 to 2006 also varied significantly between LGAs. For example, there were only small increases in the larger urban LGAs, such as Hobart and Launceston, while the more regional LGAs, such as Tasman, Flinders Island and the East Coast, recorded large increases.

Populations in some municipalities are decreasing even though the State's population has been increasing. Some municipalities have much higher proportions of older persons and very low fertility rates. Tasmania's overall rate of population ageing is the average of some very different ageing rates at the LGA level.

Box 6: East Coast

The East Coast of Tasmania has seen a significant increase in people aged 60 years and over.

In 1991, 19.4 per cent of the population were aged over 60 years (compared with a State average of 16.2 per cent), while in 2005 this had grown to 26.9 per cent (compared with a State average of 19.7 per cent).

If this ageing trend continues on the East Coast, the community is likely to require different infrastructure and service requirements and there may be pockets of the community that experience social isolation.

Populations in regional areas will experience similar issues to the main population centres. However, some issues may be more pressing due to the isolation from some services and the greater share of people in lower socio-economic groups, often due to cheaper housing. Affordable transport will be a very important issue for rural communities, especially to access health and education services.

Recreation and entertainment

It is expected that there will be fewer younger persons in future decades. This will influence the range of recreation and entertainment activities available.

It has also been suggested that younger persons participate more in group activities, such as team sports, than older persons. Population ageing may therefore lead to some reduction in social networks.

FISCAL

As the share of elderly Tasmanians increases, the demand for some government services, many of which are provided at no cost or are heavily subsidised, will also increase.

However, as discussed previously, on average, elderly Tasmanians in future generations are expected to have greater wealth, especially in the form of superannuation, than the current generation.

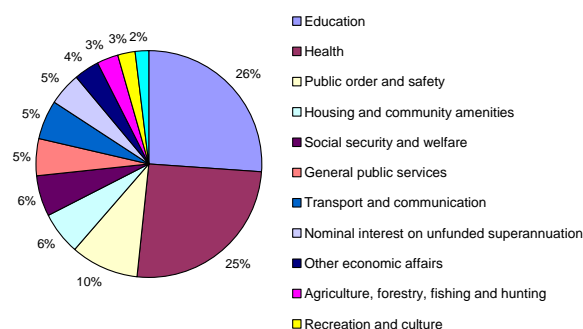
This raises questions around:

- the mix of government services that will be provided; and
- the extent to which governments, employers, insurance companies and individuals contribute to the cost of these services.

Governments are required to manage their finances on a sustainable basis and will need to balance their expenses against the revenue that they gain through taxes, fees and other sources of income.

The largest areas of State Government expenses are health, education and public order and safety.

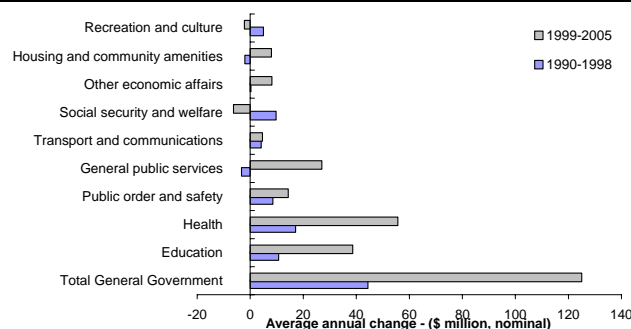
FIGURE 26: TASMANIAN GENERAL GOVERNMENT SPENDING BY PURPOSE – 2007–08



Source: Tasmanian 2007–08 Budget Paper No 1.

The mix of services provided by Tasmanian governments has varied significantly in recent decades. For example, the spending allocated to health, education and community services has increased significantly over the past 15 years, as Figure 27 shows.

FIGURE 27: CHANGES IN GENERAL GOVERNMENT EXPENDITURE – AVERAGE ANNUAL CHANGES



Source: ABS, Government Finance Statistics, Australia Cat No 5512.0.

Even though the number of children at public schools has declined, expenditure on education has increased at a faster rate than general government expenditure since 1999.

Demographic change is not the only driver of the projected increased fiscal pressure. While increasing health expenditure is a key factor underpinning the State's projected fiscal pressure, cost drivers other than the ageing population account for the majority of the expected expenditure increase.

These other drivers include:

- increased health costs due to the high cost of new technologies;
- the ability to successfully treat a greater range of ailments and diseases;
- increasing demand, in terms of quality and quantity, for health services;
- large salary increases; and
- limited opportunity to secure productivity improvements.

In addition, the above costs can be compounded by the extent of intrastate population movement, which has important implications for service planning and ensuring equitable access to services.

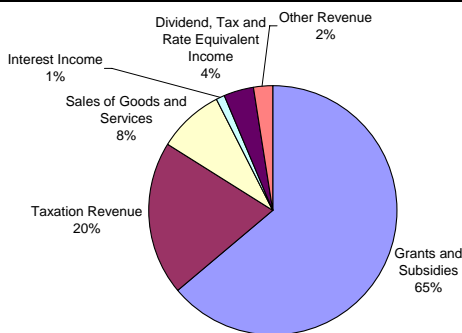
Technology and increasing community expectations of government services also lead to increases in costs. Examples include the level of information and communication technology in school classrooms and the demand for smaller class sizes and more teacher aides.

State taxation provides Tasmania with just over 20 per cent of its total revenue. Approximately 64 per cent of total revenue comes from Australian Government payments, mostly Specific Purpose Payments and GST revenues. The remainder of State revenue comes from dividends from its businesses, interest earned on investments and fees for goods and services.

The ageing of the population is likely to change the size and structure of the tax base upon which the State's revenues are based.

The Tasmanian Government derives most of its own-source revenue from stamp duties and taxes on payrolls, gambling and motor vehicles. A decrease in the working age population may have implications for state government revenue from payroll tax.

FIGURE 28: TASMANIAN GENERAL GOVERNMENT REVENUE – 2007–08



Source: *Tasmanian 2007–08 Budget Paper No 1.*

States and territories collect far less in taxes than they need to fund the services for which they are responsible. This vertical fiscal imbalance requires large transfers from the Australian Government.

Treasury has estimated²⁹ how Tasmanian Government revenue and expenditure could change in future decades. This provides an estimate of the fiscal pressure that governments could face, under current policies (no policy changes are made that affect revenue or expenditure). The modelling suggests that, under a no-policy-change basis:

- there will be significantly increased demand, and therefore costs, for health-related services, part of which is due to demographic change;

- the real cost of providing many government services is projected to increase due, in part, to an assumed absence of productivity gains in much of the public sector;
- the Government's net operating balance is not exposed to major underlying cost pressures over the next decade, but in the absence of policy action, after 2016 Tasmanian governments would face increasing operating losses;
- the State Government will become increasingly reliant on the Australian Government as a revenue source to fund its services; and
- the Australian Government will also be facing its own fiscal pressures in the decades ahead.

Similar results were obtained by other states when they performed similar modelling for their own jurisdictions.

Governments will adjust their behaviour over time to prevent increasing operating losses. However, it is not feasible to assume that:

- this problem can be ignored for the next decade or so; or
- future Tasmanian governments can simply increase taxes to meet the additional costs. This would result in Tasmania having a very uncompetitive taxation environment within Australia, as Tasmania will face these fiscal pressures before other states. This would constrain investment and migration into Tasmania, both of which are needed to grow the Tasmanian economy.

In summary, the underlying fiscal pressure means that future governments, and therefore the community more generally, will have to reassess their priorities and may have to face some important decisions.

Community debate around these important issues is therefore needed so that governments are better placed to start making decisions and introduce changes to address these emerging fiscal issues.

²⁹ Based on certain assumptions for demographic, economic and fiscal parameters. For example, assumptions have been made on the projected age-specific participation and unemployment rates, average hours worked and the labour productivity rate.

APPENDIX A

Demographic projections

The Australian Bureau of Statistics (ABS) released revised population projections for Australia and the states and territories on 29 November 2005. The national projections cover the period 2004 to 2101, while the state and territory projections cover the period 2004 to 2051.

The ABS produced 54 projection series using different combinations of assumptions.

The factors that influence age structure over time are the current age structure, fertility rates, life expectancy and migration patterns.

This report primarily uses population projection series 29, the assumptions of which are outlined in the table below.

Figure 4, which appears in the introductory section of the report, includes population projections for a high and low ageing scenario. The assumptions underpinning these population projections are also outlined in Table 4 below.

TABLE 4: ABS POPULATION ASSUMPTIONS: TASMANIA

	Fertility (TFR)*	Life expectancy	Overseas Migration	Interstate Migration
Medium ageing Series 29 (B)	TFR of 1.92	Declining growth in life expectancy from 2010–11.	Net gain of 550 persons per year.	Net loss of 1 000 persons per year.
High ageing Series 32	TFR of 1.70	Constant growth in life expectancy.	Net gain of 550 persons per year.	Net loss of 1 000 persons per year.
Low ageing Series 28	TFR of 1.92	Declining growth in life expectancy from 2010–11.	Net gain of 550 persons per year.	Net gain of 500 persons per year.

Sources: Australian Bureau of Statistics - Population Projections 2004 to 2101; November 2005 and ABS unpublished data.

* TFR is the Total Fertility Rate. It represents the number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life. TFRs are assumed to move downwards from the current level of 2.1 to the assumed levels by 2018 and remain constant thereafter. The assumed levels of net overseas migration and net interstate migration apply from 2007–08 and 2005–06 respectively.

The Tasmanian Department of Treasury and Finance has re-based the ABS population projections to include the 30 June 2005 and 2006 population estimates.

APPENDIX B

Submissions to the Discussion Paper

The Demographic Change Advisory Council received submissions and advice from the organisations and individuals listed below. This information provided valuable input that was taken into account in preparation of this Paper.

All 38 written submissions have been posted on the Council's website (www.dcac.tas.gov.au).

A P Servant	Tasmanian Department of Police and Emergency Management
ALP Moonah Branch	Tasmanian Department of Primary Industry and Water
Anglicare Tasmania	Tasmanian Fire Service
Australian Education Union (Tasmanian Branch)	Tasmanian Learning and Skills Authority
Australian Nursing Federation (Tasmanian Branch)	Tasmanian Library Advisory Board
Brian Collin	Tasmanian Principals Association
Council on the Ageing (Tasmania) Inc	Tasmanian Qualifications Authority
Community and Public Sector Union (Tasmanian Branch)	Tasmanian State Committee of the Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Dental Prosthetists Registration Board of Tasmania	Tasmanian State School Parents & Friends Inc
Dr Sheila Given	tasmanianjobs.com
Health and Community Services Union (Tasmanian Branch)	Tasmania Together Progress Board
Hobart City Council	Third Age Learning Network Tasmania
Launceston City Council	University of Tasmania (Academic Development Project)
National Disability Services (Tasmanian Branch)	University of Tasmania (Ageing and Social Planning Research Unit)
Pharmacy Board of Tasmania	University of Tasmania (Dementia Research Consortium)
Property Council of Australia (Tasmanian Division)	University of Tasmania (Department of Rural Health)
Shelter Tasmania	University of Tasmania (North West Rural Clinical School)
Sorell Council	Volunteering Tasmania Inc.
TAFE Tasmania	Wells Economic Analysis
Tasmanian Council of Social Service Inc.	
Tasmanian Department of Economic Development	
Tasmanian Department of Education	
Tasmanian Department of Health and Human Services	
Tasmanian Department of Infrastructure, Energy and Resources	
Tasmanian Department of Justice	

