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Income and Assets of New South Wales Baby Boomers in 2020

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NATSEM

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Abstract

The prospect of the baby boomers reaching retirement in the near future is an economic concern for most OECD countries. The future costs of their pension schemes and the escalating health care costs are coming on top of already stretched budgets.

In Australia, a three-pillar system (the three pillars being the Age Pension, compulsory and voluntary private savings) was introduced to alleviate some of this pressure on the pension scheme. The main component of this approach was the introduction of compulsory private savings through the Superannuation Guarantee introduced in 1992. But the SG may have been introduced too late for a very large proportion of the population – the baby boomers.

This paper presents examines the current and future financial circumstances of baby boomers in New South Wales and finds there may be a gap between expectation and reality, especially for those living in Sydney.

Author note

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General caveat

NATSEM research findings are generally based on estimated characteristics of the population. Such estimates are usually derived from the application of microsimulation modelling techniques to microdata based on sample surveys. These estimates may be different from the actual characteristics of the population because of sampling and nonsampling errors in the microdata and because of the assumptions underlying the modelling techniques.

The microdata do not contain any information that enables identification of the individuals or families to which they refer.

Contents

1 Introduction

1.1 The ageing problem

The pension systems of most OECD countries are 'in a state of flux' according to Disney and Johnson (2001). Each is currently suffering from increasing costs and is projecting even higher demand in the future. Each country is looking at ways to encourage self-provision in retirement and reduce the future cost of public (unfunded) pension schemes.

A combination of circumstances has created an ageing population that is putting increasing pressure on these pension systems. In most countries, the ageing is predominately due to three factors. First, there were a large number of people born in the post-World War 2 demographic of 1946-1964. These 'baby boomers' are now aged in their 40s and 50s and are fast approaching retirement. Second, birth rates have fallen steadily since the early 1970s. This has decreased the flow of young people into the age-pyramid. Third, people are living longer. This is increasing the 'stock' in the upper section of the age-pyramid. These three factors have combined to produce a population that has greater numbers of older people and fewer younger people. A consequence of this is an increase in the elderly dependency ratio – the ratio of people aged 65+ to the population of working age (see Table 1). The economic dimension of this elderly dependency ratio is one of the main reasons that most major industrial economies are concerned about the future of their pension schemes and escalating health care costs.

Table 1 **Elderly Dependency ratios** (population aged 65+ as a percentage of the working aged population)**, 1996**

	1960	1990	2000	2010	2020	2030
	%	%	%	%	%	%
Australia	**13.9**	**16.0**	**16.7**	**18.6**	**25.1**	**33.0**
Canada	13.0	16.7	18.2	20.4	28.4	39.1
France	18.8	20.8	23.6	24.6	32.3	39.1
Germany	16.0	21.7	23.8	30.3	35.4	49.2
Italy	13.3	21.6	26.5	31.2	37.5	48.3
Japan	9.5	17.1	24.3	33.0	43.0	44.5
Netherlands	14.7	19.1	20.8	24.2	33.9	45.1
New Zealand	n.a.	16.7	17.1	18.9	24.6	30.5
United Kingdom	17.9	24.0	24.4	25.8	31.2	38.7
USA	15.4	19.1	19.0	20.4	27.6	36.8

Source: Disney and Johnson, 2001 Table 1.5 p.12

From Table 1 it can be seen that the issue of an ageing population is very relevant to Australia. As highlighted by the release of the *Intergenerational Report* (Treasury, 2002), the government is well aware of this issue and has been working on it since 1989. At that time the government developed a retirement income policy based on three pillars – a public pension scheme, compulsory private savings and voluntary private savings. The public pension scheme has been in place since 1908, compulsory private saving through Superannuation Guarantee (SG) contributions were introduced in 1992 and range of favourable taxation treatments have been progressively introduced for voluntary contributions to superannuation. The government has clearly acted to address the issue.

But the government has a problem – it has put the three pillars in place but it may have put them in place too late to provide an adequate income in retirement for the large baby boomer group of Australians. Compulsory private savings through superannuation may have been introduced too late to have a significant impact upon the retirement incomes of this group and voluntarily saving for retirement has not been terribly well accepted. The complex and constantly changing nature of the superannuation taxation laws have not helped in this regard.

Until now the baby boomers have generally enjoyed a high standard of living. This was possible as their working years have aligned with times of high employment and comparatively high salaries. But the story in 2020 the story may be quite different. Most of the baby boomers will have left the labour force and will be living off their private savings and the government's Age Pension. But the pension is only 25 per cent of average earnings and the three pillar 'adequate retirement income' design expects that the pension will be considerably topped up by income from private savings. One thing that the baby boomers have not done well is to voluntarily save for their retirement. They know that they will live in retirement for considerably longer than previous generations and they have plenty of plans of what they will do during this time. In fact, many cannot wait for retirement and are choosing to enter their retirement phase early. Others are entering retirement earlier than they wanted through retrenchment. Overlooking the financial aspects of retirement may be the BIG mistake for baby boomers. They know what they want to do and they have the time to do it — but will they have the money?

What of baby boomers outside of the capital cities of Australia? The modelling of the baby boomer retirement incomes in Australia to date has only considered the circumstances of average men and women. But there are considerable differences between the circumstances of Australians living in the capital cities and those living in the rest of Australia. As will be discussed later in the paper, those in the capital cities have higher incomes, higher rates of employment and are wealthier than those living in the rest of the country. These features have resulted in the migration of the young to the capital cities and produced a regional Australia that is already older than the capital cities and is projected to age at a faster rate. The higher proportions of older Australians outside the capitals combined with lower incomes and wealth suggests the reliance of public pensions issue could be even greater in the regional Australia than in the capital cities.

In summary, the funding of public pensions with an ageing population is a global issue. In Australia, the government has taken a three-pillar approach to limit future costs – an approach that is based on a public pension supplemented by compulsory and voluntary private savings. But the baby boomers have not been great savers and there appears to be a large gap between what baby boomers expect they will be doing in 2020 and what their savings suggest they will be able to do. The higher proportions of older Australians living outside the capital cities suggest the issue could be even more critical in country Australia.

This paper presents a comparison of the circumstances of three groups of baby boomers, now and in 2020. The three groups are baby boomers living in a capital city (Sydney), those living outside a capital city (rest of NSW) and an average view (all baby boomers).

1.2 Approach

The National Centre for Social and Economic Modelling (NATSEM) has been actively developing a model to provide better projections in the areas of superannuation and retirement incomes (King *et al*., 1999). NATSEM's particular area of expertise lies in the usage of micro – or individual level – data, and in the development of microsimulation models using such data. Because the data and model operate at the micro level – with estimates for the entire population still being achievable by simply summing the individual records - they can provide much more detailed answers to questions about distributional impact. These models are particularly suited to modelling the individual employment and social paths people take during their lives.

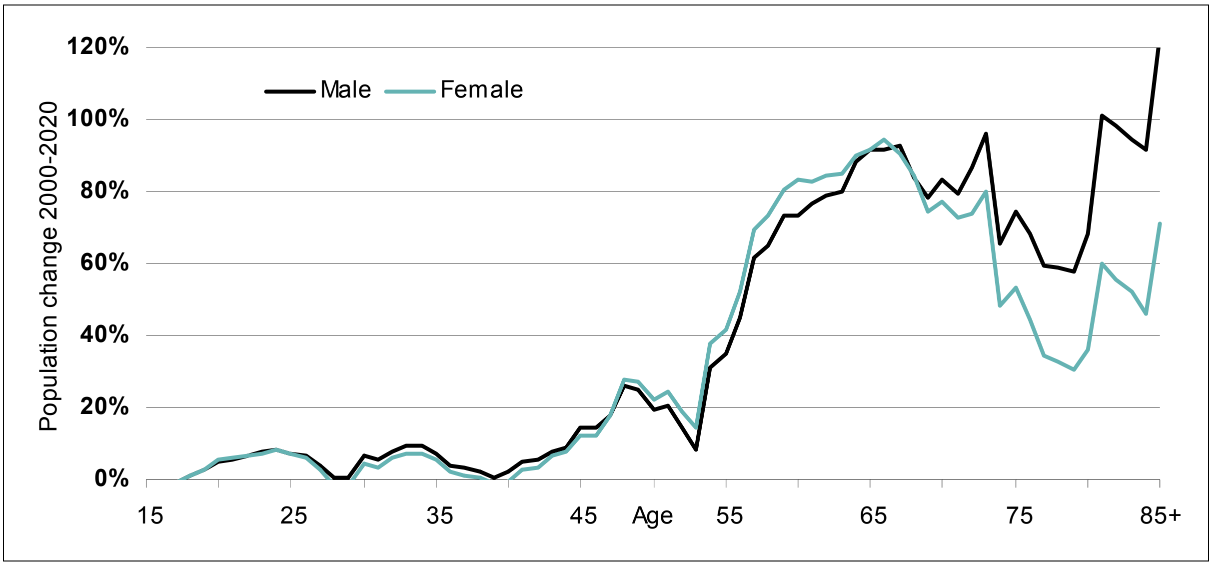
Using the NATSEM model we are able to estimate the superannuation outcomes for baby boomers and combine this with other asset and income information to estimate their circumstances at the present time and in the year 2020.

2 Population changes

2.1 An ageing population

Between June 2000 and June 2020, the population of Australia is projected to grow by more than 18 per cent from 19.2 million to 22.8 million (ABS, 2000, p. 70). However this growth is not evenly spread across all ages or all regions of Australia.

Figure 1 **Population change by gender and age, Australia, 2000-2020**

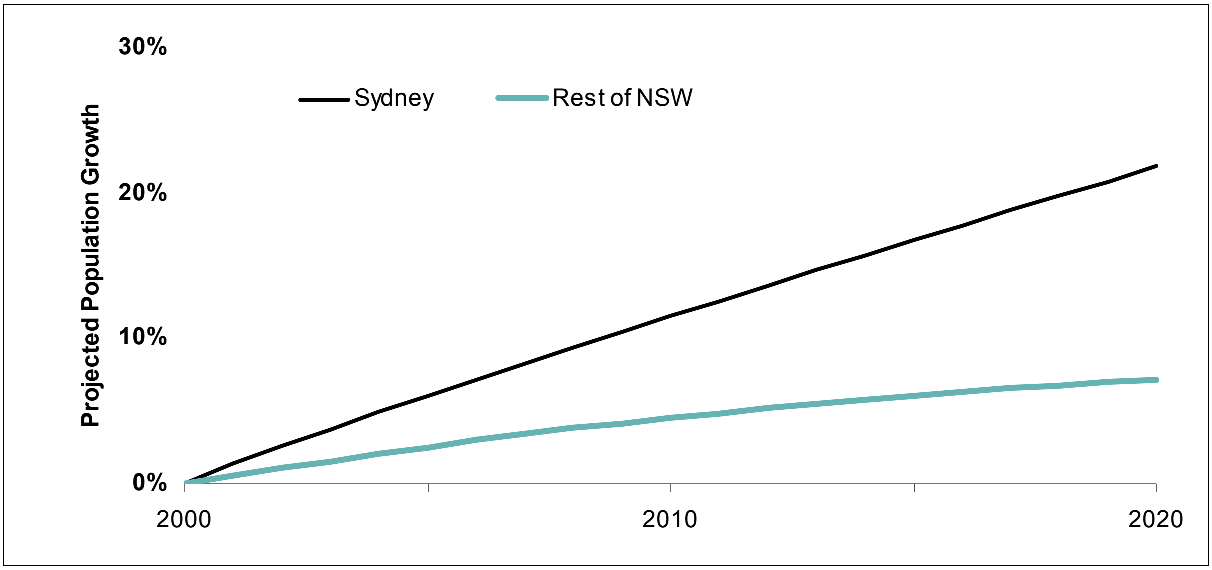


Note: The shaded area covers the Baby Boomers, i.e. those aged 56-74 in 2020.
Data source: Series II projections, *Population Projections, 1999 to 2101*, ABS Cat. no. 3222.0

The age-profile of the population of Australia will change considerably over the 20 years. For most ages up to 55 the number of people at any age will grow by less than 20 per cent (see Figure 1). For ages over 55, all ages will grow by at least 20 per cent with the average around 70 per cent. Clearly a population with the number of older members growing more than three times faster than younger members is going to age.

In addition to the differential growth by age, there is projected to be differential growth by region. For example, in Figure 2 it can be seen that the projected growth in the capital of New South Wales, Sydney, is significantly higher than the growth in the rest of state. Sydney will grow by 21.8% from 4.1 million to 5.0 million while the rest of NSW will grow by only 7.2% from 2.4 million to 2.6 million. Part of this growth is as a result of Sydney attracting far greater immigrants. The projected net overseas migration for Sydney is around 25 times higher than the rest of the state (90,000 and 3,800 per year under ABS population's series II projections) (ABS 2000 pp. 78-79). No matter what the reason, Sydney is projected to grow faster than regional NSW over the next two decades.

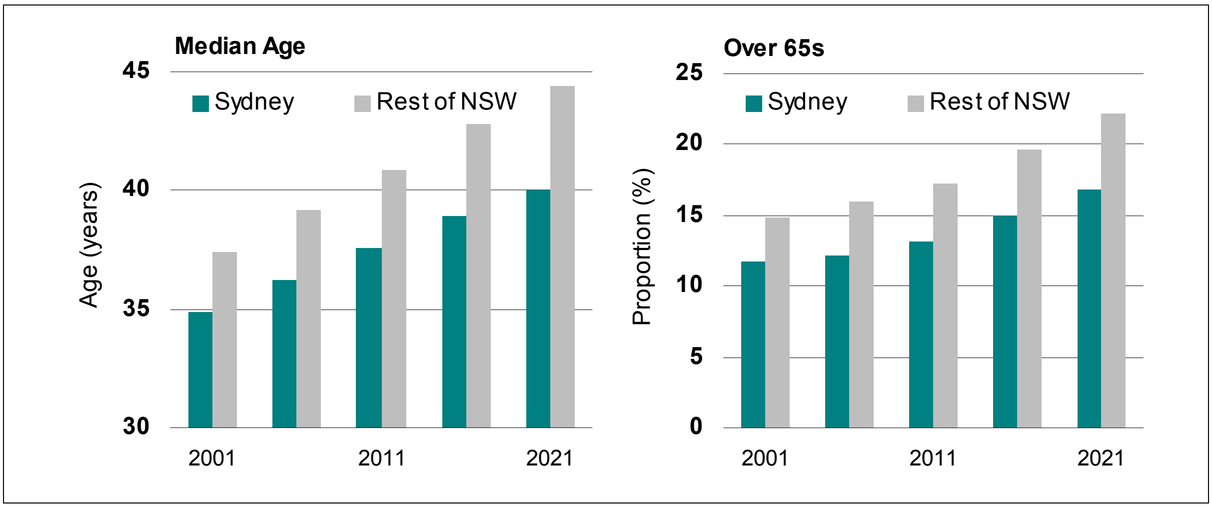
Figure 2 **Population Growth in Sydney and the Rest of NSW, 2000-2020**



Data source: Series II projections, *Population Projections, 1999 to 2101*, ABS Cat. no. 3222.0 Table 4.16

The combination of differing age growth rates and regional growth rates will produce resident-age profiles that change considerable over the next two decades. In Figure 2 evidence of this change for Sydney and the Rest of NSW is apparent. The median age in Sydney is already more than two years lower than the remainder of the state (34.9 and 37.4 years respectively) and only increases by 5.1 years over the 20 years from 2001 while the median age in the rest of the state increases by 7.0 years. Sydney is ageing but from a lower starting point and at a slower rate than the remainder of the state.

Figure 3 **Median age and proportion of population aged 65 and over, Sydney and Rest of NSW, 2001-2021**



Data source: Series II projections, *Population Projections, 1999 to 2101*, ABS Cat. no. 3222.0, Table 4.19

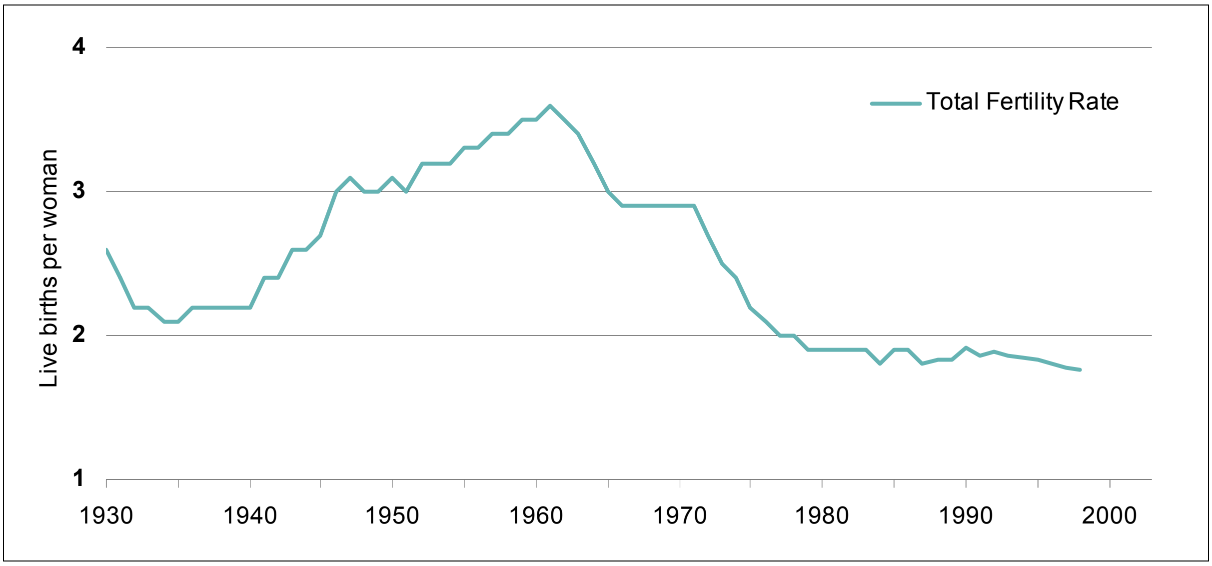
Turning to the over 65s in Figure 3 the same conclusion is apparent. Sydney currently has a lower proportion of over 65s and the proportion is projected to grow at a slower rate than its surrounding counterparts. The overall lower growth rate of the non-capital part of the state, evident in Figure 2, combined with the higher median age produces a larger increase in the proportion aged 65 and over (5.0% and 7.3% respectively) from a population that already has a high number of over 65s.

Sydney currently has a younger median age than the rest of NSW and it is projected to grow faster and age slower in the future.

2.2 Who are the baby boomers?

In the years following World War II, the number of births rose to over 3.0 live births per woman. It was the first time the fertility rate had been at this level since the early 1920s. The fertility rate stayed above 3.0 until 1965 (see Figure 4).

Figure 4 **Total Fertility Rate, Australia, 1930-2000**



Data source: Births, Australia, ABS Cat. no. 3301.0

This high birth rate combined with high levels of immigration has produced a large number of Australians – the baby boomers – who, in 2001, were aged between 37 and 55.[1] In 2001, there were 5.5 million baby boomers. Of this number, 1.85 million lived in NSW – 1.16 million in Sydney and 697 000 in regional NSW.

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1 The definition of a baby boomer is not really as strict as described here. The term is an international one and while the start year is always referred to as the first post-war year (1946), the last year is not quite so rigid. It can vary from 1960 to 1965 (for example, Salt 1999 p.3 sets the end date as June 1961). The most common end year is 1964 and that is the year I use in the remainder of this paper.

3 Characteristics of the baby boomers

3.1 Current characteristics

In Table 2 the proportion of baby boomers by gender, qualifications, marital status and family type are presented for various parts of NSW and Australia. The percentages relate to 1998 when the baby boomers were aged from 34 to 52 years. The columns show the statistics for baby boomers living in Sydney, baby boomers living in the rest of NSW and all baby boomers. The average values for all adult Australians are also included for comparison.

Table 2 **Characteristics of baby boomers and adult Australians by location, 1998**

	Baby Boomers			All Adult
	Regional NSW	Sydney	All Baby Boomers	Average
	%	%	%	%
Qualifications				
Degree	10.2	19.5	15.6	12.7
Diploma	9.5	11.3	10.6	8.9
Vocational	29.8	23.4	22.8	22.0
None	50.5	45.8	51	56.4
Marital status				
Never married	8.8	11	9.2	22.0
Separated, widowed & divorced	11.7	12.2	11.9	13.8
Married/de facto	79.5	76.8	78.9	64.1
Family Type				
Couple with dependents	48.9	52.6	53.1	30.2
Couple only	30.3	23.2	25.2	33.3
One parent with dependents	5.5	5.9	5.3	3.8
Lone person	15.3	18.2	16.4	32.6
Selected Dwelling Types				
Separate house	93.5	76.6	87.9	83.5
Terrace/town house (1 storey)	3.5	3.9	3.6	4.9
Terrace/town house (2+storeys)	1.1	4.7	2	2.4
Flat/unit/apartment	1.4	14.6	5.9	8.6

Note: *Baby Boomers* are defined in the table as those aged 35-54 in 1998

Adult Australians refers to Australians aged 15+ but excludes persons aged 15-24 years who are full-time students, live with a parent, guardian or other relative and who do not have a spouse or offspring of their own living with them .

Source: NATSEM estimates based on ABS 1997-98 Survey of Income and Housing Costs, unit record data

The characteristics of baby boomers in general are not unexpected given their age. Generally they are married with dependent children still at home and their home is a separate house. However, on a regional level there are significant differences. The regional NSW baby boomers are less likely to have a degree or a diploma but more likely to have a vocational qualification or no post-school qualifications at all, they are more likely to be married and live in a separate house and it is more likely their children have already left home.

Sydney baby boomers are also quite distinctive. They are more highly qualified than other baby boomers, they are more likely to be separated, widowed or divorced and they are more likely to be living alone in a multi-storey town house or apartment.

Table 3 **Employment characteristics of Australian averages and baby boomers by location, 1998**

	Baby Boomers			All Adult
	Rest of NSW	Sydney	All Baby Boomers	Average
	%	%	%	%
Employment Status				
Employee - full time	52.5	60.6	59.2	47.6
Employee - part time	19.8	15.3	16.5	12.7
Unemployed	4.5	2.4	4.6	5.1
Not in the labour force	23.2	21.6	19.7	34.6
Selected Industries				
Agriculture, forestry & fishing	5.6	0.5	3.8	3.2
Mining	1.4	0.3	0.7	0.7
Manufacturing	6.6	11.8	10.2	8.2
Electricity, gas & water supply	2.2	0.6	0.9	0.6
Construction	4.9	4.1	4.8	4.4
Wholesale	2.7	4.7	4.5	3.3
Retail	11.5	6.7	8.4	7.3
Finance	2.1	3	2.5	2.3
Property & services	4.9	13.5	8.2	6.8
Government administration	4.0	2.3	3.5	2.5
Selected Occupations				
Managers/administrators	6.8	7.4	7.8	5.3
Professionals	9.6	18.1	15.3	11.1
Associate professionals	9.9	8.3	9.7	6.8
Tradespersons	10.3	7.7	8.8	8.3

Note: *Baby Boomers* are defined in the table as those aged 35-54 in 1998

Adult Australians refers to Australians aged 15+ but excludes persons aged 15-24 years who are full-time students, live with a parent, guardian or other relative and who do not have a spouse or offspring of their own living with them.

Source: NATSEM estimates based on ABS 1997-98 Survey of Income and Housing Costs, unit record data

The employment characteristics of the baby boomers also vary on a regional basis. As shown in Table 3, in general the baby boomers are likely to be in full-time employment and employed as a manager, professional or associate professional. In general, the preferred industries of baby boomers are the agriculture, forestry &

fishing industry, the wholesale industry, and government administration but this varies on a regional basis.

The baby boomer cohort has the highest proportion in full-time employment at around 60 per cent whereas the average is 48 per cent for the all adults. Of the baby boomers, those living in Sydney are more likely than those in the rest of NSW to be employed full-time and, as a result, less likely to be employed part-time, unemployed or not in the labour force.

Not surprisingly very few baby boomers in Sydney are employed in the agriculture, forestry & fishing industry with only 0.5 per cent reporting being employed in this industry against an average of 3.2 per cent for all adults. Regional NSW, again not surprisingly, reversed these figures with 5.6 per cent being employed in the agriculture, forestry & fishing industry.

Other industries also follow our expectations with Sydney baby boomers being over-represented in manufacturing, wholesale, finance, and property & services and under-represented in mining and construction. The baby boomers from the rest of NSW are over-represented in mining, electricity, gas & water supply, retail and government administration.

The observation that a higher proportion of baby boomers are occupying management, professional and associate professional positions than other ages is interesting. It seems that these people are near the top of their career despite being aged less than 55.

3.2 Income and wealth

In the previous section it was shown that the employment characteristics and general characteristics of baby boomers differ from other Australian adults and that baby boomers living outside the capitals are quite different to those living in the capital cities (at least this was shown to be true for NSW). We now look at the income and wealth of the baby boomers.

Income

Table 4 shows the various sources and levels of income received by baby boomers in various parts of Australia. This table uses the same regional breakdown as the previous table and income figures for the 1998. However the income values have been inflated to December 2002 dollars.

Table 4 **Average total personal income by source, 1998** (Dec 2002 dollars)

	Earnings	Government benefits	Superannuation Income	Investment Income	Other Income	Total Income
Baby boomers	$	$	$	$	$	$
Rest of NSW	19,900	2,300	200	200	400	23,100
Sydney	31,100	1,500	100	1,600	500	34,800
All baby boomers	25,400	1,900	100	800	400	28,700
All Adults	18,400	2,900	500	1,000	300	23,100

Source: NATSEM estimates based on ABS 1997-98 Survey of Income and Housing Costs, unit record data

On average the baby boomers have higher incomes than other adults. The baby boomer average is $28,700 while the overall average is more than $5,000 less at $23,100. Despite the high average total incomes of baby boomers, there are considerable regional differences. In country NSW, baby boomers have the same total average income as other ordinary Australians – $23,100. In Sydney the average total income of baby boomers is $34,800, almost $12,000 more than the average person or their country baby boomer counterparts.

The main reason for the regional difference appears to be earned income. Earned income of regional NSW baby boomers is $5,600 less than the baby boomer average and $11,700 less than their counterparts in Sydney. Government benefits for those in country NSW do claw back around $800 but the gap is still significant.

The previous section highlighted that the proportion of Sydney baby boomers in full-time employment is higher than the rest of the state. This high level is perhaps the reason for the higher earned income. To examine this hypothesis, we can limit the income comparison to those employed full-time (see Table A1 in the Appendix). This comparison shows that Sydney baby boomers in full-time employment on average earned $46,100 while those in the Rest of NSW earned $32,900 – a difference of $13,200. The gap is wider when only full-time employees are considered.

The earnings of Sydney baby boomers employed full-time are 40 per cent higher than those employed in the same circumstances in the rest of NSW while those employed part-time have earnings 50 per cent higher. The slightly higher government benefits received in the country do not compensate for this difference.

Overall, Sydney baby boomers have higher income and have a higher proportion in full-time employment.

Wealth

NATSEM has used income data collected by the ABS and other sources to estimate the value of major assets owned by people (Kelly, 2001). When looking at the following statistics it is important to keep in mind that we are looking at the personal wealth of individuals. For those living as part of a couple, all of their joint wealth has been divided equally between them, with the sole exception of superannuation, which has been left in the name of the person reporting it. The asset results for baby boomers and all adult Australians in 1998 are shown in Table 5.

Table 5 **Average personal wealth by asset type, 1998** (Dec 2002 dollars)

	Deposits	Shares	Home equity	Rental Prop equity	Super	Wealth
Baby boomers	$	$	$	$	$	$
Rest of NSW	6,300	3,900	70,900	12,600	34,500	128,100
Sydney	10,100	7,600	143,600	24,100	33,400	218,800
All baby boomers	9,100	10,600	92,900	13,600	33,600	159,800
All Adults	14,300	14,200	78,900	10,100	28,800	146,200

Source: NATSEM estimates

As Table 5 shows, the average personal wealth in 1998 (in Dec 2002 dollars) of baby boomers was $159,800, compared with the overall average for all adult Australians of $146,200. While no one asset is significantly different from the average, three assets owned by baby boomers are above the average – home equity, equity in rental property and superannuation.

The average wealth of baby boomers living in Sydney is the highest ($218,800). This is 70 per cent more wealth than baby boomers living in the remainder of New South Wales ($128,100) and 37 per cent higher than the overall baby boomer average. While the majority of this extra Sydney baby boomer wealth is in the form of housing equity (they have double those in the rest of NSW), they also have significantly more cash in the bank, shares and rental property equity. The only asset that is the same as their country counterpart is superannuation.

The lower than average levels of cash assets and shares owned by the baby boomers is perhaps an indicator of their 'consume rather than save' approach to life.

3.3 Current Summary

The baby boomers have higher than average incomes and have managed to build wealth but it generally through buying their own home and compulsory superannuation. In NSW, Sydney baby boomers are higher qualified, more likely to be in full time employment, have higher paying jobs and have considerably more assets than baby boomers living in the rest of state. However, these attributes are balanced by Sydney baby boomers being more likely to be separated, divorced or widowed and more likely to be living alone in a multi-storey town house or apartment.

4 Baby boomers in 2020

Having considered the current situation of the baby boomer cohort, let's have a look at their situation in 2020.

In 2020, there will be 5.0 million baby boomers aged from 56 to 74 years. 1.7 million will live in NSW. If they replicate the behaviour patterns of older birth cohorts, the profile of the baby boomers will have changed considerably by 2020. As shown in Table 6, three-quarters will no longer be in the workforce in 2020 whereas less than one-quarter were out of the labour force in 1998. The number of baby boomers who have separated, divorced or been widowed will have increased from around 12 per cent to 21 per cent and as a result more than a quarter will be living alone in 2020. For those still married, the family structure will have changed, with very few having children around the house.

Table 6 **Estimated characteristics of NSW baby boomers in 1998 and 2020**

	Rest of NSW		Sydney	
	1998	2020	1998	2020
Employment Status	%	%	%	%
Employee - full time	52.5	15.9	60.6	21.1
Employee - part time	19.8	8.3	15.3	7.0
Unemployed	4.5	0.8	2.4	0.4
Not in the labour force	23.2	75.1	21.6	71.5
Marital status				
Never married	8.8	5.4	11.0	6.8
Sep, divorced or widowed	11.7	20.9	12.2	21.7
Married or de facto	79.5	73.7	76.8	71.5
Family Type				
Couple with dependants	48.9	2.3	52.6	4.2
Couple only	30.3	70.8	23.2	66.6
Lone parent with dependants	5.5	0.3	5.9	0.0
Single person	15.3	26.6	18.2	29.2

Note: *Baby Boomers* refers to those aged 35-54 in 1998. The table assumes that the characteristics of those aged 56-74 in 1998 are an appropriate estimate of the baby boomers circumstances 22 years later.

Source: NATSEM estimates based on ABS 1997-98 Survey of Income and Housing Costs, unit record data

On a regional basis, the current differences between those in Sydney and the rest of the state will remain in 2020. The preference for Sydney baby boomers to stay in employment will result in a higher proportion of country NSW baby boomers being out of the labour force than those in the city (75.1% and 71.5% respectively). Those in the rest of NSW will be less likely to be separated, divorced or widowed and less likely to be living alone.

Clearly, the period until 2020 is a time of transition for baby boomers.

4.1 Baby boomers' financial situation in 2020

The income of baby boomers will be considerably different for most baby boomers in 2020. As shown in the previous section, 70-75 per cent will have retired and their income will be coming from their savings and the Age Pension (provided they are aged 65+). We know that baby boomers are better consumers than savers and their savings will consist mainly of home equity and compulsory SG contributions. It seems most unlikely they will want to sell their house to finance their retirement and so it appears the income of the baby boomers in 2020 will depend mainly on the amount they have put into superannuation and the rate at which they are willing to draw it down.

Most retirement advisors and financial planners estimate that a person will need a retirement income equivalent to around 70 per cent of their annual pre-retirement income to be financially comfortable (see for example ASFA, 2000). Making the assumption that current incomes are equal to pre-retirement income, this equates to Sydney baby boomers requiring an income of $25,000 per annum and the rest of NSW baby boomers requiring $17,000.

If a baby boomer has reached 65 years by 2020, they will be eligible for the Age Pension (maximum rate of $11,000 per annum for a single) and their private savings will need to make up the $6-14,000 shortfall per year. In fact, the government is hoping that its three pillars approach would allow a retiree make a significant contribution and the government could then reduce its public pension contribution.

If the baby boomer has chosen to retire early (or was forced to) then they will have to have enough superannuation and savings to provide an income of between $17-25,000 per year until they reach 65 and then enough superannuation remaining to top up their pension for the rest of their life. If the person does not wish to draw down their savings after 65 the amount required post-65 equates to $300,000 for baby boomers in the rest of NSW and over $400,000 in Sydney. Remember that currently the average baby boomer has a balance of around $33,000 in superannuation and only small amounts of other savings.

I f a baby boomer stays in the labour force until 2020, they may not be earning a lot more than they were in 1998 after adjustment for inflation. However, from a retirement income perspective, continuing in the labour force until 2020 will have a significant benefit for baby boomers in that their superannuation will have grown considerably through the extra years of superannuation contributions.

Using a NATSEM simulation to estimate superannuation in 2020 (Kelly *et al.* 2002), Table 7 shows the average balance of those people who are still in the workforce. It can be seen that the average superannuation balance has increased from the approximately $33,000 that baby boomers have now (Table 5) to almost $120,000 in 2020.

Table 7 **Estimated average superannuation balance for those not retired, 2020 (**1999 dollars**)**

Age	Males	Females	Persons
	$	$	$
15-19	330	198	267
20-24	5,062	3,291	4,187
25-29	16,829	10,671	13,762
30-34	34,201	20,240	27,170
35-39	57,968	32,115	45,274
40-44	84,861	47,067	65,853
45-49	116,097	66,600	89,085
50-54	144,845	77,155	105,674
55-59	172,049	87,841	117,651
60-64	205,332	99,204	119,709
Overall	63,264	42,747	52,286

Note: The shaded area covers the Baby Boomers, i.e. those aged 56-74 in 2020.
Source: NATSEM simulation (see Kelly, Harding and Percival 2002)

A male baby boomer retiring in 2020 with $200,000 in superannuation would have a retirement income of $18,500 without drawing down the amount invested (income of $12,000 from investments and a reduced pension of $6,500[2]). This is sufficient to provide 70 per cent of pre-retirement income for a country NSW baby boomer but is still considerably short of the retirement income required in Sydney. A female baby boomer retiring in 2020 will be lucky to have enough for a comfortable retirement. The $100,000 the average 64-year-old woman will collect would add less than $6,000 to her pension of $11,000, leaving her with barely 70 per cent in the country and well short in Sydney.

From these initial estimates it is clear that if a comfortable retirement income is desired, the option of early retirement must be dropped. Even with men and women working to age 64/65, the average person will not have access to a retirement income that allows them to prosper. To live comfortably in retirement in Sydney requires an income of at least $25,000 (if the financial planners are correct) and it appears even working until 2020 the average baby boomer will have this level of income without drawing down their savings.

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2 This assumes the baby boomer is 65+. The reduced pension assumes all of the superannuation is assessable under the pension means-test. Investment of the superannuation funds in a variety of ways could reduce or exempt the assessable amount and increase the pension payable.

5 2020 outcomes

In the early 1990s the government recognised that a combination of public and private funding of retirement was required to achieve its goal of delivering fair and adequate retirement incomes. The looming ageing population meant that a system based almost solely on government support would not be sustainable. The three pillars (a public pension system, compulsory private savings and voluntary private savings) were born.

The second pillar (compulsory private savings) was firmly put in place in 1992 with the introduction of the SG. In theory, it would produce a win-win situation. The retiree would have a greater retirement income, an income that was better able to meet their lifestyle expectations. For the government it was a win as the strain on the public purse would be reduced. Will the theory match reality?

5.1 SG not effective for baby boomers

The calculations in the previous section have shown that the SG is a significant component of people's savings. In the long term the compulsory nature of the SG will have a significant impact on the retirement incomes of the aged. However, its impact is not significant on the baby boomers, a large cohort currently starting to enter retirement. A plethora of circumstances have combined to negate the impact of the compulsory private savings pillar on this generation. The introduction of SG in 1992 means that most baby boomers will have contributed for around 20 years by the time that they retire and this is not long enough to accumulate funds that will provide significant long term retirement income. The trend to early retirement, especially for men, is further reducing the accumulation phase and the impact superannuation can have on their retirement incomes. In some cases the decision to retire early is involuntary but, in other cases, people are taking early retirement because they have access to their superannuation funds (i.e. the money is burning a hole in their pocket). The earlier calculations have shown that, on average, the decision to take the money early is shortsighted. The decision to retire early will generally result in a life in retirement that is well short of being financially comfortable.

5.2 Capital versus the rest of the State

Baby boomers in Sydney have higher incomes than those in the rest of the state but in retirement they will be less comfortable than those in the country. Using the assumption that 70 per cent of current income is required in retirement, the modelling done here suggests that folk from Sydney will not have enough assets in retirement to supplement their pension to maintain a comfortable stand of living.

Baby boomers in the rest of the state are projected to have just enough. However, we have assumed that country people only need 70 per cent of what they earn now. This is a debatable assumption. There is a low income limit to this assumption and it could be that baby boomers in country NSW are already at this lower limit.

6 Conclusion

The baby boomers are entering a period of transition. Most are currently working and have children at home. In the next 20 years most will quit work, their children will leave home and some will start living alone. Increased life expectancy means they will live considerably longer than their parents and they have plenty of ideas about what they will do with the time. But will they have the retirement income to support this expected lifestyle? This paper suggests that for the average Sydney baby boomer it is most unlikely they will have enough and the average baby boomer in the rest of the NSW will just have enough, but only because they are used to living on less.

The results found using NATSEM's dynamic microsimulation model are preliminary and have a number of significant underlying assumptions. The dynamic nature of the model means that significant resources need to be put into validating every part of the model before the outcomes are truly reliable. While this validation is well underway, the process is not complete. However, the results to date are very interesting and the level of detail unparalleled.

A Additional statistical table

Table A1 Average current personal income of baby boomers and all adults by employment status and income source, 1998 (Dec 2002 dollars)

	Earned Income	Government Benefits	Superannuation Income	Investment Income	Other Income	Total Income
	$	$	$	$	$	$
Employee - full time						
BB- Country NSW	32,900	300	100	300	100	33,700
BB- Sydney	46,100	300	100	1,500	100	48,100
BB- Rest of Aust	36,900	500	100	600	200	38,200
BB- All	38,400	400	100	800	100	39,800
All Adults	34,700	400	100	700	100	35,900
Employee - part time						
BB- Country NSW	13,000	3,000	0	0	700	16,600
BB- Sydney	19,600	1,200	100	2,500	300	23,600
BB- Rest of Aust	14,900	1,900	0	700	200	17,800
BB- All	15,500	1,900	0	1,000	300	18,700
All Adults	14,100	2,000	100	800	300	17,400
Unemployed						
BB- Country NSW	0	7,400	0	-300	400	7,500
BB- Sydney	0	7,100	100	400	400	7,900
BB- Rest of Aust	0	7,300	100	0	1,300	8,700
BB- All	0	7,300	100	0	1,100	8,500
All Adults	0	6,600	100	100	600	7,400
Not in the Labour Force						
BB- Country NSW	400	5,400	400	400	1,000	7,500
BB- Sydney	700	4,400	200	1,300	1,900	8,400
BB- Rest of Aust	600	5,400	500	800	1,200	8,500
BB- All	600	5,100	400	800	1,400	8,300
All Adults	200	6,300	1,100	1,700	500	9,800

Source: NATSEM estimates based on ABS 1997-98 Survey of Income and Housing Costs, unit record data

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