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A peripatetic research perspective on older persons and VET

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This paper presents a series of stylised facts from the research literature on vocational education and training and older people. It includes the following topics: Education is front end loaded; VET is really important in providing older people a second chance; Increases in educational participation of older persons have been very modest; Education makes a large difference to workforce engagement of older people; Qualifications obtained later in life appear to pay off, at least in terms of workforce engagement; ...but training is no panacea; Skills learnt on the job are very important; Attitudes of both employers and employees create barriers for training for older people.

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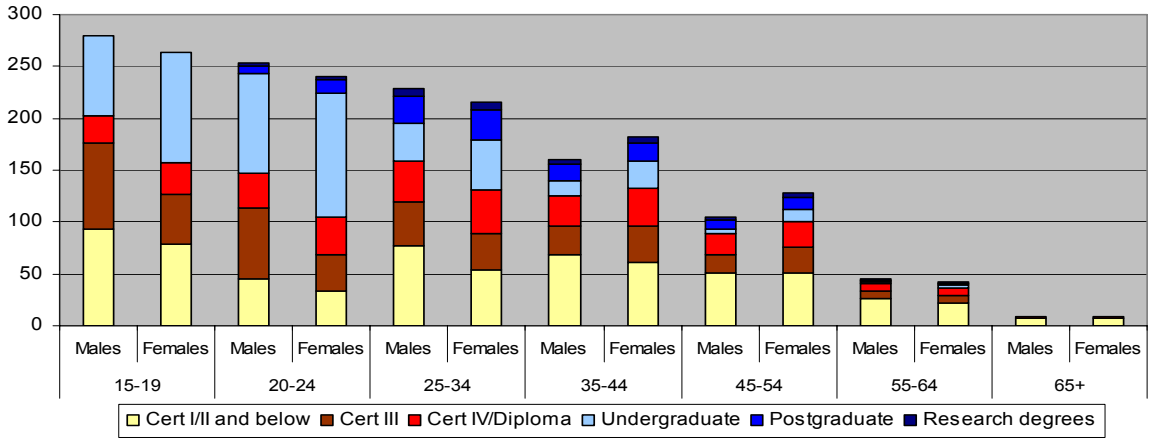
A peripatetic research perspective on older persons and VET

The topic of older persons and vocational education and training (VET) is very broad, so I have decided to take a Cook's tour through a series of stylised facts. There is no pretence to any sophisticated underlying argument but, hopefully, the paper will traverse the territory and provide a useful context for the rest of the day. It makes considerable use of research I have been involved with, and also refers to a range of other work.

Education is front end loaded

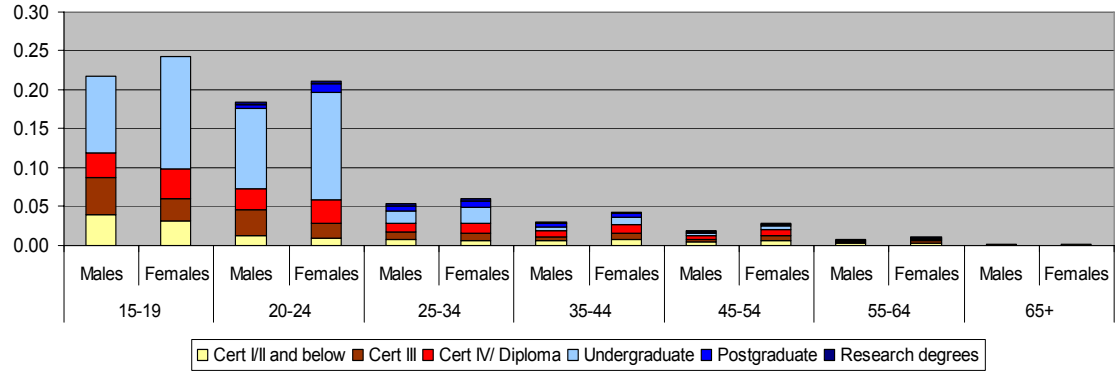
Figure 1 provides a rather complex view of who is involved in education at what age. The figure shows student numbers for both higher education and VET by qualification level. It is obvious that while there are large numbers of older students the student population is dominated by people under 25 years. Figure 2 emphasises the point through age load participation rates (where participation is expressed as a proportion of a full-time load). These are even more skewed because older students tend to be part-time.

Figure 1 Domestic tertiary student numbers by age and sex, Australia, 2005 ('000)



Note: Certificate I/II and below includes 'other VET qualification'.
Source: Karmel (2007)

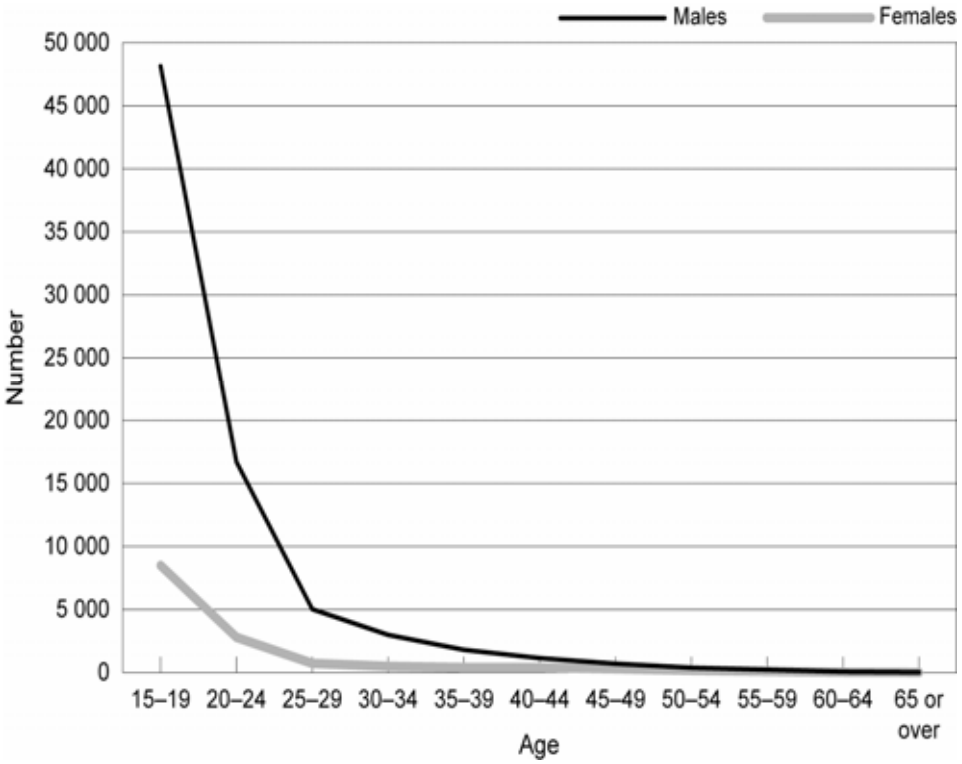
Figure 2 Domestic tertiary full-time load participation rates by age and sex, Australia, 2005



Note: Certificate I/II and below includes 'other VET qualification'.
Source: Karmel (2007)

The domination of young people is even more extreme in some areas, such as traditional apprentices. Figure 3 presents the distribution of trades apprentice commencements; over the age of 40 years they are almost non-existent.

Figure 3 Trade apprenticeship commencements by age and sex, 2005



Source: Karmel, 2006

Education being front end loaded makes sense from an economic perspective. If you think of it as an investment, then young people have a longer period to get a return on it (although this should not be over emphasised as it is the first ten years that dominate net present value calculations). Initial education is the foundation for people's working lives, and thus it deserves more emphasis than continuing education and training.

However, employment is still the main motivation for education and training for older people although personal development becomes more important for older people (table 1).

Table 1 Reasons for undertaking training, by age, 2006

	Graduates		Module completers	
Training *Reasons for undertaking the training:*	**25-44**	**45+**	**25-44**	**45+**
Employment-related outcomes	82.0	74.2	72.5	60.1
Further study outcomes	3.3	1.2	1.7	1.0
Personal development outcomes	14.6	24.6	25.7	38.8
Training was part of an apprenticeship or traineeship	16.2	11.4	7.4	4.2

Source: Student Outcome Survey, 2006

VET is really important in providing older people a second chance

One of the distinctive features of the Australian education system is its openness. People are not locked out of post-secondary education just because they do not make a conventional transition from school to university or technical and further education (TAFE) institute. The VET system has a well deserved reputation for providing older persons with a second-chance. Karmel and Woods (2004) define second chance adults as those students who are 25 years and older who have no previous non-school qualification. Table 2 shows that 'second chancers' make up a sizeable proportion of VET students.

Table 2 Persons currently enrolled in VET[(a)] by second-chance status by age and sex, 2001 (%)

	Males	Females	All persons
15–24 years	47.8	36.9	42.2
25–64 years			
Second chance: Without a non-school qualification	14.7	22.0	18.4
Other: With a non-school qualification	37.5	41.1	39.4
Total	**100.0**	**100.0**	**100.0**

Notes: (a) VET includes enrolments in advanced diploma and below qualifications and level not determined.

Source: Derived from the ABS Survey of Education and Training Experience, 2001, cat. no. 6274.0, see Karmel and Woods (forthcoming)

Not surprisingly, relatively few of the second-chancers are studying higher level qualifications.

Table 3 Classification of VET students by major qualification and second chance status, 2004 (%)

	Persons 25 years and over		
	Second chance	Other	Not known
Diploma or higher	8.2	15.2	5.5
Certificate IV	10.8	18.7	13.1
Certificate III	23.7	19.9	15.2
Certificate II	15.1	11.6	9.9
Certificate I	6.2	3.6	4.9
Non-AQF qualifications[(a)]	36.0	31.0	51.3
Total	**100.0**	**100.0**	**100.0**

Notes:

(a) Non-AQF refers to programs outside the Australian Qualifications Framework (AQF). This includes senior secondary education, other recognised courses, non-award courses and subject only enrolments.

Source: NCVER National VET Provider Collection, 2004, see Karmel and Woods (forthcoming)

While table 2 gives a snapshot, what is more interesting is how effective VET is in providing opportunities to potential second-chancers over their lifetime. In the absence of longitudinal data this is methodologically difficult to estimate. Karmel and Woods attempt to do so using a life table approach and conclude that the proportion is very high indeed (table 4).

Table 4 Second-chance persons aged 25 to 49 years that have accessed VET as a percentage of persons eligible for a second chance in education by age, 2001

	Age				
	25–29	30–34	35–39	40–44	45–49
Males					
Percentage of eligible second chance population going to VET	23.7	22.6	17.0	11.1	7.7
Cumulative per cent	23.7	46.2	63.2	74.3	82.0
Females					
Percentage of eligible second chance population going to VET	23.2	23.9	18.2	16.9	14.5
Cumulative per cent	23.2	47.1	65.4	82.2	96.7

Source: Derived from ABS Survey of Education and Training Experience, 2001 cat. no. 6274.0, see Karmel and Woods (forthcoming)

Increases in educational participation of older persons have been very modest

In figure 2 we presented age-specific participation rates. How have these increased in recent years? Table 5 shows the proportional change (multiply these by a 100 to get percentage points) in student load between 1995 and 2005 that can be attributed to changes in age specific commencement rates. Percentage changes greater that 5% have been highlighted. It can be seen that any increase in the participation of older persons is very modest except in respect to women between 45 and 54 years undertaking certificate IIIs.

Table 5 Increase in age participation between 1995 and 2005 (proportional change)

	Cert. I/II and below	Cert. III	Cert. IV/ diploma	Under-graduate	Post-graduate	Research degrees
Male						
15–19	0.070	0.117	-0.028	0.010	0.000	0.000
20–24	-0.005	0.162	-0.017	0.021	0.026	-0.014
25–34	-0.007	0.091	-0.020	-0.003	0.044	-0.042
35–44	-0.003	0.053	-0.009	-0.004	-0.005	-0.045
45–54	0.003	0.031	0.004	0.000	0.009	-0.001
55–64	0.007	0.012	0.003	0.001	0.005	0.014
65+	0.002	0.001	0.000	0.000	0.000	0.003
Female						
15–19	0.027	0.131	-0.022	0.024	0.000	0.000
20–24	-0.018	0.091	0.001	0.054	0.049	0.022
25–34	-0.029	0.076	0.010	0.001	0.074	0.014
35–44	-0.026	0.077	0.010	-0.006	0.002	-0.016
45–54	-0.002	0.051	0.018	-0.001	0.023	0.008
55–64	0.004	0.014	0.007	0.001	0.008	0.014
65+	0.000	0.001	0.000	0.000	0.000	0.001

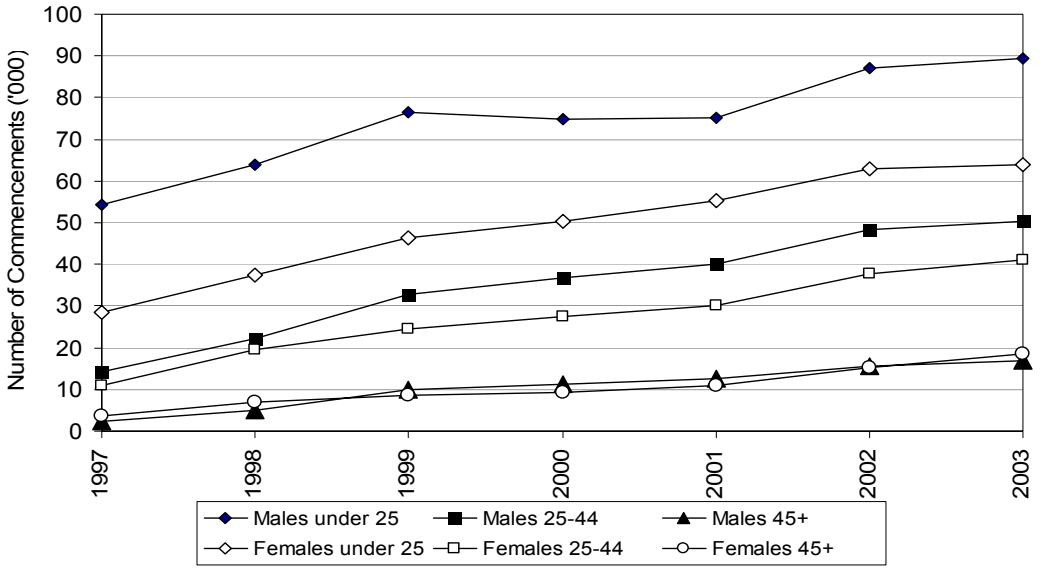
Source: Derived from table B14, Karmel (2007).

The increase in certificate IIIs has been associated with the push to increase the numbers of apprenticeships and traineeships, and there has been significant growth in these among older persons. In respect to older people and apprenticeships/traineeships Karmel (2006) found

- The 'typical' older male (45 years and over) apprentice or trainee is undertaking a certificate III qualification, is full-time, and is a transport driver, or intermediate production and transport worker. This is the same for men aged between 25 and 44, but is quite different for younger men, who typically are undertaking an apprenticeship in a traditional trade.

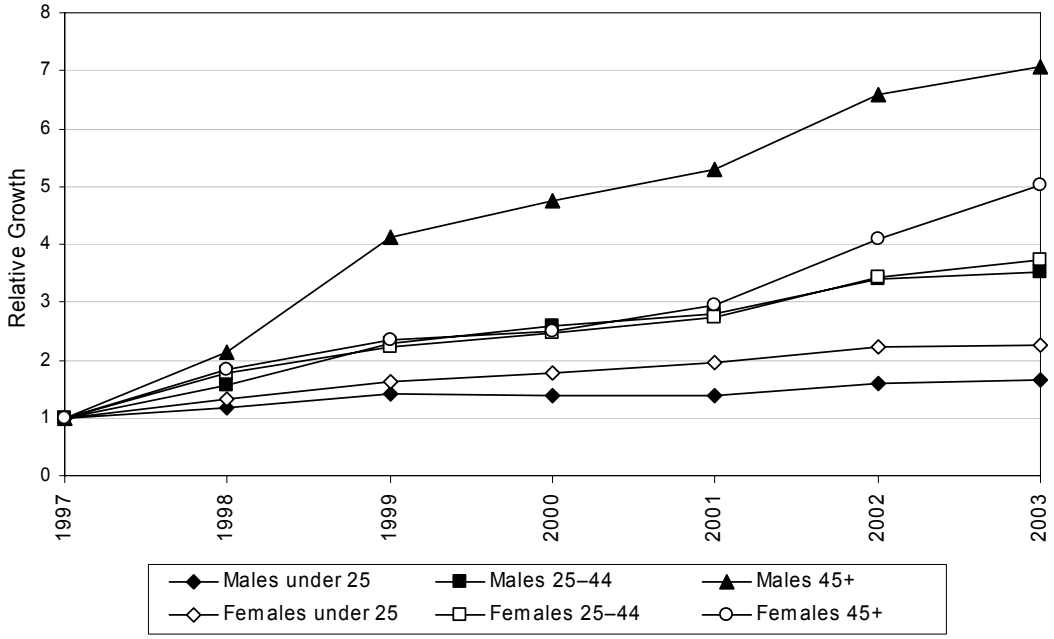
- The 'typical' older female apprentice or trainee is undertaking a certificate III, is full-time or part-time, and is an intermediate service or clerical worker, or cleaner. This is similar to other female age groups, with the exception of young women undertaking a traditional apprenticeship in hairdressing.
- The number of apprentices and trainees has increased substantially since the early 1990s, with the majority of growth taking place in 'non-traditional' occupations. The largest percentage increase was for males over the age of 45 years, followed by women in the same age group. The group with the slowest growth is that of young males, but even here the growth was over 50%. Figures 4 and 5 show growth in apprenticeships and traineeships classified by age and sex.

Figure 4 Absolute growth in the apprenticeship and trainee system by demographic groups, 1997–2003



Source: NCVER Apprentice and Trainee Collection, no. 39, March quarter, 2004, see Karmel (2006)

Figure 5 Relative growth in apprenticeship and trainee contract commencements, 1997–2003



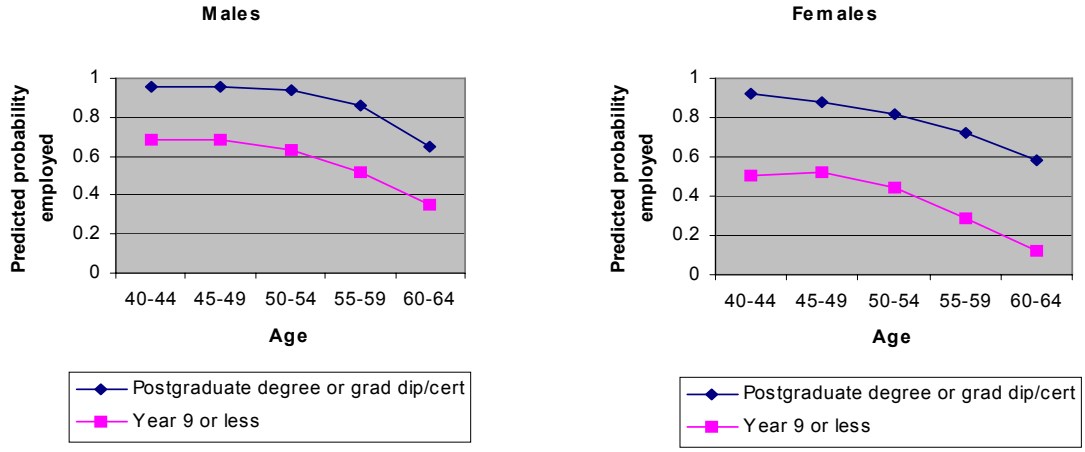
Source: NCVER Apprentice and Trainee Collection, no. 39, March quarter, 2004, see Karmel (2006)

Education makes a large difference to workforce engagement of older people

The motivation behind the considerable amount of research is that labour force participation in Australia is relatively low among older age-groups, and this is of concern given the ageing of the population. Thus there is considerable interest in the link between education and training and employment or labour force participation. An example of such research is Karmel and Woods (2004). They find:

- People with higher levels of education qualifications tend to have high levels of engagement with the labour market. The relationship is particularly strong for women (figure 6).
- Education levels of older cohorts will rise over coming decades as current, relatively well-educated cohorts age. Even with current education participation rates, this should lead to higher rates of engagement with the labour market among older groups, especially for women, than would otherwise be the case (table 6).
- This 'education effect' is even more important when working hours patterns are taken into account because the better qualified tend to work more hours (to a large extent because more are engaged in full-time employment).
- The education effect has been important in explaining the current working patterns. For males, the positive education effect has been against a long-term decline in labour force participation. For females, it has contributed to long-term increases. Kennedy and Da Costa (2006) also point to an increase in education as a factor behind increased labour force participation among older men, but also point to improved health and improved labour market conditions.
- On the whole, the more qualifications the better, although the evidence on lower-level qualifications and incomplete qualifications improving employment rates is mixed.
- Older people who have undertaken training are more likely to retain their employment status relative to their employed peers not receiving training. So training appears to be helpful to maintaining employment. However, one explanation for this is that employers provide training to those they expect to retain as employees.

Figure 6 Impact of educational level on employment of older people, 2001: educational attainment of postgraduate degree or graduate diploma or certificate and Year 9 or less



Source: Karmel and Woods (2004)

Table 6 Education effect, 2003–2043 based on 2003 employment weights (percentage increase in employment to population rate of 15 to 64-year-olds)

	Males	Females
Projection 1 (1993–2003 transitions)	2.0	7.3
Projection 2 (1993–1998 transitions)	1.5	7.2
Projection 3 (1998–2003 transitions)	2.6	8.6

Source: Derived from the ABS Survey of Education and Work, 2003, Transition from Education to Work, 1993 and Transition from Education to Work, 1998, see Karmel and Woods (2004)

Qualifications obtained later in life appear to pay off, at least in terms of workforce engagement

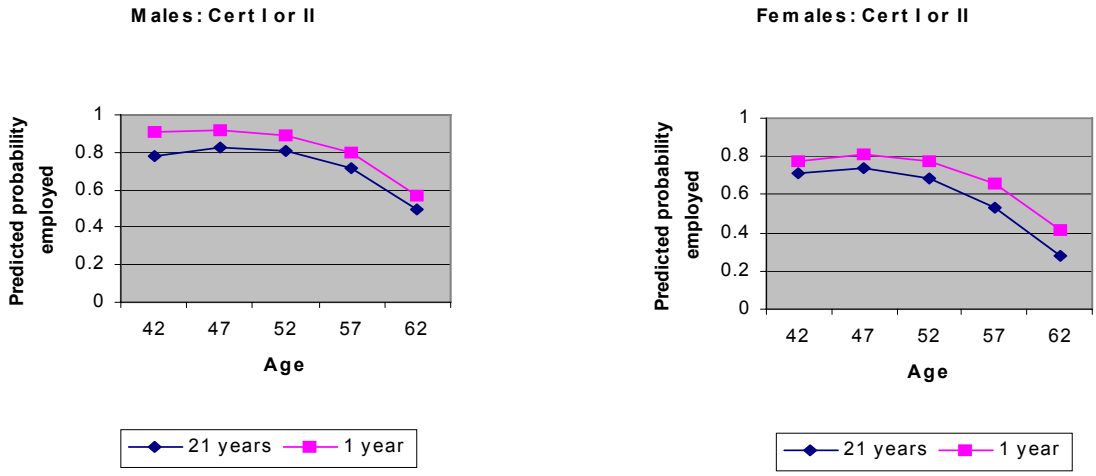
Karmel and Woods (2004), using data from the Survey of Education and Training, find a relationship between the employment to population ratio and time since qualification was obtained (see figure 7). That is, the more recent the qualification, the higher the probability of being employed. This may be, at least in part, because those who wish to remain in the labour force obtain recent qualifications in order to be more marketable.

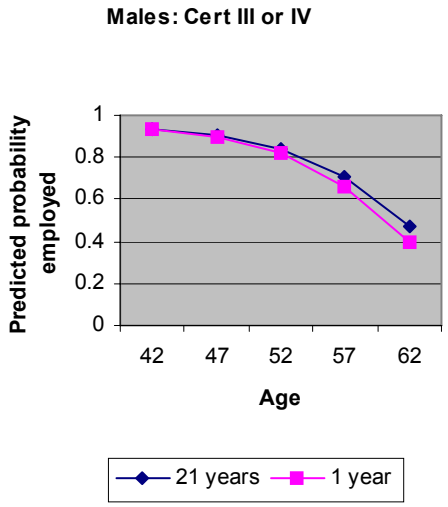
This finding feeds into a systematic review of research on skill development activities and labour market outcomes for mature-aged people (Thomson et al. 2005). The main findings are:

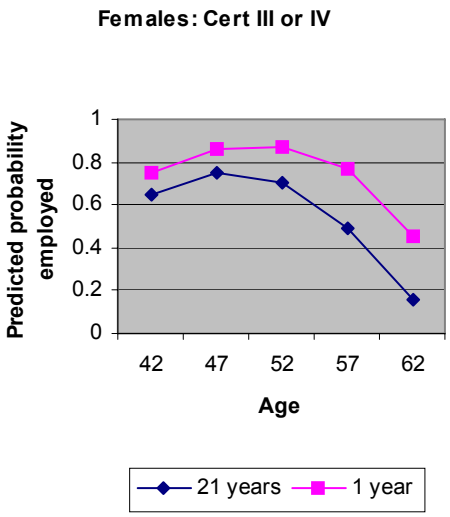
- Skill development activities lead to improved labour market outcomes for some mature-aged people (in terms of higher employment rates or wages), especially for those who were previously unemployed, and for women.
- Evidence has been found that labour-market-related gains are greater for the mature-aged who complete higher-level qualifications. Gaining lower-level qualifications or incomplete qualifications may have a negative effect on labour-market-related gains for some older people.

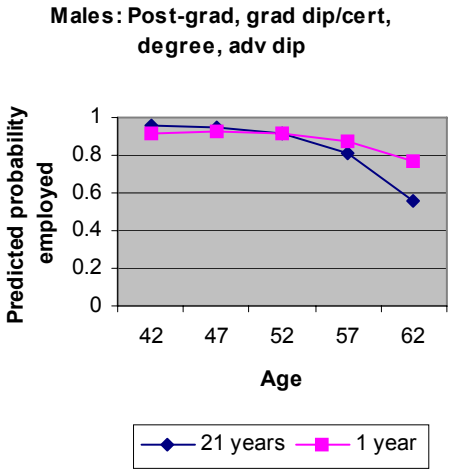
The review also concluded that evidence is sparse on exactly what sort of education and training is effective in getting older people into the workforce.

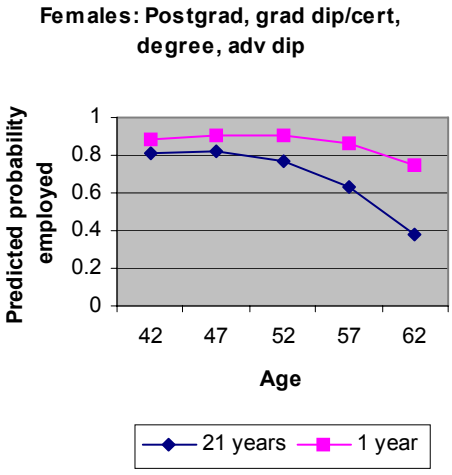
Figure 7 Impact of timing of qualifications on employment rates of older workers









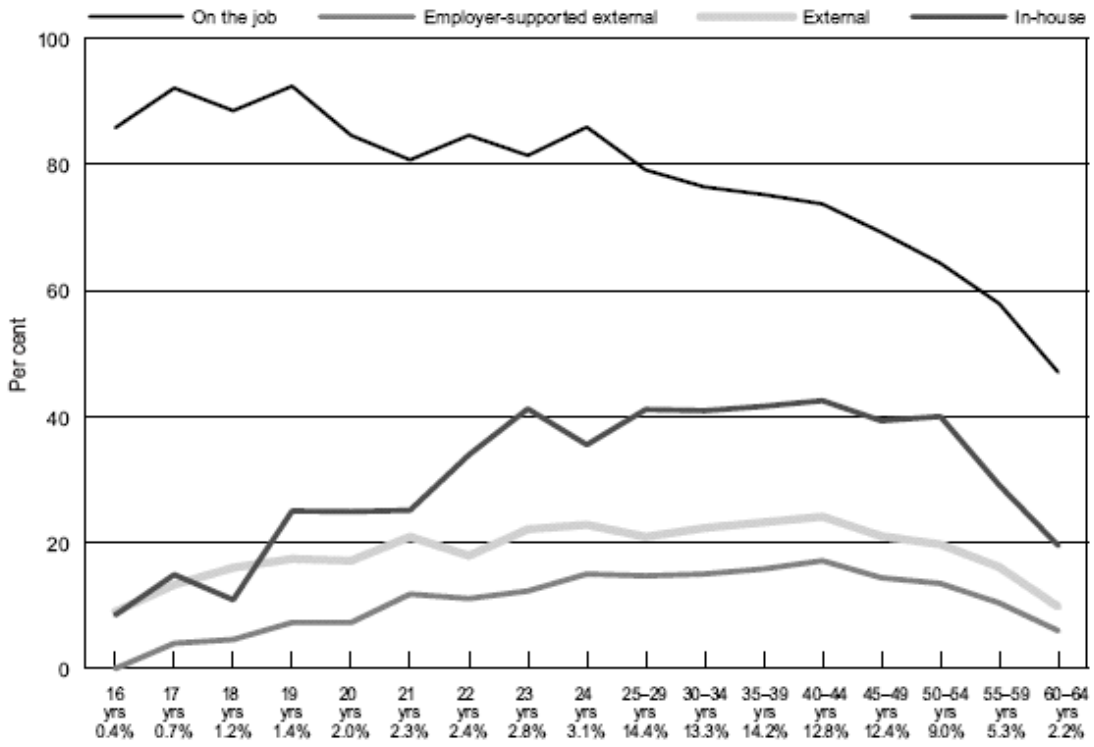


Source: Karmel and Woods (2004)

....but training is no panacea

Richardson (2004) shows that, unsurprisingly, training tends to be less for older people (figure 8). O'Connell (2005) argues that there is a role for training in preventing the labour market exclusion of older workers and looks at training programs in Sweden, the United Kingdom and the Netherlands. Cully (2004) doubts that training is likely to redress the problems of obtaining employment for displaced older workers and suggests that active labour market assistance would yield greater returns. Cully's view is supported by Student Outcomes Survey data that shows very modest increases in employment rates for older people, especially for 'module completers'—those who leave VET without completing a qualification (table 7).

Figure 8 Training by age



Source: Derived from the ABS Survey of Education and Training Experience (2001), see Richardson (2004)

Table 7 Outcomes from VET, 2006

	Graduates		Module completers	
	25-44	45+	25-44	45+
Employment and further study outcomes	%	%	%	%
After training (as at 26 May 2006):				
Employed	81.7	78.6	81.2	70.0
Employed before training	77.4	76.4	80.9	69.5
Difference in employed from before training to after	4.3	2.2	0.3	0.5
Satisfaction outcomes				
Satisfied with the overall quality of training	88.5	89.4	86.0	86.0
Fully or partly achieved their main reason for doing the training	86.6	85.8	82.4	85.1
Benefits of training				
Of those employed at May 2006:				
Reported that the training was highly or somewhat relevant to their current job	78.3	76.1	64.8	64.7
Received at least one job-related benefit	74.2	69.6	59.6	55.9

Source: Student Outcome Survey, 2006

Skills learnt on the job are very important

There is a tendency to think that formal education and training is the major input into skills. However, we know that work experience is also very important, reflecting the skills learnt on the job. Sue Richardson (2004) has done some calculations that illustrate this. Table 8 presents the models relating wages to experience and length of tenure with an employer. For example, according to her overall model (row 1), 10 years experience is worth $114 per week (1996 data). Ten years with the same employer is worth another $35 per week.

Table 8 Increase in weekly wage 'caused' by an additional year of experience and tenure among full-time workers, by industry, $ per week, 1996

Industry	Number	Adj. R^2	Experience $	Exp^2 $	Tenure $
Total	**9386**	**0.51**	**14**	**-0.264**	**3.5**
Community services	2036	0.49	12	-0.230	3.7
Manufacturing	1766	0.45	14	-0.264	4.0
Wholesale/retail	1474	0.51	13	-0.227	2.8
Finance	1110	0.56	20	-0.383	4.3
Public admin.	827	0.59	13	-0.230	3.5
Transport	556	0.34	13	-0.240	6.9
Recreation	468	0.50	10	-0.210	8.0
Construction	453	0.45	20	-0.365	1.7
Communications	224	0.54	10	-0.220	5.1
Mining	176	0.15	*11	*-0.228	1.1
Agriculture	175	0.25	11	-0.228	*0.2
Electricity etc.	121	0.34	**16	**-0.307	**5.2

Notes:
1 * The coefficient for experience or for tenure in the regression was *not* significantly different from zero at the 10% confidence level.
2 ** The coefficient for experience or for tenure in the regression was significantly different from zero at the 5–10% confidence level.
3 All other coefficients are significantly different from zero at the 5% confidence level.
4 Adj. R^2 = the measure of the extent to which people's weekly wage is 'explained' by the independent variables (e.g. differences in their education, sex and age) used in the estimating equation.
5 Exp^2 $ = the numbers of years a person is estimated to have been in the workforce, squared, with the increase in wages caused by an extra year of experience expressed as $ per week.

Source: ABS Survey of Education and Training (1997), see Richardson (2004)

The value of experience is underlined by Guest (2005) who argues that there will be a productivity dividend as the workforce ages. Ranzjin (2004) notes that older workers are valued for their task- and organisation-specific skills, but these count for little when competing for a new job.

Attitudes of both employers and employees create barriers for training for older people

There are sound economic reasons why training is less prevalent among older people. Nevertheless, there is considerable research on barriers to training, and attitudes feature strongly. The systematic review on skill development and older workers referred to earlier (Thomson et al. 2005) points to:

- attitudes and behaviours of employers and employees towards older people working and to learning new skills and knowledge
- individuals' personal circumstances and attitude to learning.

The review also points out that public policy beyond vocational education and training, such as some aspects of superannuation and retirement income policies, will impact on behaviour.

Lawson, Grace and Collinson (2003) in looking at community services and health point to employer attitudes remaining central to mature-age workers (and other groups), and also point to the need for individuals to recognise the importance of training if they are to achieve employment. Lawson and her colleagues also point to the importance of funding, and this is a common theme of many studies. The importance of this observation is that the market, if left to itself, is not going to support large amounts of training for older workers. Whether this is a case of market failure is a moot point.

An interesting twist on the discrimination story is given by Lundberg and Marshallsay (2007). In a survey of older workers they found a substantial majority of them believe that older workers face discrimination, but few of them reported discriminatory attitudes from their colleagues and employers.

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