



Australia's ageing population and its implication for our future

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The ageing population has many implications for the vocational education and training sector. Already there has been a notable increase in the proportion of older students studying in VET compared to the situation in the early 1990s. In 2001, students over 40 years of age comprised around 29 per cent of the vocational education and training student population compared to less than 18 per cent of students in 1990.

The issue relating to an ageing population that is addressed in this paper is the role that the vocational education and training sector can play in assisting the nation achieve intergenerational equity. The emerging issues for Australian society and the economy from an ageing population were the focus of the *Intergenerational Report* released by Treasurer Costello in the 2002-03 Commonwealth budget papers.

The impact of demographic change

In Australia, older workers account for an increasing proportion of the workforce because of demographic change. The population profile of people aged 15 years and older in 1990 and 2002 is shown in Table 1. In 1990, 39 per cent of people aged 15 and over were older than 45 years of age. By 2002 the percentage in this group aged over 45 had increased to 45 per cent. Population projections¹ indicate that by 2010 the percentage will have risen to 49 per cent. By 2020 more than half of the population (53%) over 15 years of age will be aged 45 years and over.

Table 1: Population profile of people 15 years and older, by gender

Age	1990			2002		
	Males	Females	Persons	Males	Females	Persons
15-19	10.8	10.2	10.5	9.1	8.4	8.8
20-24	10.5	10.0	10.2	8.9	8.3	8.6
25-29	10.9	10.5	10.7	8.9	8.7	8.8
30-34	10.6	10.4	10.5	9.6	9.5	9.6
35-39	10.0	9.8	9.9	9.5	9.3	9.4
40-44	9.7	9.2	9.5	9.7	9.5	9.6
45-49	7.6	7.1	7.4	8.9	8.7	8.8
50-54	6.4	6.0	6.2	8.4	8.2	8.3
55-59	5.6	5.3	5.5	7.1	6.7	6.9
60-64	5.6	5.5	5.6	5.5	5.3	5.4
65-69	4.8	5.2	5.0	4.5	4.4	4.5
70+	7.5	10.8	9.2	9.9	12.9	11.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number (000's)	6,576.5	6,711.8	13,288.3	7,712.0	7,968.8	15,680.8

Source: Derived from ABS Population by age and sex, cat no. 3201.0

The ageing population and intergenerational equity

The *Intergenerational Report* reviews the long-term sustainability of Commonwealth government finances and identifies emerging budgetary issues from an ageing population. Although the ageing population will not impact on the Commonwealth budget for another 15 years, initiatives put in place now will assist the capacity of the economy to generate revenue and reduce the growth in government spending.

The objective is to achieve intergenerational equity and minimise the tax burden transferred to the next generation. The report predicts that in about 15 years, other things remaining unchanged, current policies will result in intergenerational inequity as current taxpayers will impose a higher tax burden on the next generation than is appropriate. Commonwealth spending will exceed revenue placing an increasing burden on future generations of taxpayers.

The report estimates that an adjustment of around 5% of gross domestic product (GDP) is required by 2041 - 42 to meet the increased budgetary needs. Encouraging higher levels of mature age participation in the labour force is one of the 7 key priorities identified in the report

¹ Derived from the demographic module of the Econtech, MM2 model

for fiscal sustainability. This would both increase the economy's capacity to generate revenue and reduce the growth in government spending.

Expenditure effects

The expenditure issues associated with mature age participation in the labour force relate to the impact on:

- ♣ Unemployment allowances
- ♣ Parenting payments
- ♣ Disability support pension payments – the report notes that there were 624,000 disability support pension recipients at 30 June 2001, with a higher number of men aged 50 to 59 and 60 to 64 in receipt of disability support pensions than any other group. About 25 per cent of men aged 60 to 64, 10 per cent of men aged 50 to 59 and 9 per cent of women aged 50 to 59 were on a disability support pension. The proportion of women aged 60 to 64 on a disability support pension is increasing in line with rises in the eligible age for women to receive the old age pension.

Revenue effects

The revenue issues associated with mature age participation in the labour force relate to the impact on:

- ♣ the increase in the economy's capacity to generate revenue
- ♣ the increase in GDP if the working-age population find jobs and remain employed
- ♣ reduction in demand for the age pension if older workers increase their private savings for retirement
- ♣ reduction in the decline of the labour force
- ♣ labour productivity is a key driver of real GDP growth so it is important that the mature age workforce is skilled.

Ageing issues

The 'dependency ratio' is a critical factor affecting living standards over time. The dependency ratio is defined as the ratio of the aged population plus the child population to the working-age population².

The dependency ratio at present is the lowest it has been in 30 years. Treasury projects the ratio will continue to fall until 2009, before rising back to current levels by 2012. By 2042 the effect of the ageing population will be to increase the rate back to the 1972 level.

The working-age population is projected by Treasury to rise by 14 per cent over the next two decades. However, the fastest growing age group of the working-age population will be those aged 55 to 64 years, which is projected by Treasury to rise by 50 per cent over the next two decades.

A major influence on budget expenditures and revenues and for intergenerational equity is the participation of older people in the labour force, their ability to secure employment and the

² [(aged popn + child popn) / working-age popn]

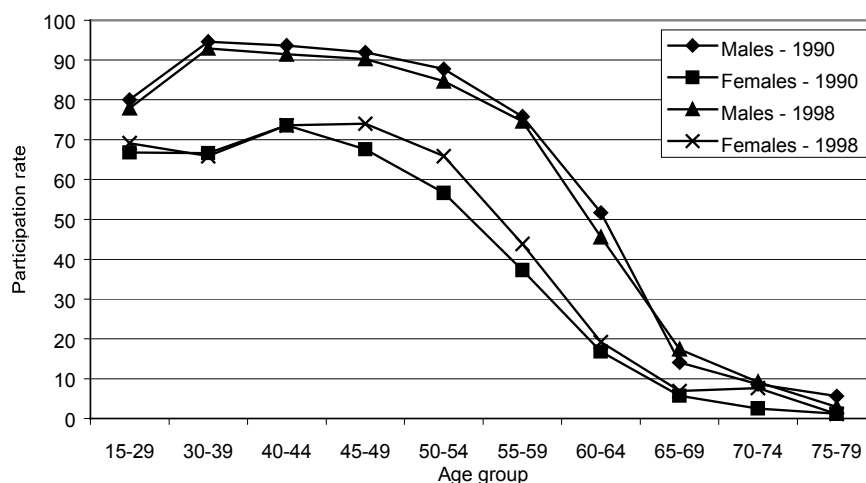
number of hours they are able to work. The challenge is to increase the labour force participation and employment of older workers. Currently more than two-thirds of retired men aged 50 to 64 would like to work.

The vocational education and training sector has a role to play now to educate and train those men and women who are currently aged 25 to 44, in anticipation of when they reach the problematic 50 to 64 year age group.

Improving labour force retention for older workers

Labour force participation for both men and women declines gradually with age after 40 years of age for men and after 45 years of age for women³. However, for some members of the labour force (mostly farmers and small business operators), participation continues past 70 years of age (see figure 1).

Figure 1: Labour force participation rates, November



Source: Unpublished ABS data from the labour force survey

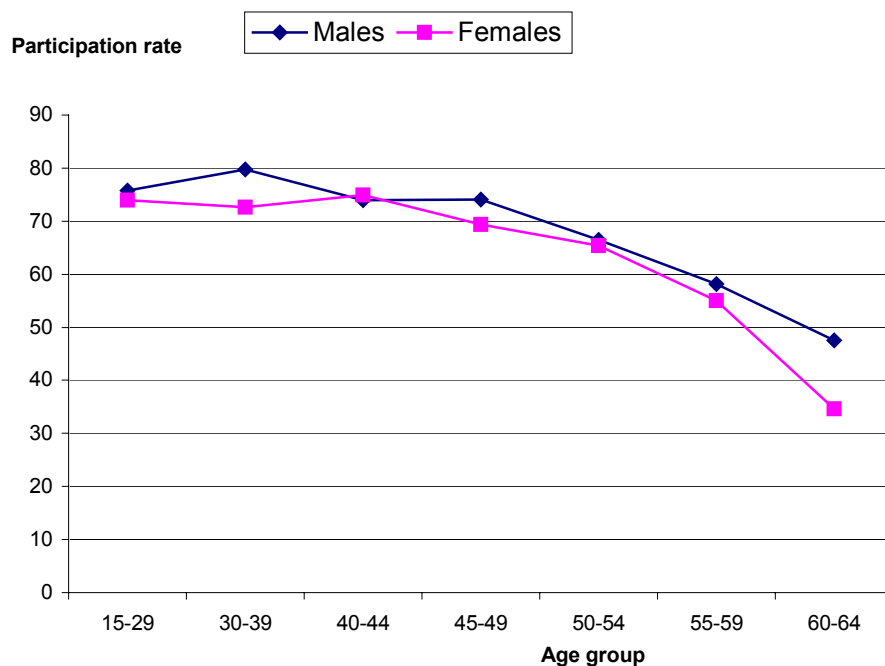
The main issue facing older workers in the labour market is the length of time it takes to secure employment once they have become unemployed. Older workers are no more likely to become unemployed than are people who are younger than 45 years of age. However, once unemployed, it may take older people some weeks to find a job compared with the situation in the past. The average time for older men is 12 weeks. Although, there is a noticeable decline in the proportion of men working full-time after 55 years of age, most unemployed men continue to look for full-time work until they are over 65 years of age. Between 50 and 60 per cent of employed women in all age groups under 60 years of age are working full-time, however, over two-thirds of all unemployed women between 40 and 60 years of age are looking for full-time employment. The growth in jobs is predominantly in part-time jobs so while most older unemployed people are looking for full-time work it is more likely that a part-time job will be secured rather than a full-time job.

³ This information is based on an analysis of unpublished data from the November 1990 and 1998 ABS labour force survey (Ball, 1999). After 40 years of age, the age groups comprised 5-year age groups.

Who participates in training?

Consistent with labour force participation, involvement in training also declines with age (see figure 2). Participation in formal education or study in Australia is increasing amongst older people (see table 2). In 1999, students aged between 35 and 64 accounted for 18 per cent of all students compared to 15 per cent a decade earlier⁴. With the exception of women aged 55 to 64 years of age, the increases for mature age people were greater for women than for men. Almost 5 per cent of men and 7 per cent of women in the 35 to 64 year age group participated in a formal education or study program offered by an educational institution in 1999.

Figure 2: Training participation rates, 1997



Source: Unpublished data from the ABS Education and Training Experience survey

⁴ Pg 98, Australian Social Trends, ABS 2000

Table 2: Education participation rates (per cent)

Age in years	1989	1999	Increase (a)
Men			
15-24	46.9	56	19.4
25-34	10.5	12.7	21
35-44	6	7.3	21.7
45-54	3.1	3.5	12.9
55-64	1.2	1.6	33.3
Total 35-64	3.9	4.6	17.9
Total 15-64	16.1	17.5	8.7
Women			
15-24	42.9	56.1	30.8
25-34	9.6	13.7	42.7
35-44	8.1	10.3	27.2
45-54	4.4	5.7	29.5
55-64	2.4	2.3	-4.2
Total 35-64	5.5	6.8	23.6
Total 15-64	15.6	18.7	19.9

(a) Difference between participation rates in 1989 and 1999 expressed as a percentage of the 1989 rate
Source: Australian Social Trends, ABS cat no. 4102.0, 2000.

Apart from age per se, there are a number of factors that influence participation in training by older workers. Such factors include attachment to the labour market and labour market status, gender, place of birth and the attainment, or otherwise, of post-school qualifications. It is the interaction of these factors with age that will influence the ability of an individual to access training. Some of the factors will act to nullify the effect of age on an individual's ability to access training. In other instances these factors will compound the effect of age on the ability of an individual to access training. This information presented in this section is based on an analysis of unpublished data from the 1997 ABS Education and Training Experience Survey (Ball, 1999) and utilised data from the 2001 national VET provider collection and the December quarter 2002 apprentice and trainee collection, (reported in March 2003).

Gender

As a group, older women attached to the labour market have lower training participation rates than men. However, there are more older women than men training in vocational courses in the VET system. In 2001, women comprised 49 per cent of vocational VET students between 25 to 39 years of age but 54 per cent of vocational students between 40 and 64 years of age.

Women's participation in training is an 'organisational' issue as not all groups of women in the labour force have lower participation rates than men. In general, participation rates for female wage and salary earners are comparable to the training participation rates of men. Self-employed women however, tend to participate less in training compared with their male counterparts. The group with the largest discrepancies in training participation rates between men and women is the group marginally attached to the labour market.

Labour force status

Details of the participation in training by persons in, or marginally attached to, the labour force in 1997 are presented in table 3. Of all people in the labour force, the least likely to access training are those people who are marginally attached to the labour force. By age 45, less than a quarter of each age group participated in training.

Table 3: Participation in training by persons in, or marginally attached to, the labour force, 1997

Age group	Employed				Not employed			Total
	Wage or salary earner	Own business		Total(c)	Unemployed	Marginally Attached	Total	
		With Employees	Without Employees					
15 – 29 years	83.3	74.1	75.5	82.4	60.1	32.6	47.1	74.9
30 – 39 years	85.0	77.2	70.3	82.5	48.6	30.1	38.5	76.5
40 – 44 years	83.1	72.6	63.9	79.1	52.9	28.2	40.0	74.5
45 – 49 years	79.7	72.7	61.7	76.2	45.5	19.2	31.5	71.9
50 – 54 years	74.6	60.8	57.4	69.8	39.5	23.6	32.5	66.0
55 – 59 years	66.2	60.9	46.4	61.0	35.6	20.2	27.9	57.0
60 – 64 years	53.6	51.3	34.5	48.6	28.6	18.9	21.5	43.6
Total	81.3	70.5	62.9	78.1	53.2	29.0	41.0	72.4
Number (000's)	6,681.3	540.7	984.6	8,283.4	746.3	764.3	1,510.6	9,794.0

Source: Unpublished data from the ABS Education and Training Experience survey

Participation in training by the unemployed declined for each age group until only 29 per cent of those aged 60 to 64 years participated in any form of training.

In contrast, over four in every five wage or salary earners participated in training. Akin to the unemployed and to those marginally attached to the labour market, participation declined notably for those in the 45 to 49 year age group and for older age groups compared with younger age groups.

Although training participation declines with age for all older age groups, location within the labour market is a more important determinant of whether an individual is likely to participate in training as the proportion of wage and salary earners in the labour force declines with age. The employment status of older people changes with age.

A third of all wage and salary earners participated in some form of in-house training with participation rates increasing with age until 40 years of age. A higher proportion of wage and salary earners participated in on-the-job training compared with other forms of training, with participation rates declining after 40 years of age.

In 2001, 71 per cent of VET students aged 25 to 39 years of age, who reported their labour force status, were employed, 18 per cent were unemployed and 10 per cent were not in the labour force. There was little difference in the reported labour force status of VET students aged between 40 and 64 with 70 per cent of students, who reported their labour force status employed, 17 per cent unemployed and 13 per cent not in the labour force.

Post-school qualifications

For labour force participants, the attainment of a post-school qualification is a major factor influencing participation in training. Across all age groups it is more likely that a person who holds a post-school qualification will participate in some form of training compared with a person who does not. The attainment of a post-school qualification equalises male and female training participation rates. Women without post-school qualifications have lower training participation rates than men across all age groups. Training participation rates for people who are marginally attached to the labour market tend to decline with age for those who hold a post-school qualification. However, participation rates are consistently low for people of all ages who are marginally attached to the labour force and who do not hold a qualification.

In 2001, 51 per cent of VET students in both the 25 to 39 year and 40 to 64 year age group had no post-school qualifications at the time of enrolment. For those students aged 40 to 64 years, 38 per cent had not completed year 12 compared with 31 per cent for students aged 25 to 39 years.

Industry and occupation

The age profile varies by industry (see table 4) and occupation with some industries (agriculture, forestry and fishing; government administration and defence; transport and storage; health and community services) and occupations displaying a relatively aged work force. However, it is not universally the case that industries and occupations with a relatively old workforce also have low training participation rates or that industries and occupations with a relatively young workforce also have high training participation rates. Therefore, the industrial and occupational profiles of older workers do not account for the decline in participation in training with age.

Table 4: Age profile by industry sector (per cent)

Industry Sector	Age Group			
	15-24	25-44	45 and over	Total
Agriculture, forestry & fishing	13.1	38.6	48.2	100.0
Mining	7.6	59.1	33.3	100.0
Manufacturing	12.6	53.2	34.1	100.0
Electricity, gas & water supply	6.6	55	38.4	100.0
Construction	17.0	51.3	31.6	100.0
Wholesale trade	12.9	51.9	35.2	100.0
Retail trade	40.2	37.2	22.5	100.0
Accommodation, cafes & restaurants	33.7	41.8	24.5	100.0
Transport and storage	8.0	51.9	40.0	100.0
Communication services	11.3	59.4	29.3	100.0
Finance and insurance	14.2	57.2	28.6	100.0
Property and business services	13.7	51.5	34.7	100.0
Government, administration & defence	7.8	51.6	40.5	100.0
Education	9.4	46.9	43.7	100.0
Health & community services	10.8	48.5	40.7	100.0
Cultural & recreational services	26.9	49.7	23.5	100.0
Personal & other services	15.7	51.4	32.9	100.0
All industries	18.0	48.3	33.7	100.0

Source: Australian Bureau of Statistics, 2002, Australia Labour Force, May 2002, catalogue number 6203.0

Apprentices and Trainees

Apprenticeships and traineeships are becoming increasingly important as a training mechanism for older workers. About 71,100 apprentices and trainees were aged 40 years and over at 31 December 2002, accounting for 19 per cent of all apprentices and trainees. By comparison, only 6 per cent of apprentices and trainees were aged 40 years and over at 31 December 1997. While over half of all apprentices and trainees aged 25 to 39 years of age are training in trade-related occupations, older apprentices and trainees tend to be employed in non-trade related occupations (see table 5). In general, older apprentices and trainees are enrolled in higher-level courses with 78 per cent of apprentices and trainees aged 40 to 64 years enrolled in a Certificate III level course, 13 per cent at Certificate IV level and only 9 per cent at Certificate II level.

Apprenticeships are providing a means for employed older workers to upgrade their skills as 63 per cent of apprentices and trainees aged 40 to 64 years were existing workers at 31 December 2002. By comparison, 44 per cent of apprentices and trainees aged 25 to 39 years were existing workers.

Table 5: Occupation of apprentices and trainees in-training at 31 December 2002

Occupation	Age 25-39	Age 40-64	Age 65 or over
	100	100	100
Managers and Administrators	0.9	2.4	1.9
Professionals	0.6	0.9	0.8
Associate Professionals	3.8	8.3	9.0
Tradespersons and Related Workers	55.2	17.3	6.0
Advanced Clerical and Service Workers	2.2	3.7	4.4
Intermediate Clerical, Sales and Service Workers	24.4	28.8	28.1
Intermediate Production and Transport Workers	4.0	21.4	30.7
Elementary Clerical, Sales and Service Workers	3.7	5.6	4.1
Labourers and Related Workers	5.1	11.8	15.1

Source: Apprentice and Trainee collection, NCVET, March 2003 collection

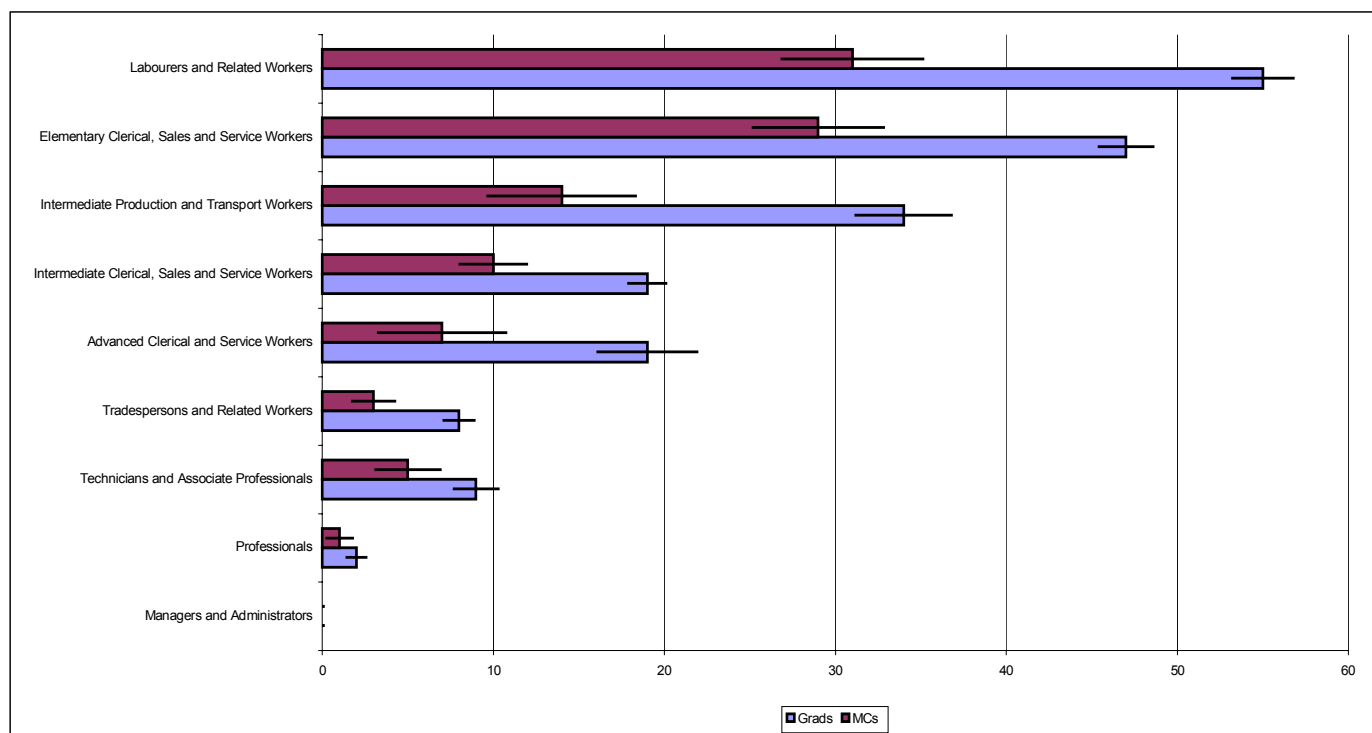
Does education and training make a difference?

Over 70 per cent of vocational students in the VET sector over 25 years of age were employed at the time of enrolment in 2001. Cully (forthcoming) reports that for those students who were unemployed prior to starting their course the success rate of moving to employment at the completion of their course was substantially higher for graduates under 25 years of age compared to graduates aged 45 to 64. On average, only one in four men and one in three women aged 45 to 64 reported in the 2001 TAFE Student Outcomes Survey that they were successful in gaining employment after the completion of their course.

However, the completion of a TAFE qualification clearly assisted employed graduates move to a higher skilled qualification (see figure 3). Around half of all employed graduates over 25 years of age in labourer and related worker and elementary clerical, sales and service worker occupations successfully moved to a job in a higher skilled occupation, after the completion of their TAFE qualification. The completion of 'modules' and not a qualification assisted about 30 per cent of workers in these occupations to move to a higher skilled occupation.

It has not been possible to ascertain the effect on job retention of an older person maintaining currency of skills through the completion of a TAFE qualification or module compared to an older person who has not recently upgraded their skills.

Figure 3: Movement to higher skilled occupations of employed graduates and module completers aged 25 to 64 years by occupation, 2002 TAFE graduates (per cent)



Source: Unpublished data from the 2002 TAFE Student Outcomes Survey

Conclusions

One implication of an ageing population is its impact on future Commonwealth government finances and intergenerational equity. The dependency ratio is projected to rise after 2010 with significant budgetary implications. The vocational education and training sector has an important role to play in assisting the achievement of intergenerational equity so that the tax burden is not transferred to future generations of taxpayers.

Encouraging a higher level of mature age participation in the labour force is one of the 7 key priorities identified in the *Intergenerational report* for fiscal sustainability. The VET sector has an important role to play in providing education and training for those at risk in the labour market. There is evidence from the NCVET Student Outcomes Survey that the completion of a TAFE qualification assists mature employed students aged over 25 years to move to other occupations. It is important that the VET sector focuses now on the training needs of the adult population, particularly those aged 25 to 44 years, as it is this group that will become the problematic age group in 15 years time. Those adults most at risk of either not participating in the labour force or not securing employment are the less educated, those without a post-school qualification and those who do not maintain the currency of their skills.

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