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Alternative mechanisms to encourage individual contributions to vocational education and training

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Key messages

- Financing vocational education and training has become increasingly challenging and expensive, demanding increased expenditure by employers and individuals to sustain and develop the VET system. Student fees and charges accounted for only 4.5% of recurrent revenue in 2002. State and territory governments and the federal government are the major contributors (approximately 80%), but further growth in expenditure is constrained by competing demands such as health and welfare expenditures caused by the ageing population.
- Individual investment in vocational education is influenced by weighing the costs and benefits. Returns to individuals with VET qualifications in terms of earnings and levels of employment are above those who have not completed their secondary education or who have only completed secondary studies. Nevertheless, they are still below the earning and employment levels achieved by university graduates. Returns also vary according to age, gender, type of VET qualification, duration of course and mode of study.
- To increase expenditure by individuals requires mechanisms that will expand the demand for ongoing vocational education and training and raise the perceived rate of return on investment. This could include taxation breaks, superannuation incentives and schemes that involve incentives for both individuals and employers. The system needs to target lower paid and educated groups and may require cooperation between state and territory governments and the federal government.
- Many of the mechanisms to increase demand for vocational education and training, such as taxation breaks, involve additional expenditure by governments. Consequently, governments require a broader range of policy levers that would maximise VET demand while providing incentives to maximise individual and employer contributions.

Executive summary

The financing of vocational education and training (VET) has become increasingly challenging over recent years and is likely to become even more so as Australia moves towards a mass system of tertiary education—that is, higher education and vocational education and training. Building such a system is expensive and some have argued that it requires public funding to be supplemented on a significant scale from private sources (Barr 2001). Growth in education expenditure by governments is likely to be constrained by upward pressure on health and welfare expenditures caused by the ageing population (Aungles, Karmel & Wu 2000). Many countries facing similar challenges have introduced or considered mechanisms that involve government, employers and individuals sharing the responsibility for the increasing resources required to fund lifelong learning.

This study identifies, describes and evaluates the range of mechanisms that attract individual investment in vocational education and training and other post-compulsory education in Australia and overseas. The key research questions for this study are as follows:

- ✧ What are the conditions that influence the propensity for individual contributions?
- ✧ What are the mechanisms that may attract individual investment in vocational education and training and other post-compulsory education in Australia and overseas?
- ✧ How appropriate and effective are these mechanisms in encouraging greater investment by individuals in vocational education and training?
- ✧ What are the administrative, financial, constitutional and other legal barriers to the implementation of these mechanisms?
- ✧ Based on findings from the above questions, which mechanisms are more likely to encourage individuals to participate and invest in vocational education and training in Australia?

Governments have introduced mechanisms largely to address concerns about participation, inequities and under-investment by individuals in education and training. Determining the effectiveness of mechanisms in increasing private expenditure has been somewhat difficult owing to a lack of:

- ✧ adequate data about which and how much individuals invest in Australia and overseas
- ✧ comprehensive policies and mechanisms to increase private investments in education and training
- ✧ reliable evaluation studies on the effects of different schemes to generate new financial resources, or their interactions with cost-effectiveness and quality.

Therefore the approach taken in this report is to describe the mechanisms introduced in different countries and to present available findings about the effectiveness of these mechanisms in encouraging participation and investment by individuals. This is followed by an evaluation of the mechanisms in the Australia context.

The information contained in this report should assist governments with a fixed budget for expenditure on education and training to design an optimal policy mix that aims to maximise participation and investment by individuals. This policy mix could include one or a number of different mechanisms such as grants to providers, savings incentives through learning accounts, underwriting income-contingent loans, income tax deductions and vouchers.

Types of mechanisms

Individual learning accounts are accounts opened by individuals to save for their education and training. Individual contributions to these accounts are usually supported by government and/or employer contributions. Many schemes are yet to be fully evaluated. Those that have been evaluated indicate that individual learning accounts are attracting investment by individuals (but not necessarily by the target groups) and measures need to be in place to ensure quality and prevent misuse.

Student loan schemes (conventional or mortgage-type loans, graduate taxes, and income-contingent loans) are cost-recovery mechanisms where students pay for at least part of the cost of education and training. As a potential mechanism for funding vocational education and training in Australia, income-contingent loans involve the graduate or former participant repaying education and training fees once their earnings are above an income threshold. Payment of the loan continues until the value of the loan has been repaid or when a maximum repayment period has been reached. Australia's Higher Education Contribution Scheme (HECS) has led to an increase in income from students for higher education and enabled an expansion of the sector. Despite raising the cost of higher education to an individual, the scheme has not been a notable deterrent to enrolment and does not appear to have affected the participation of people from disadvantaged backgrounds.

A *voucher* is a payment to an individual for use at an education and training provider of their choice, with the government and/or employer required to pay a pre-determined amount. A 'pure' voucher is a coupon with a specified financial value whereas a 'quasi-voucher' is a smart card or similar device that represents an entitlement to education and training. They aim to allow individuals to make informed choices to meet their training needs, increase competition and improve access. Vouchers in partially funded schemes require individuals to contribute to the cost of their education and training.

Paid educational leave (PEL) is legislated in many European countries to provide eligible people with an opportunity to undertake education and training for a maximum period while receiving unemployment benefits or continued payment of their salary by the employer. Evaluations indicate that: participation is greater during periods of higher unemployment; particular occupations and industries are tending to participate more than others; finding substitute labour can be difficult; and overall participation by the labour force is low. Providing individuals with greater time to undertake education and training may act as an incentive to individuals to contribute to the costs of their education and training.

Factors influencing individual investment in VET

Individual investment in vocational education and training is influenced by the individual's perceptions of the economic and non-economic rewards weighted against the costs of the investment (financial and non-financial). Benefits include: more job opportunities, higher salary, better career prospects, lower probability of unemployment, increased job satisfaction, an improved working environment, and non-earnings or external benefits such as improved health, schooling received by one's children and consumer decision-making. Costs include: direct costs (such as fees, transportation and instructional supplies for training courses), indirect costs (such as foregone earnings and foregone leisure), and the cost of capital (interest rate paid when drawing down savings to replace foregone earnings or borrowing to cover living costs during vocational education and training away from the job).

Returns to individuals from VET qualifications are significantly lower than returns for university education in Australia. Relative earnings of the population aged 25–64 years show that people with tertiary type B qualifications (certificate and diploma level, mostly issued by technical and vocational colleges) earned 39.6% less than people with tertiary type A qualifications (that is, degree level, mostly issued by universities) in 2002. The unemployment rate for those with tertiary type B qualifications was 4.1% (males) and 3.7% (females) in 2002 compared with 2.6% (males) and 2%

(females) for those with tertiary type A qualifications. Returns from VET qualifications vary according to age, gender, type of VET qualification, duration of the course, and mode of study.

Common reasons cited by people for not participating in education and training include: lack of financial resources, difficulty in assessing returns and benefits, no interest or perceived need, work and time pressures, family commitments, past negative learning experiences, poor information, and having a disability. Data on barriers to study and training indicate that lack of interest or perceived need is the biggest barrier (ABS 2002). Out of 12.2 million Australians who were aged between 15 and 64 years (and not at school), over 9.7 million did not want to enrol in a school or non-school-level qualification and 9.3 million did not want to undertake training in the 12 months prior to the survey.[1]

Wurzburg (2002) calls for policies and strategies to reduce the costs of learning for individuals (such as recognition of prior learning [RPL] and flexible delivery) and raise rates of return from investments. Policies and strategies also need to raise awareness of the benefits of investing, address barriers that prevent individuals from investing, and incorporate activities that reach and influence people in different market segments.

Mechanisms in Australia

Vocational education and training has a diverse funding base, relative to those of the other two major sectors. However, the state and territory governments are the major sources of funding, with student fees and charges accounting for only 4.5% of recurrent revenue in 2002. The introduction of mechanisms that have been explored in this report would face potential administrative and constitutional barriers. Some have implications for taxation and other financial systems such as superannuation. In many cases, mechanisms require the cooperation of the two levels of government, as they involve the construction of regimes of fees and charges across the VET sectors in each state.

Aungles, Karmel and Wu (2000) estimate that by the year 2020–21 technical and further education (TAFE) expenditures will have increased in real terms by 54% due to growth in the student population. The fundamental difference between the Higher Education Contribution Scheme mechanism as a means of gaining individual contributions to higher education and options in the VET sector is that the VET sector does not currently have the excess demand that provides the foundation for a Higher Education Contribution Scheme. Increasing the financial base for VET supply would involve building demand and ensuring the system's capacity to exploit this demand. This suggests the following:

- ✧ Mechanisms should concentrate upon expanding demand for continuing vocational education and training, which in the main will be among people in paid employment.
- ✧ Learning accounts and, to a lesser extent, paid educational leave offer the most potential as mechanisms to achieve increased demand and investment.
- ✧ Mechanisms need to offer incentives for individuals to invest, preferably in conjunction with incentives for employers.
- ✧ Incentives could include taxation breaks, for both workers and employers, and superannuation, especially for older workers.

Given the higher propensity for higher income and better educated workers to invest in education and training, any schemes would need to have mechanisms that target participation and investment by lower paid and educated groups.

[1] These figures include people who studied in the last 12 months but did not want to gain an additional qualification and people who attended training in the last 12 months but did not want additional training.

Investment by individuals in VET

Background

The adoption of 'lifelong learning' as the guiding principle by the Organisation for Economic Co-operation and Development (OECD) education ministers in 1996 has signalled potential shifts in education and training policies and activities in member nations. Most OECD nations have concentrated their policies on initial education and training, and comparative measures of educational performances still emphasise investment in and outcomes of initial education and training. Nevertheless nations are conscious of the economic and social implications of technological and industrial change—and the so-called knowledge economy—and the tacit consensus among OECD nations on the social and economic priority of education and training is remarkable.

The term 'lifelong learning' lacks definition, and, to an extent, direct policy links with it are hard to identify. The concept is accompanied by a considerable amount of interest in the recognition of informal and non-formal learning.[2] It also is the case that investment in initial education and training is the most important basis for lifelong learning. However, nations are striving to increase adult participation in formal, or formally recognised, learning and to build cultures of continuing learning in response to work, occupational and social changes. For example, the European Commission (2001) believes that the overall rates of public and private investment must be increased significantly to achieve the vision of lifelong learning and to support the transition to the knowledge-based society.

These developments have come during a period of intense pressure upon government revenue and spending, and constraints upon company investment in training, especially generic training. Ageing populations, infrastructure renewal and expansion, and now security issues compete robustly with education and training for government spending. Company investment in training has diminished as the size of firms decline, labour mobility expands, contingent employment modes increase, and as in-company training becomes more firm-oriented, rather than occupationally oriented.

Governments, therefore, are seeking to increase the investment made by individuals to meet the costs of lifelong learning 'in an environment of scarce financial resources and rising training costs' (West et al. 2000, p.10). Many governments claim that they are unable to meet these costs through public spending and are under greater pressure to reduce public spending rather than re-deploy resources (OECD 2000). There is increasing pressure on governments to ensure a policy mix that maximises participation and private expenditure by individuals within a fixed budget for expenditure on education and training.

There is evidence of a substantial rise in the demand for skills in the global economy. These demands are rising at a more rapid rate than the supply of skills and are contributing to increased rates of return for educated labour across both developed and developing nations (de Ferranti et al. 2003). Goldin (2001) argues that the ability of the United States of America to first achieve mass secondary education explains its current economic and technological leadership. In the same way

[2] In 2003 the OECD, European Union, and the International Labour Organisation (ILO) were investing in projects on the assessment or recognition of informal and non-formal learning. (Informal learning is learning through work and community life. Non-formal learning is learning gained through structured programs, but has not been formally recognised.)

there is relative consensus that nations need to use the platform of mass secondary education as a platform for the expansion of both initial and continuing of tertiary education and training, or lifelong learning. There is a general consensus across developed nations that governments should meet the costs of school education. However, the costs of tertiary education and training are rising rapidly and there is a need for greater diversification of its financial base.

This practical rationale for increased individual contributions is accompanied by the philosophical rationale that individuals gain substantial benefits from skilling in the form of employment and occupational mobility and financial rewards. This is somewhat challenging for the vocational education and training (VET) sector, as the rates of return are mixed across occupational and industry areas and gender. On the other hand, projections suggest that the returns for VET qualifications are likely to improve into the future, although not consistently across occupations.

The concept of 'incentives' for individuals to invest implies a market model for vocational education and training. It is the case that most individual investment is in continuing education and training and is amongst groups that already have relatively high levels of education and training. However, the question of individual investment is most problematic at the initial levels of vocational education and training. A number of factors affect the incentives for groups with limited initial education—issues of access, financial cost and opportunity—and these may be helped by mechanisms such as recognition of prior learning and credit transfer. These questions go beyond the scope of this study which concentrates upon options for funding mechanisms.

Burke (2000) identifies several sources for the additional resources to fund lifelong learning: freeing funds through efficiencies or reallocation, stimulating employers to enhance learning in the workplace, stimulating increased individual expenditure and increasing government funding (p.3). There appear to be differences in the views of different nations on the extent of individual responsibility for investing in lifelong learning and continuing education and training. In its 2001 review of country reports by member states of the European Commission, the European Centre for the Development of Vocational Training (CEDEFOP) found consensus that investment in learning is a shared responsibility between the public purse, employers and individuals.

However, there are differences in views about the extent to which individuals should contribute. The country reports of European Commission member states of Denmark and Belgium cautioned an over-individualised approach to lifelong learning, as it could lead to cuts in public spending on education and training and exacerbate existing social and educational inequalities. Emphasising the distribution of responsibilities between public and private sectors and greater individual responsibility, the United Kingdom and The Netherlands support levels of investment reached voluntarily and through negotiated agreements. Germany and Ireland called for a workable and realistic balance between public and private investment and between social and individual responsibilities (CEDEFOP 2001).

The different views about the level of individual responsibility are reflected in the different mechanisms to address the under-investment in education and training by individuals and concerns about participation and inequities in vocational education and training. As well as generating financial resources and encouraging participation, mechanisms are expected to provide incentives to increase efficiency in the provision of lifelong learning and raise the quality of outputs. The different approaches also reflect the emphasis placed upon equity by different nations (OECD 2000).

This study has focused on four types of mechanisms that aim to encourage participation and investment by individuals in education and training. Individual learning accounts and student loan schemes are two of the mechanisms being used by some countries to increase the share that individuals contribute to the cost of provision. Vouchers that represent part of the cost of the training also encourage individuals to invest by contributing to the cost of training or paying the remaining cost of the training not covered by the voucher amount. Paid educational leave provides individuals with an incentive to invest in their learning by offering them paid time to study away from the workplace.

Despite the existence of these mechanisms, the OECD (2000) found that policies and mechanisms to increase private investment in education and training, to meet the increasing costs of lifelong learning, are not nearly so well developed. Consequently, the under-investment by employers and employees is being tackled in fragmented ways. Added to this is the lack of adequate data about how much individuals invest and for what purpose. As a result there is little data on the effects of different mechanisms in generating new financial resources, or interactions with cost-effectiveness and/or quality. Many mechanisms are in the early phases of implementation, and there are very few reports of reliable evaluation studies on the effects of different policies (OECD 2000).

There was consensus at the *International Conference on Making Lifelong Learning an Affordable Investment* in 2000 that promising co-financing mechanisms exist but there remains a 'lack of information on the details of different approaches that were being tried and evidence on the outcomes of different approaches' (Wurzburg 2002, p.107).

The OECD and the European Union through its European Learning Account Project decided in early 2002 to work together to detail the different approaches to co-financing. The OECD and the National Learning and Skills Council of England held an international seminar *Taking Stock of Experience with Co-finance Mechanisms* from 27–29 November 2002 to review the outcomes of the European Learning Account Project (ELAP). The five countries in the project network (Sweden, Switzerland, United Kingdom, The Netherlands and the Basque Region of Spain), together with representatives from Austria, Australia, Germany and Korea, participated in the seminar that 'debated and subsequently approved Guidelines for documenting the objectives, structures, and results to date of different mechanisms to co-finance lifelong learning' and to 'co-operate with the ELAP and OECD in exchanging expertise and lessons from experience' (OECD 2002a, p.1).

The European Commission has also made a commitment to evaluate various models of individual funding schemes to 'assess their impact on investment, participation and on learning outcomes' (European Commission 2001, p.20).

Factors influencing individual investments

The approach taken in most international studies and reflected in government policies and initiatives is that individual investment in vocational education and training is influenced by the individual's perceptions of the rewards (both economic and non-economic) weighted against the costs of the investment (financial and non-financial). CEDEFOP (2001) found consensus among its member states that any new investment approach in vocational education and training must more clearly demonstrate the benefits of learning, should include incentive measures of various kinds, and be targeted to those most in need. Individuals are likely to pay if the training is of good quality and can bring personal benefits and high private rates of return (Bolina 1996).

Bainbridge and Murray (2000) identified some of these benefits: more job opportunities, higher salary, better career prospects, lower probability of unemployment, increased job satisfaction, and an improved working environment. Examples of non-earnings or external benefits of education include improved health, schooling received by one's children and consumer decision-making (Wolfe & Haveman 2001; OECD 2001).

Wurzburg (2002) notes that the incentives (and dis-incentives) to invest in vocational education and training are 'far-ranging in scope and vary from individual to individual in their absolute and relative importance' (p.87). He found that the factors of work (likelihood of investment in enhancing employability and earnings), family (does it interfere with family responsibilities), prior educational experience (what level and was it positive) and learning needs and styles have an impact on whether an individual will invest in vocational education and training. Wurzburg (2002) argues that an evaluation of the economic and non-economic incentives to invest in vocational education and training involves determining the costs of the investment in VET and a measurement of the benefits of that investment against the costs (p.88). He identified direct costs (such as fees,

transportation and instructional supplies for training courses), indirect costs (such as foregone earnings and foregone leisure), and the cost of capital (interest rate paid when drawing down savings to replace foregone earnings or borrowing to cover living costs during vocational education and training away from the job). Benefits include wage differentials from the investment and increases in productivity, employability and mobility.

The basic cost–benefit approach needs to be considered within economic and social constraints. They include labour market structures and behaviours, industrial structures and cultures, taxation and welfare systems, and social values and networks. As well, investments in formal vocational education and training are influenced by the structure, operation and cultures of education and training systems. In particular, the organisation of qualifications, which can provide signals to employers or currency between learning and employment, will influence the costs and benefits of investment in vocational education and training.

For example, the OECD is currently investigating the role of 'national qualifications systems in promoting lifelong learning' (OECD 2002b). The components (accreditation, quality assurance, and awarding—including recognition of prior learning and credit transfer) of qualifications can influence cost-based decisions to invest in them. Their perceived status (including the status of the awarding institution) and the networks that link them with individuals, occupations and industries/enterprises influence judgements about the returns to the investment, both economic and status (see Collins 1971 for an explanation of status effect).[3] In turn, institutional arrangements, especially licensing arrangements, will influence the scope and characteristics of qualifications.

Rates of return

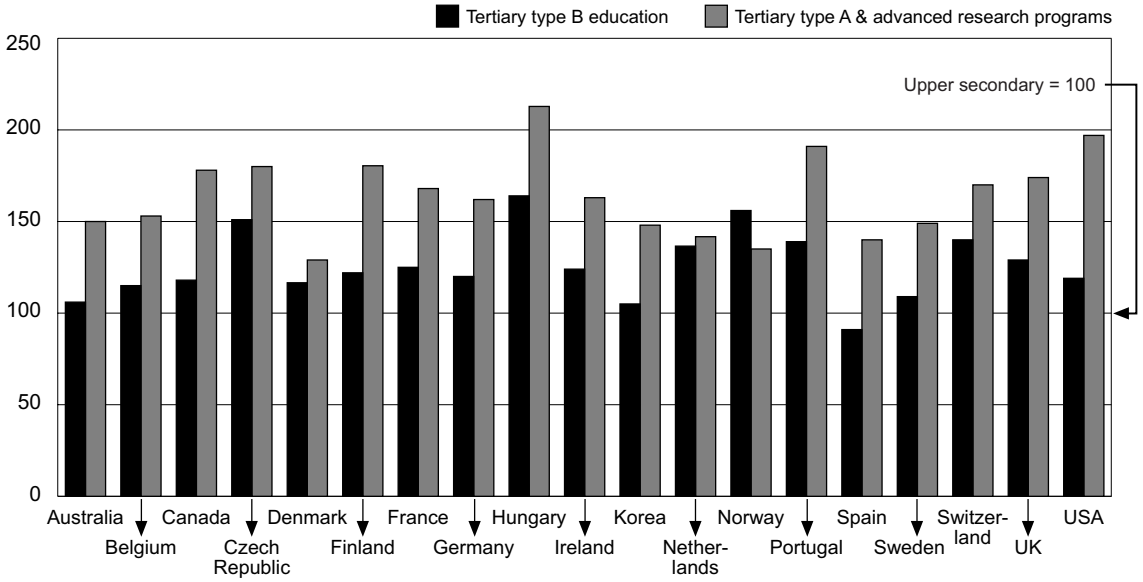
The incentives for individuals to invest in education and training and the corresponding community gains typically are measured through private and social rates of return. The private or internal rate of return is defined as the 'rate at which future benefits must be discounted such that their net present value equals the cost of the investment' (Wurzburg 2002, p.89). Consistent with the conceptual framework described in this chapter these returns are monetary and non-monetary, and will be realised over different periods of time. In the case of individuals, these returns are restricted by finite working and social life spans, such that the age at which investments are made will influence potential returns.

Relative earnings from tertiary type B (VET) qualifications in Australia in 2002 were the second lowest of OECD countries shown in figure 1 and table 18 in the appendix. This is partially explained by the relatively weak overall returns for tertiary education qualifications in Australia (148 for Australia compared to an estimated country mean of 164). Similar to many OECD countries, returns from tertiary type A/advanced research program qualifications are significantly higher than for tertiary type B qualifications in Australia (39.6% higher in Australia compared with 30.2% for OECD countries).[4]

[3] Because education and training systems historically mainly have been supply driven, status effect has been an important factor in individual demand. One weakness of VET in Australia is its comparatively weak status value (compared to degree qualifications). Arguably the decline in occupational labour markets has weakened the status of a range of VET qualifications.

[4] Type A qualifications are degree level and are mostly issued by universities. Type B are certificate and diploma level and mostly are delivered through technical and vocational colleges.

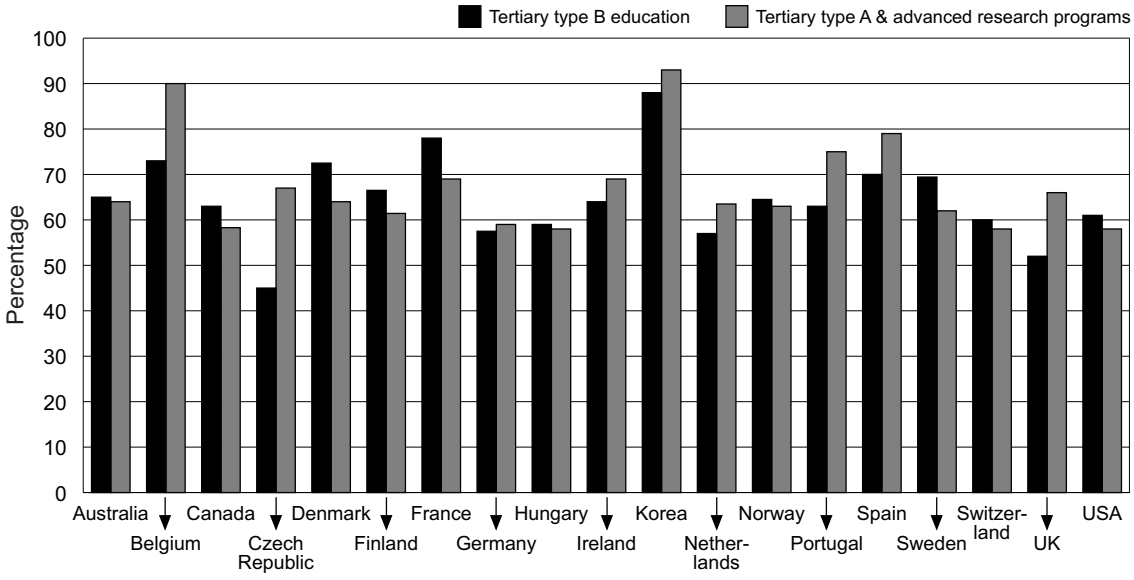
Figure 1: Relative earnings of the population with income from employment—tertiary type B and tertiary type A/advanced research programs, 2002



Source: OECD 2004, table A11.1a

Although returns to women who undertake tertiary type A and tertiary type B qualifications are higher than returns to men in Australia and in some other OECD countries, figure 2 and table 19 in the appendix show Australian women aged 30 to 44 years with the same level of educational attainment earn around one-third less than men. In 2002, women with tertiary type B qualifications earned 65% of what men earn with these qualifications and women with tertiary type A qualifications earned 64% of what men earned. For older women, the gap between male and female earnings is greater.

Figure 2: Average annual earnings of women as a percentage of men by level of educational attainment, 30 to 44-year-olds, 2002



Source: OECD 2004, table A11.1b

Unemployment rates for people with tertiary type B qualifications in Australia were higher than unemployment rates for tertiary type A qualifications in 2002 (4.1% compared with 2.6% for males

and 3.7% compared with 2% for females). The OECD country mean unemployment rate for men with tertiary type B qualifications at 3.5% is lower than the Australian rate of 4.1% (table 20 in the appendix).

A recent study by Ryan (2002) concluded that returns 'vary substantially on the circumstances of the individuals and the courses they undertake' (p.31). These differences are due largely to the earnings that individuals forego while they study which is shaped by the length of the course and the mode of participation. Wurzburg (2002) found returns are the lowest for those individuals who pay the cost of education and do not receive any financial support from employers or government, and that returns in many cases double when the duration of the education is cut in half. Wurzburg (2002) identified two strategies to raise private and fiscal rates of return. The first strategy is to shift costs from one actor to another, such as the state providing learning opportunities free of charge, thus raising the return to individuals, particularly those on low incomes. The second strategy is to reduce costs absolutely by increasing efficiency of the learning outcomes, more individualised and self-paced instruction, more narrow targeting of desired learning outcomes, and reducing the duration by granting academic credit for prior learning.

Relative rates of return for vocational education and training in Australia also are influenced by relative fee structures for VET and higher education, and the length of working lives. Australia has the fourth lowest level of public subsidies for tertiary education, and the implementation of the Higher Education Contribution Scheme and the reduction of subsidies for postgraduate higher education courses has improved the relative investment costs in both initial and continuing vocational education and training. Predicted extensions of working lives in the context of an ageing population should increase returns.

Working lives can also be influenced by pension schemes. Countries display different patterns in the age location of peak earnings, and there is some evidence that investment in tertiary education and training can increase pension returns and extend working lives. Countries do not appear to have used pension and superannuation schemes as a means of developing incentives for investment in education and training. This may provide a profitable area of research and innovation, especially in the context of population ageing.

Returns to vocational education and training also will be influenced by the nature and exportability of the skills required. Countries with high levels of labour mobility and where skills poaching is prevalent, not unexpectantly, show high levels of returns to education and training (such as the United States—and conversely for Germany). More generic skills development, the increasing importance of networks, and higher levels of labour mobility as a means of stimulating innovation should all contribute to raising both private and social incentives for vocational education and training.

Barriers to investing

Regardless of the strong incentives to invest in lifelong learning, individuals won't invest if they don't possess the financial resources (Verry 2000). An individual's ability to invest in education and training can be constrained by a combination of slow real wage growth, as well as high and persistent risk of unemployment (OECD 2001). Despite high private returns, individuals may be constrained to invest owing to a lack of private savings, high interest rates for loans and foregone returns on alternative investments (Wurzburg 2002). Leiken (1999) argues that the poor are facing a crisis caused by the 'squeeze between the need for their learning and their ability to pay' (p.1) and that the increasing inability of the population to access lifelong learning opportunities combined with the higher requirements for employability are placing 'more people at risk of permanent, structural poverty' (p.1).

Unlike higher education, individuals may not want to invest in vocational education and training because they are unable to assess the future benefits from their investment. Many individuals underestimate the returns of 'the labour market risks of not training or retraining in a world of

rapidly changing labour demand' (Verry 2000, p.39). For example, employees may be unsure whether they will be rewarded by their employer for their additional skills or qualifications or if they will be employed long enough to realise a return. Those people unemployed may be unsure whether their additional qualifications will have sufficient value in the labour market to justify their investment (Verry 2000).

The OECD (2000) had difficulty in locating systems that make higher individual investment feasible and equitable, and referred to the trade-off between incentivising investment and maintaining equity. On the one hand, some countries—such as Japan—that provide little state support for learners may create either barriers to participation among young people from families who are unable to pay, or obstacles to achievement among young people forced to pay their way through their studies. On the other hand, countries like Sweden and Norway, which provide generous state financial support to learners and maintain high levels of equity, place heavy demands on public resources.

Inadequate institutional arrangements are also constraining the ability of individuals to pay for the costs of lifelong learning out of past or future earnings. This finding led the OECD (2000) to recommend exploring new ways of increasing the coordination and coherence of funding systems, including greater coordination between different participating ministries, different levels of government and other social partners.

Data on barriers to study and training from the Australian Bureau of Statistics (ABS) 2001 *Education and Training Experience* survey found that many people aged between 15 and 64 years (and who are not at school) did not want to study or undertake training (table 21 in the appendix). Eighty-one per cent of males and 78.6% of females did not want to enrol in a school or non-school-level qualification. In the 12-month period prior to being interviewed, 75.5% of males and 76.4% of females did not want to undertake an internal training course, external training course or on-the-job training. People aged 45 and above were more likely to not want to enrol in a qualification or undertake training.

Compared to other age groups, people between the ages of 25 and 34 years were more likely to want to enrol in a qualification or undertake training but were unable to. A slightly higher proportion of females (21.4%) than males (19.5%) wanted to enrol in a qualification, whereas a slightly higher proportion of males (24.5%) than females (23.6%) wanted to undertake training in the previous 12 months but were unable to. Overall, a higher proportion of Australians surveyed wanted to undertake training (24.1%) than enrol in a qualification (20.4%).

The key reasons given by males for not being able to enrol in a qualification or undertake training were: 'too much work', 'no time', 'financial reasons', and an additional reason, in the case of training, was 'lack of employer support'. For females, the key reasons were: 'no time', 'financial reasons', 'caring for family members', and an additional reason, in the case of training, was 'too much work'. Young people (between the ages of 15 and 19 years) cited 'course or qualification related reasons' and 'financial reasons' for not being able to enrol in a qualification or undertake training.

The Australian National Training Authority (ANTA) *National Marketing Strategy for VET* released in June 2000 identified barriers to participation in vocational education and training according to eight market segments that consist of people with different individual learning attitudes, learning habits, demographics, and media /leisure preferences. The report stated that 21% of the community are 'passionate learners' and a further 6% are 'almost there'. Similar to findings in the ABS survey on education and training experience, this report implies that the majority of Australians lack interest, or a perceived need, in skills development and learning, or face barriers to participation in skills development and learning.

Table 1 lists barriers to participation in learning for each market segment. If we compare the demographics of 'passionate learners' to the demographics of people in the market segment of 'make it easier' (these people have the highest perceived barriers to participation), it is easy to understand why participation in learning is vastly different for people in these two groups. The characteristics of

'passionate learners' are typically women, aged between 16 and 44 years, tertiary qualified, single (never married and separated), metropolitan based, not living with a disability, from an English speaking background, employed as managers /administrators, professional or para-professional, and have an income over $40 000 per annum. Those in the market segment of 'make it easier' typically include women aged between 45 and 64 years, women aged 65 years and over, people with a disability, and people who are either not in the workforce and not actively looking for work (such as unemployed, pensioners, retired, home duties) or are working as clerks (and similar to their supervisors) finished full-time education at 16 years of age or younger. They usually have low incomes of less than $20 000 per annum.

Table 1: Barriers to participation in learning by market segment

Market segment	Attitudinal characteristics	Barriers to participation (or further participation)
Passionate learners (21% of the general community)	People who value learning and are highly likely to learn in the future	Past negative experiences of teaching, poor information, lack of information and cost
Almost there (6%)	Those who value learning but see barriers to learning, nevertheless showing high intention of learning in the future	Fear of technology, fear of failure, past negative experiences with unhelpful teachers, financial costs, lack of time, child care responsibilities, and barriers experienced by people with a disability
Learn to earn (17%)	People who only value learning related to jobs and qualifications and are highly likely to learn in the future	Long-term learning may be difficult to maintain if they fail to see further benefits being delivered
		Lack of support from employers, colleagues and careers advisors in managing competing demands on their time and resources
Might give it away (7%)	People who place little value on learning but show high intention to learn in the future	Pessimistic and not confident that learning will deliver benefits such as jobs or work-related benefits
Make it easier (16%)	People who value learning but see barriers to learning and are less likely to learn in the future	Face the highest perceived barriers to participation in learning of any segment. Many of the barriers included in this table
Learning on hold (11%)	People who only value learning related to jobs and qualifications and are less likely to learn in the future	Don't see the point of learning now and don't much want to be persuaded
Done with it (14%)	People who only value learning related to jobs and qualifications and are less likely to learn in the future	Do not see the relevance of learning now. Learning is about earning so if they have achieved what they wanted from their work lives, their learning is done
Forgot it (8%)	People that least value learning and are less likely to learn in the future	Previous learning hasn't got them that far, no love for learning, and that learning will not help them achieve their goals

Source: Compiled from ANTA National Marketing Strategy for VET (2000)

Conceptual framework

The mechanisms described in the following chapters have been mapped within a conceptual framework. Key questions derived from the conceptual framework have been used to analyse each mechanism within its context(s) and identify issues that are important to its effectiveness.

The following points were taken into consideration when developing the conceptual framework:

- The idea of increasing individual contributions towards vocational education and training is tied up in the premise that vocational education and training is both a private and a public good. Public investment in education has been based upon its perceived value for the public good. Fee-based education and training is based upon the perception of a predominant private good.
- Vocational education and training has been seen as a significant public good—the skills base for industry and the economy. In recessionary periods, and, subsequently, in periods of major labour market change, it also has been seen as a means of addressing the social issue of unemployment. Vocational education and training also has been seen as a significant good for

enterprises, and governments have attempted to design means of encouraging enterprise-based investment in vocational education and training.

- ✧ Public and private interests intersect within the principle of equity. Equity can either be seen as a social asset that contributes to social cohesion, or as an absolute end in itself. Given vocational education and training in Australia has a significant role in providing education and training for sections of the population that tend to have weaker educational records and lower incomes than those in upper secondary and higher education, equity is an important principle.
- ✧ The emergence of mass post school education and training and the concept of lifelong learning have led to two sets of demands. First, the capacity of governments to finance education and training is limited, especially in the context of other funding demands and fiscal constraints. Second, individual responsibility for education and learning has become more significant.
- ✧ The concept of individual investments in learning, therefore, is associated with objective and subjective judgments about the value of the learning and the priorities for investment. Therefore, it is suggested that the conceptual framework should be built around this concept.

In brief, the concept is as follows: *Individuals will invest in vocational education and training when they see value in or returns to this investment.* The investment has various costs, and the returns need to be considered against the costs. The returns are in various forms and can be seen as short and long term. Subjective perceptions of value and costs are influenced by a variety of individual and environmental conditions. Governments also should have a perception of where public investment is least warranted, and where private investment is most wanted.

The concept shown diagrammatically in figure 3 has the following assumptions:

- ✧ Decisions to invest will be made upon the basis of individual perceptions of the value of or the returns from the investment.
- ✧ Value needs to be considered against the costs—financial (mainly fees), opportunity and loss of wages.
- ✧ Value can be seen as both economic and as social or intrinsic. Economic value is typically the financial and employment returns to the investment, and this will lead to different relationships with the costs. Social or intrinsic value can be associated with status value.
- ✧ Perceptions of value (public and private) will vary over the short and long term, with VET investments typically being seen more in the short term by individuals and governments (for example, see Wolf 1997) than are general or academic qualifications.
- ✧ Decisions by governments to invest should be based upon their perceptions of the public value, including factors such as equity.
- ✧ Perceptions of value and of value against costs will be influenced by a variety of contextual factors.

Figure 3: Concept of individual investments in learning

	Environment contextual factors	**Personal contextual factors**	
	Public value	Private value	
Economic value			Costs
Social or intrinsic value			Costs
	Long and short term	Long and short term	

This framework is explored through a series of questions considered sequentially in table 2 and influenced by a large number of variables. At the *general* level they include:

Gender: The labour market in Australia, especially for VET graduates, is very different for men and women, and apparent rates of return for VET qualifications vary between men and women.

Age: Older people will have lower potential returns on VET investments, as they have few working years in which to realise the returns.

Industry sector: The returns to vocational education and training vary across industry sectors, which, in turn, are influenced by factors such as:

- ✧ Firm size: Larger firms typically employ more highly qualified workers, and have internal compared with external labour markets.
- ✧ Ownership: Foreign-owned firms tend to employ more highly qualified workers.
- ✧ Employment basis: Sectors with higher levels of contingent employment (part-time, casual) tend to value qualifications less.
- ✧ Technological and skill base: More high tech/knowledge-based firms will recruit better qualified workers.
- ✧ Growth: Growing industries provide greater employment opportunities and higher levels of labour mobility, and more incentives for individual investment in skills.
- ✧ Rate of change and innovation: Innovation typically will require re-skilling.
- ✧ Labour mobility: Industries with high levels of mobility (such as information technology) may be conducive to higher levels of individual skills investment.
- ✧ Regulatory structures—especially licensing and qualifications based awards: Regulated industries provide incentives for investments in skills at the entry level, although not necessarily at the continuing level.
- ✧ Whether public or private: Public sector enterprises/organisations typically recruit more on the basis of qualifications and have employees with higher levels of qualifications.

Costs of the investment: Costs of the investment include financial costs and opportunity costs. Both can be reduced through delivery modes and means of shortening the VET program, especially recognition of prior learning and credit transfer.

Quality: Individual perceptions of the quality of the VET program will influence decisions to continue to invest.

Capacity of the qualifications: The capacity of a qualification is influenced by the institutional reputations and links, and the strength and breadth of networks associated with the qualifications. These networks can include formal networks such as unions.

Characteristics of the individual: Patterns of individual investment in education and training, including vocational education and training, are influenced by previous levels and experiences of education and training. Success in initial formal learning is strongly correlated with investment in continuing learning.

Table 2: Exploration of the concept

Question	Details	Discussion
1 What is investment by individuals? What are the costs?	✧ Financial investment in fees and other direct costs ✧ Investment of time—opportunity costs ✧ Lost working hours and remuneration	✧ Costs are related to the type of program, and to individual circumstances (e.g. employed versus non-employed)
2 What are the options for individual investment?	✧ Up-front fees—common structures ✧ Up-front fees—differentiated structures (based upon course costs, capacity to pay, etc.) ✧ Income contingent loans ✧ Value-added loans	✧ VET costs typically are lower than HE costs: So should public investment be a proportion of costs, or a flat rate—like a voucher? ✧ What is known about these methods when used internationally and in other sectors?
3 Why is individual investment desired?	*Public good:* ✧ Increase national skills base ✧ Promote lifelong learning ✧ Social justice and equity ✧ Social/community management—social capital and cohesion *Private good:* ✧ Economic returns—short and long term ✧ Social/intrinsic returns	✧ Is there a difference between initial and continuing education and training? ✧ Is VET primarily economically oriented, or does it have a generalist and social capacity? ✧ How are responsibilities for lifelong learning shared?
4 What are the incentives for investment?	✧ Short and long term rates of return ✧ Progression routes or pathways ✧ Interest and personal skills base e.g. languages ✧ Personal satisfactions ✧ Accessibility and adaptability of programs—relevance ✧ Learning modes and assessments	✧ Rates of return variable across programs, providers and geography ✧ Strong at male diploma level—weak at female certificate levels ✧ Progression routes in place, but traffic is modest (e.g. myth of the cheap cocktail degree) ✧ Quality as an incentive
5 What are the disincentives?	✧ Returns against costs may be poor ✧ Weak progression routes ✧ Intrinsic value may be weak ✧ Lack of flexibility in some areas	✧ Returns compared to HE are weaker ✧ But there are high return VET programs ✧ There are distinctive VET programs—entry level, recreational, compensatory—second chance, para-professional, skills enhancement etc. This differentiation could be used for initiatives.
6 What are the relevant characteristics of the VET sector?	✧ Multi-purpose roles and clients ✧ Federalist arrangements have a heavy impact upon VET ✧ Use of VET in employment programs e.g. Youth Allowance	✧ There are large differences between a 'youth allowance' client and a post-graduate VET client ✧ However, to some extent the current funding arrangements acknowledge this
7 What are the characteristics of the clients?	✧ Mainly part-time students ✧ Weak and somewhat residual initial post-secondary demand ✧ Social composition of the sector compared with HE	✧ Disadvantaged groups more likely to use VET—low income, isolated, people with poor educational records, Aboriginal people ✧ But many people using VET are in work—including university graduates ✧ Clients have multiple purposes: Mainly economic, but not always
8 What contextual factors should be considered?	✧ VET and the economic cycles ✧ Industry contributions to VET	✧ Need for counter-cyclical investments (re Europe) ✧ Counter-cyclical VET investment has been a government response, but not an industry response ✧ Are there possible incentives for counter-cyclical individual investment?

Note: HE = higher education

Individual learning accounts

Individual learning accounts (ILAs) are savings accounts opened by individuals for the purpose of accumulating funds to pay for their education and training. Usually the government and/or employers also make contributions to an individual's learning account. Individual learning accounts were piloted in the United Kingdom prior to the introduction of the national individual learning accounts framework in September 2000. Individual Development Accounts (IDAs) have existed in the United States for some time.

Definitions of individual learning accounts imply individual responsibility for learning, choice and shared costs:

- *United Kingdom*: An individual learning account is a mechanism to enable individuals to plan, manage and invest in their own learning in order to improve their future employability and realise their full potential (European Learning Account Partners' Network 2000, p.1).
- *Scotland*: Individual learning accounts aim to help overcome financial barriers to learning faced by individuals, and to widen participation in learning, by offering a facility to pay for their learning through their lifetime (Scottish Parliament 2001, p.5).
- *Sweden*: Individual learning accounts are an opportunity for all adults to finance their own needs for competence development throughout their working life (Lönnberg 2000, p.1).
- *The Netherlands*: An individual learning account is a saving account for both those in work and job seekers that can only be utilised for training purposes (Doets & Westerhuis 2002, p.6).
- *United States*: Lifelong Learning Accounts are self-managed, universal, portable and funded by adult workers themselves and matched to an established cap by employers and third party sources (Council for Adult and Experiential Learning 2002, p.1).

This chapter details features and outcomes of individual learning account schemes in The Netherlands, Sweden, United States and the United Kingdom. These schemes vary in size (ranging from a target of 400 account holders in the United States scheme to 1 million account holders in the United Kingdom scheme), what the funds can be used for (for example, the Swedish scheme allows for course fees, course literature and living expenses), target group (for example, The Netherlands scheme is targeting low qualified and low/average wage employees), contribution amounts, and marketing strategies. In most cases, contributions made by employers and employees are tax deductible.

The United Kingdom's national approach does not appear to have successfully attracted sufficient employer contributions to individual learning accounts or increased participation by people who have a low income and/or limited or no qualifications. As shown in figure 4, the majority of participants had existing qualifications and were employed, and many participants were 'deadweight'—that is, they would have paid for the course without an individual learning account. The scheme did attract significant investment by individuals of over £23 million in England (as at April 2001) and £8.1 million in Scotland (as at September 2001) in a relatively short period of time, given its commencement in September 2000.

Although it is too early to evaluate the schemes in The Netherlands and the United States, they are focusing more on securing employer contributions, tailoring the individual learning account to a particular sector or company type, using a 'small-is-beautiful' approach—that is, each project is

managing a small number of accounts—and targeting those employees with the greatest need for training. Findings to date about the success of marketing activities and administrative systems suggest that localised rather than large-scale initiatives are proving more effective. To ensure learners are receiving the training they need, the United States scheme requires employees to select career-related education and training that is consistent with a learning plan devised with an educational/ careers advisor.

Ongoing debates about the proposed scheme and other difficulties have led to a postponement of the introduction of the scheme in Sweden in 2003.

In November 1999, the Department of Education and Skills in the United Kingdom established the European Learning Account Partners' (ELAP) Network to work with the European partners of Sweden, The Netherlands, the Basque Region of Spain, and Switzerland. Two of the key expected outcomes of the project are a common understanding of how the mechanism can be used to finance learning, and the development of a framework within which different individual learning account schemes can be piloted and implemented.

The Netherlands

Eight one-year individual learning account pilot projects conducted by three types of organisations (Sector Training Funds, Regional Educational Bureaus and Regional Education Councils) commenced in February 2001. Up to 100 firms are participating for different reasons. Firms from the Care and Welfare Sector are using individual learning accounts to implement collective agreements; small to medium-sized enterprises now have resources to invest in training of their employees; and other firms are retraining lowly qualified staff.

Each project is required to open 150 learning accounts. There are two categories of projects: (1) the project organisation's case manager has direct contact with the individual learning account owner; and (2) the relationship is with the employer and individual learning account owner. The individual learning account is in the name of the employee or job seeker who can only use the individual learning account to pay the costs of a course, which is usually targeted training directed to the occupational career and not for leisure or recreational purposes, except when there are real consequences for employability. The employer and employee decide together about training, based on a personal development plan. The central government contributes a maximum of 454€, and employer contributions vary between projects, from 113€ to 454€. Contributions can be 'cash in hand' and training vouchers.

The National Centre for the Innovation of Vocational Education and Training (CINOP) was appointed as the independent agency to support, monitor and evaluate the pilot projects. The interim evaluation reports completed by participating organisations addressed the profile of the implementing organisation, form and organisation of the learning account, recruitment of participants, and participants involved. The key findings from the evaluation are as follows (Doets & Westerhuis 2002):

- ✧ Most of the participants belong to the target group of low qualified, on an average or below average wage, and would not have otherwise engaged in training.
- ✧ There were four main motives why individuals opened an individual learning account: gives participants the feeling that they can choose themselves; stimulates reflection about their own wishes for training; introduces the space to organise one's own learning; and gives the feeling that they are being taken seriously.
- ✧ Participants were recruited through the employer, employability advisers of branch organisations, advertisements in free papers, and direct mail to ex-clients of the social service department. Firm representatives approaching potential employees was the most effective method in recruiting participants.

- ✧ Individual learning accounts can be organised via different actors, and works in context of both small and large firms.

The evaluation identified questions about financing, compensation (what can be paid for), the users (open to everyone or just employees), and providers (how do they respond to learning accounts). It also led to the following recommendations:

- ✧ The actual management of the individual learning account (content, purchase and payment) is best placed in the hands of the individual. Individual learning account as a 'real' account is preferred over vouchers or 'virtual' accounts whereby the individual has a view of the transaction but carries no responsibility for them.
- ✧ Differences in motivation and the usefulness of the individual learning account between diverse sectors call for more tailor-made and sector-specific arrangements in further implementation of the individual learning account.
- ✧ Individual learning accounts should be integrated in the total training policies of an organisation, such as human resources policy.
- ✧ Support from a third neutral party is needed to advise on shortfalls in knowledge and skills in relation to the appropriate funding required.

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Sweden

In 1999 the Swedish Minister for Industry, Employment and Communications appointed a Commission to investigate models to encourage individual competence building. Based on the view that competence development is a 'tripartite responsibility of the state, the individual and the employer' (Lynél 2003, p.12), the Commission recommended that individual learning accounts would allow for the long-term planning of competence building by individuals and employers.

The scheme proposed by the Commission had the following features (Lynél 2003, p.8):

- ✧ A voluntary system of individual learning accounts with tax relief, with tax rules similar to pension savings and pension insurance.
- ✧ Individuals who withdraw funds for competence development would be entitled to a tax deduction—a 'competence premium'—the size of which would depend on the scope of the learning program. A program of at least 200 days (40 weeks) would be regarded as full-time and the individual would be entitled to a maximum premium of SEK 9425 (25% of the base rate). The premium would be reduced proportionally for shorter periods, and the minimum period allowed for competence development is five days.
- ✧ Taxes are levied at 15% when contributions are withdrawn and on the return of accumulated funds.
- ✧ Maximum base rate each year for tax relief of SEK 37 700. When the balance of a learning account exceeds 12 base amounts or SEK 452 400, further contributions will not be entitled to tax relief.
- ✧ Employers are also entitled to tax relief on contributions made to an individual learning account.

Hearings were held in April 2001 in response to the Commission's proposal. Although stakeholders were generally in favour of the individual learning account system, there were a number of criticisms. Firstly, the savings-based model would not target those individuals who may have limited scope to save and are most in need of support for competence development. Secondly, employers argued that if they are going to contribute to individual learning accounts, they have a right to an

explicit and active role about how the accounts are used. Thirdly, some authorities argued that the open and generous system may jeopardise the quality of competence development.

A guideline bill tabled on 15 April 2002 outlined the key features of Sweden's individual learning account scheme to commence in July 2003 (European Industrial Relations Observatory 2002 & Lönnberg 2000). The features of the scheme are similar to those proposed by the Commission; however, there were some changes: tax deductible savings are limited to 25% of the base amount of SEK 9500 rather than SEK 37 700 proposed by the Commission; funds withdrawn from the saving account would be liable to the full capital income tax rate of 30% rather than the proposed 15%; given the minimum period of five days for competence building, the competence premium is supported by a fixed amount of SEK 1000 that can be obtained every third year irrespective of the number of days; and the lower age limit for the competence premium is 25 years, which is designed to prevent younger people from postponing their university education.

The key principles of the scheme are as follows (International Labour Organisation 2002, p.2):

- The general individual learning account system should be accessible to everyone.
- The individual learning account system should be voluntary and based on individuals themselves choosing to start a learning account on their own initiative and determining how they are to be used. The system should not be dependent on the employer's willingness to contribute to a learning account.
- Individuals determine the form of competence development they wish to participate in and the definition of 'eligible' competence development should be broad and generous.
- The system should not take over or replace other measures for adult competence development, but should be seen as a complement and an addition to what already exists today. Employers are still responsible for competence development related to their activities.
- The general system should be supplemented by agreements which lead to the participation of employers and provide incentives for employers to contribute to an individual's learning account.
- The system should be as simple and as transparent as possible.

The Swedish Agency for Public Management presented a report in August 2002 on the different options for administering the individual learning account system. These arrangements or functions included the administration of learning accounts; approval of education and training providers; establishment and approval of the competence premium including the fixed amount; and information, counselling, follow-up and evaluation. After analysing the options for coordinating these functions (such as having one coordinating body or a number of different bodies sharing the functions) the report recommended the following:

- The Premium Pension Authority would administer the learning accounts.
- The National Agency for Education would administer and approve education and training providers.
- The National Board for Student Aid would approve the competence premium and provide information and counselling.
- Research institutions would evaluate and analyse the individual learning account system from different perspectives.

Lynél (2003) concluded that criticisms made during the April 2001 hearings, technical difficulties (relating to tax legislation, administration and organisation of the system) and difficulties in reaching agreements on how to design the control mechanisms for courses and providers have led to the postponement of the introduction of the scheme in 2003.

United States

The Council for Adult and Experiential Learning (CAEL) established three demonstration Lifelong Learning Accounts (LiLAs) projects in October 2001: in the Chicago restaurant industry (commenced October 2001 for 125 participants); in Fort Wayne's (Indiana) manufacturing and public sectors (commenced July 2002 for 150 participants); and in San Francisco's allied health sector (to commence in 2003 for 125 participants). Lifelong Learning Accounts are a new method of increasing individual and employer investment in employee training and education (Council for Adult and Experiential Learning 2002, p.1).

The three projects are targeting low-income workers with limited access to educational opportunities. Employers involved have a workforce that includes a significant portion of low-wage or low-skill jobs. All current employees of the participating employers are eligible so 'no worker feels stigmatised by participating in the program' (Council for Adult and Experiential Learning 2002, p.2).

Funds can be used to meet career-related education and training costs, including fees/tuition, books, computers and software (when required for course work), supplies and materials. Funds cannot be used for on-the-job training, exercise courses, transportation, day care, food and travel. Individuals choose career-related education and training that is consistent with the learning plan devised with an educational and careers advisor.

Employers match individual contributions dollar for dollar up to $500 a year. Third party matches are also possible to enable individuals to leverage additional funds for training and education expenses. Employees are expected to contribute at least $120 a year to ensure employer and third party match. An example of a Lifelong Learning Account is shown in table 3.

Table 3: A sample Lifelong Learning Account (LiLA)

Cost of Dietary Manager Certificate course (including books)	US$684.00
Employees' monthly contribution	$21.47
Employer's monthly contribution	$21.47
LiLA project match	$42.94
Total monthly accumulation	$85.88
Number of months needed to save for program before enrolment	8 months
Alternative scenario: if employee has $171.75 of personal savings at the start of the project, he/she can begin classes.	

Source: Council for Adult and Experiential Learning (2002)

An evaluation conducted by Public Policy Associates will, for example, determine if and how the program influences the behaviour of individual workers and employers, recommend continuous improvement of the model, and address key questions to inform federal and state policy.

United Kingdom

Following the piloting of a variety of individual learning account models at a local level, the national individual learning account framework commenced in the United Kingdom in September 2000. Although it provided for universal eligibility, it did target specific groups: 19 to 30-year-olds with few or no qualifications, non-teaching school staff, people returning to the labour market and the self-employed. The framework aimed to:

- ✧ contribute to a better-equipped workforce
- ✧ increase levels of private (individual and employer) investment in learning
- ✧ increase levels of participation and achievement in learning activities
- ✧ repay public investment in individual learning accounts through increased earnings

- ✧ enable people to have a personal stake in society, with greater control over their own development
- ✧ raise an individual's expectations of the benefits of learning.

The Individual Learning Account Centre (covering England, Scotland and Northern Ireland) was established to provide a call centre and administrative services. Training and Enterprise Councils (TECs) performed these functions in Wales.

Funding support of £150 was provided to the first one million account holders on the condition that they contribute at least £25 to the cost of learning. Account holders were also eligible for a discount of 20% (up to a maximum of £100) on the cost of wide-ranging courses; and a discount of 80% (up to a maximum of £200) for courses focusing on basic core skill activities—for example, introductory information and communication technologies and numeracy courses in England.

Employees were not subject to tax or National Insurance contributions on an employer's contribution to the course supported by an individual learning account, as long as the employer extended the facility to the lowest paid employees in the company. The employer's contribution was tax deductible.

Individual learning accounts could be used to pay for learning costs—for example course fees—but not for books, learning materials, computer hardware, childcare, travel and courses already started by the individual. Some courses were exempt. For example, in Scotland the following courses were exempt: secondary education, full-time higher education courses, professional qualifications, learning which is a statutory requirement of the individual's particular employment, work-related learning, lessons towards attaining driving licence category A or B, courses given as a reward or inducement by an employer, private flying lessons, diving lessons, outward-bound-type courses, and leisure or sporting activities (unless at level 2 or above, or resulting in a recognised coaching/ teaching qualification).

To encourage further uptake of individual learning accounts from some of the key target groups, further pilots were undertaken such as the Small Firm Learning Accounts and community individual learning accounts in England.

At the end of April 2001, 923 826 individual learning accounts (equivalent to £23 million) had been opened in England and 409 581 had been redeemed. The statistics in table 4 on individual learning accounts in Scotland show an outcome that was common for the United Kingdom: many people opened an individual learning account but did not enrol in a course.

Table 4: Statistics on Scottish individual learning accounts (as at 30 September 2001)

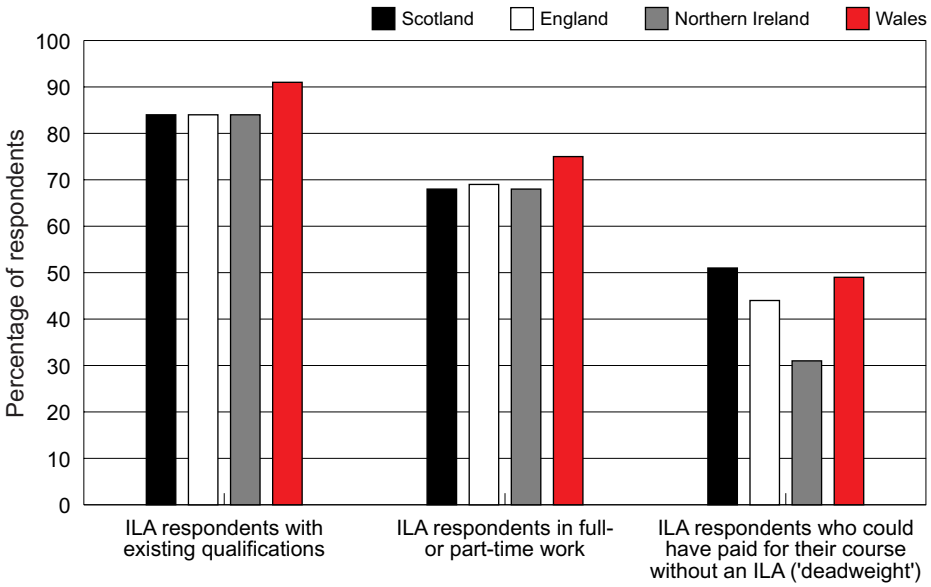
ILAs opened (57% by females)	202 266
Active members	77 482
Learning episodes registered (58 886 for 20% discounted courses and 25 619 for 80% discounted courses)	84 505
Learning episodes completed	40 110
Paid to learning providers	£9m
ILA members' personal contributions	£8.1m
Employer & 3rd party contributions (valued at £434 260)	2 374
Average cost of learning	£208
Repeat use of ILAs:	
Registered on 2 courses	4 518
Registered on 3 or more courses	1 143

Note: ILA = individual learning account

Source: Scottish Parliament (2001)

The majority of individual learning account holders were employed or self-employed, and a higher percentage of holders were female. As shown in figure 4, a sample of individual learning account holders surveyed shows that the vast majority already possessed some form of qualification, the majority were in full-time or part-time employment (68%), and many were referred to as 'deadweight'—that is, they would have undertaken learning anyway without the individual learning account.

Figure 4: Some characteristics of individual learning account (ILA) holders in the United Kingdom



Source: Scottish Parliament (2001)

Targeted marketing of individual learning accounts to particular client groups had very little impact. Learning providers, family/friends and newspaper/radio advertisements were the major sources of information. The most common reasons given for opening an individual learning account were to develop new skills; get a new or better job; obtain qualifications; and personal development.

In July 2001, concerns about abuse by providers in England led to the introduction of: a new learning provider agreement; a guide for individual learning account holders with advice on choosing learning; changes to the application process; and a series of audits and inspections. These measures failed to prevent further abuse, and the program was suspended on 7 December because of serious allegations of potential fraud and aggressive mis-selling. Some people had been signed up for training that didn't meet their needs, and/or had received low value, poor quality training.

The report on a new individual learning account scheme for the United Kingdom, released in April 2002, recommended a number of features that were not available or inadequate in the initial scheme (Department of Education and Skills 2002). These features included quality assurance systems with learner feedback; the availability of information, advice and guidance for learners; holding back part of the sum paid to providers until the learning is completed; and an application process (available in a range of means) where individuals register themselves.

Mapping of individual learning accounts against conceptual framework

What is investment?	Investment is a financial contribution made by the individual into a savings account that is supported with contributions by government and/or the employer.
What are the options for individual investment?	Individuals make a minimum contribution before the government and the employer will contribute. Funds are used for course fees only in some schemes whilst other schemes allow for funds to be used for other costs.
Why is individual investment desired?	The schemes primarily aim to increase participation in learning, particularly by those most in need, and lead to a greater financial contribution by the individual to the cost of learning.
What are the incentives for investment?	Participants have greater control over the learning, and ILAs can assist individuals to develop new skills, become more employable, obtain qualifications and for personal development. Contributions by employers and employees are usually tax deductible.
What are the disincentives?	Individuals cannot afford the minimum contribution, may not get the training that they need, and are unable to determine a return from their investment.
What are the relevant characteristics of the VET sector?	ILA schemes are being used in countries with different VET structures and financing arrangements.
What are the characteristics of the clients?	Some schemes have universal eligibility and most aim to target individuals in need, such as low-qualified and low-wage employees.
What contextual factors should be considered?	Factors to be considered include the ability of the system to manage a large number of account holders; the role of trade unions and peak bodies in encouraging employer contributions; current financing arrangements (including what individuals currently pay for, and the extent of, their contribution); level of educational attainment of individuals; and ability of the taxation system to allow for deductible contributions.

Note: ILA = individual learning account

Student loan schemes

One approach to increase funds from private sources is student loans—a cost-recovery mechanism designed to have students pay for at least part of the cost of education and training. Student loans have been advocated as an approach that has the potential to yield resources on a large scale (Palacios 2003).

Student loans may take several very different forms, but all forms have in common the assumption that some of the costs of education and training—either the costs of instruction (that is, tuition), or other educational costs (such as books and supplies), or the costs of student living (such as room, board, and other expenses)—are met by the student, not at the time of study, but at some time in the future. Under each form, a lender (whether the education provider, government, a bank, or similar agency) bears the up-front costs, but will get repaid, often with interest, by the student as borrower (perhaps with the government's help).

There are several types of student loan schemes: (1) conventional or mortgage-type loans, (2) graduate taxes, and (3) income-contingent loans. This section looks at each type of scheme. Particular attention is given to income-contingent loan schemes and their potential for use in Australia as a mechanism for funding vocational education and training.

Conventional or mortgage-type loans

Traditional or conventional loans operate in the same way as mortgage loans, requiring fixed payments for a specific period of time. Students are provided with an amount of money, which they borrow from a bank, government or other loan agency, to cover the costs of instruction, study and general living expenses. After completion of study or withdrawal, students are required to repay the loan within a specified period. The amount that students have to pay each period depends on the total amount borrowed, the interest rate, and the repayment period. Loans can be in the form of commercial private loans or government-guaranteed student loans. The government may take an active role by selecting candidates or establishing regulations.

There are several examples of conventional student loan schemes. The Netherlands provides student grants and loans for students in vocational education at upper secondary level as well as for students in professional and university courses. There are three types of student assistance: basic grant, supplementary grant and a student loan. All students, irrespective of income and course of study, are eligible for the basic grant. In addition, depending on parental income, students can claim a supplementary grant. At upper secondary level, both basic and supplementary grants are non-repayable.

In addition to the basic and supplementary grants, students may also take out loans that are not related to parental income, but must be repaid. Any student in receipt of a basic grant can take out a loan, irrespective of their parents' income, which must be repaid after they complete their course. Loans only have to be repaid after completion of the course of study if the borrower has an income above a threshold level. Loans need to be repaid within a 15-year period. For students in higher education the basic and supplementary grants awarded to students in higher education are performance-related. The system is based on the principle of 'loan then grant'. Students receive their grants initially in the form of a loan, which are converted to a non-repayable grant if they meet

certain performance criteria. If they do not meet the criteria then the grant is treated as a loan and must be repaid within 15 years.

Canada has had a student loan scheme in place since 1964. Aimed at covering tuition costs and other expenses, the scheme assists students to enrol, pursue and complete their post-secondary education and training leading to a degree, diploma or certificate in programs of 12 weeks or more in duration. Each year, the scheme provides $1.2 billion in loans to over 315 000 students in post-secondary programs at universities, community colleges and private colleges in Canada (Human Resources Development Canada 1997). Student assistance is based on federal–provincial government partnerships. Participating provinces determine individual eligibility based on federal criteria, assess student financial needs based on federal criteria, award the aid by issuing a loan certificate, and designate institutions which students may attend with Canadian Student Loan Program (CSLP) assistance. The federal loan certificates are issued by the province to the students. The students then take them to private sector lenders who issue the loans. During full-time studies, borrowers receive a full interest subsidy paid by the federal government to the lender. After leaving studies, borrowers must consolidate their loans, assume responsibility for interest, and begin, within six months, to make payments. If borrowers experience low income or unemployment, they may apply for up to 18 months of interest relief during the first five years of repayment.

An evaluation of the impact of the Canadian Student Loan Program found that about 40% of Canadian post-secondary students use the program (Human Resources Development Canada 1997). For students doing vocational courses in community colleges about 35% were funded through the scheme. A large majority of the students reported that the support received was vital to their ability to pursue post-secondary education. Overall, an estimated 78% of the Canadian Student Loan Program borrowers claimed that they would not have enrolled if they had not received a student loan. However, while the evaluation found that the loan scheme had been important for students currently enrolled, particularly disadvantaged students, the review of enrolment patterns and existing research looking at influences on enrolments failed to establish any consistent relationship between loans and enrolments. In other words, the provision of student loans had not worked to encourage enrolments. According to the results of a review undertaken for the evaluation, student loan schemes have less of an impact on post-secondary enrolments and enrolment decisions than grant schemes in which students receive non-repayable grants from governments.

Graduate taxes

Under student loan schemes, repayments are required once students commence earning and continue until the loan is repaid. An alternative form of repayment is a graduate tax. Under a graduate tax scheme, the state pays for the initial tuition costs associated with education and training and recovers part or all of the cost through the imposition of an additional tax or surcharge on earnings. While the term ‘graduate’ tax is used, it would also apply to those who undertake study but do not graduate. The tax is a form of user charge, and therefore could accumulate for each year that the student attends the college, university or other institution of education and training. Percentage tax rates could vary with income level, years of education and training, and with the type of study completed. For example, a higher percentage could be applied to high-cost courses or to training that extends over many years, and lower rates to courses of short duration or low cost of provision.

Unlike schemes involving the repayments of a loan determined by an amount borrowed or applied to study, graduate tax schemes involve an impost that is levied over an individual’s working life. Therefore, where, in the case of loans, there is a creditor–borrower relationship between the government (or other lending agency) and graduate, the agreement or relationship terminates when the original loan has been repaid. In the case of a graduate tax, the government’s involvement takes more of the form of an equity holder, with the government entitled to a share in the benefits of higher education, in the form of a percentage of the graduate’s income over his or her working life.

Graduate taxes have not yet been implemented in any country, and therefore there are no examples for comparison and analysis. However, various schemes have been proposed and evaluations of potential cost recovery have been undertaken. Albrecht and Ziderman (1991) used Australian data to compare the effectiveness of student loans, income-contingent loans and a graduate tax. They provided simulations assuming a 2% graduate tax collected for 30 years and compared this with income-contingent loan repayments for 17 years and repayments from a conventional student loan for 10 years. They reported that 'whereas an income contingent loan scheme achieves only 9% cost recovery, a graduate tax would result in roughly full recovery of the equivalent loan for 20% of teaching costs' (Albrecht & Ziderman 1991, p.49). The cost recovery for a graduate tax would be double that for an income-contingent loan or conventional student loan operated under similar assumptions.

Jacobs (2002) undertook an assessment of the consequences of replacing government subsidies and student loans for education and training in The Netherlands with a graduate tax. He constructed a simulation model based on empirical wage profiles to analyse a graduate tax loan system of education finance. The results suggested that a graduate tax on earned income of 6% would recover all of the tuition costs associated with education and training (see table 5).

Table 5: Graduate tax rates required to recover costs of education and training in The Netherlands, by levels of government subsidies

Cost of training	Annual costs covered (EURO €)	% tax required to recover costs
Vocational (annually = 8420)	8420	
All costs	8420	5.9
Subsidies of:		
2119 (25%)	6301	4.4
4237 (50%)	4183	2.9
6355 (75%)	2065	1.5

Source: Jacobs (2002)

If 75% of the costs of education and training were to be recovered then a 4.4% graduate tax would be required. If the government was to subsidise the costs of education and training, then graduates or participants in education and training would be required to pay a tax surcharge of 1.5% per annum across their working lives.

One criticism of graduate tax schemes is that it is possible for tax payments to continue long after a loan would have been repaid. Another is that many tax systems are progressive, and since graduates are likely to earn more than non-graduates they will pay higher taxes to contribute to services such as education and training through the tax system itself anyway.

Income-contingent loans

Another cost-recovery student loan mechanism is the system of income-contingent loans. An income-contingent loan involves cost-recovery for education and training fees through the payment of a percentage of income from a graduate or former participant once they start earning. Payment is dependent on reaching an income threshold. This means that those who are on low incomes do not have to make payments until their earnings are above the income threshold. Payment of the loan continues until the value of the loan has been repaid or until a maximum repayment period has been reached.

There are several examples of income-contingent loan schemes. New Zealand operates a system of income-contingent loans for higher education. Universities set fees for study and students can obtain loans for covering the costs of fees and living expenses. The fees can vary from university to

university and across courses. The loans available to students are income-contingent, with repayments collected by the government tax authorities. Students repay their loans once they earn income above a threshold. Student charges through the New Zealand scheme account for about 25% of tuition costs (Barr 2001).

Two types of income-contingent loan schemes operate in Australia. The first scheme is the Higher Education Contribution Scheme (HECS) which applies to study in undergraduate and post-graduate courses. Students enrolled in a Higher Education Contribution Scheme-liable course are required to repay part of the costs of their courses and the Commonwealth Government pays the remainder. The Commonwealth sets the amount students are required to contribute, and most students can choose to pay the costs up-front or defer payments until they start employment. Until 1996, the Higher Education Contribution Scheme was a uniform charge, but in 1997 three different tariffs were introduced. Since then, students in expensive programs and students in programs with high rates of return, such as law, have to pay the highest charge. Students in programs that are less expensive to provide and programs with low job expectancies pay the lowest rate. A discount is made to the charge if students pay the fee up-front, though repayment (through the income tax system) can be deferred until the student's income reaches a specified threshold level of earnings (income contingency). No payment is required if income does not reach this level. The income threshold was increased from $24 365 in 2002–2003 to $25 348 in 2003–2004, and under Commonwealth Government reforms, will increase to $35 000 in 2004–2005.

From 1998 onwards, institutions were allowed to set their own tuition levels (up-front) for up to 25% of their students. In case of deferred repayment of the Higher Education Contribution Scheme, the debt is annually adjusted for inflation. Students who choose to pay their contribution up-front in full receive a 25% discount. Students who make a partial up-front payment of $500 or more are also eligible to receive a 25% discount on the amount paid.

Repayments are made through the tax system. After the graduate's income passes a certain threshold, a percentage of the gross income is directly taken as a repayment. This means that graduates with high incomes repay their debt rapidly, whereas graduates with low incomes repay their debt more slowly. Most graduates repay their Higher Education Contribution Scheme debt in full within a period of ten years after graduation (Vossensteyn 2003). As at September 2003, 1.1 million people have Higher Education Contribution Scheme loans totalling $9 billion, compared to 708 000 loans totalling $4 billion in 1995, and the average Higher Education Contribution Scheme debt per person is about $8500 (Nelson 2003).

The second income-contingent loan scheme is the Postgraduate Education Loan Scheme (PELS), which is an interest-free loan facility for eligible students who are enrolled in fee-paying, post-graduate non-research courses. The Postgraduate Education Loan Scheme enables eligible students to obtain a loan from the Commonwealth Government to pay all or part of their tuition fees. It is available for both commencing and continuing students. The Commonwealth pays the amount of the loan directly to the student's institution. Students repay their loan through the Australian taxation system once their income reaches the minimum threshold for compulsory repayment, which is the same as the threshold for the Higher Education Contribution Scheme: 'PELS and HECS debts are treated as a single debt, which is known as your "HECS debt". Therefore, your PELS debt will be added to your existing HECS debt. If you do not have an existing HECS debt, your PELS debt will still be known as a HECS debt' (Department of Education, Science and Training 2003b).

The Commonwealth Government recently announced a higher education reform package of income contingent loans under the new Higher Education Loans Programme (HELP). From 2005, the HECS–HELP scheme will provide two forms of assistance to eligible people who are enrolled as Commonwealth supported students. A HECS–HELP loan is one from the Australian Government for all or part of the student contribution amount and is repaid once income is above the threshold of $35 000 (in 2004–2005). A HECS–HELP discount of 20% applies when students pay upfront all or at least $500 of their contribution amount for units undertaken (Department of Education,

Science and Training 2004). Also from 1 January 2005, all Australian citizens, New Zealand citizens and holders of permanent visas will receive a Student Learning Entitlement (SEL) of seven years of equivalent full-time education (extended on a pro-rata basis if studying part-time). Extension beyond seven years is available for students undertaking an initial undergraduate degree or pathway in which the normal enrolment period is longer than six years (for example, medicine) or an honours course, a graduate entry bachelor degree or a postgraduate course (Department of Education, Science and Training 2004).

Two other schemes announced are to commence in 2005 (Department of Education, Science and Training 2003a):

- Fee-paying help (FEE–HELP): Students paying full fees in public and eligible private higher education institutions can access an income contingent loan up to an amount for the full tuition charged for the course, to a limit of $50 000. Debts will be indexed to the consumer price index and there will be a loan fee of 20% for undergraduate courses of study. This scheme will absorb the Postgraduate Education Loan Scheme, Open Learning Deferred Payment Scheme (OLDPS) and Bridging for Overseas-Trained Professionals Loan Scheme (BOTPLS).
- Overseas study help (OS–HELP): Eligible full-time undergraduate students in Commonwealth-supported places at public higher education institutions can apply for loans of up to $5000 per semester to study abroad for one or two semesters of their degree program. Students cannot apply for a loan until they have successfully completed the first year of their course or they are in the final year of their course. A total of 5000 loans will be available in 2005, increasing to 20 000 loans per year by 2008, with loans distributed to universities for allocation to students. Debts accrued will be treated the same as FEE–HELP.

The reforms allow universities to set student contribution rates within levels determined by the Commonwealth Government. Except for the national priorities of nursing and teaching, the maximum student contributions is set at a maximum of 25% above the expected Higher Education Contribution Scheme contribution rates for 2005. The ranges are as follows:

- Band 1: $0–$4800 (arts, humanities, social studies, behavioural sciences, foreign languages and performing arts)
- Band 2: $0–$6837 (accounting, commerce, administration, economics, mathematics, statistics, computing, built environment, health, engineering, science, surveying, agriculture)
- Band 3: $0–$8004 (law, medicine, dentistry, veterinary science)
- National priorities: $0–$3840 (nursing and teaching)

Impact of the Higher Education Contribution Scheme

Table 6 presents an outline of the changes in sources of revenue following the introduction of the Higher Education Contribution Scheme in Australia. It shows that income from students under the scheme grew from 12% of total income for higher education in Australia in 1995 to 19.0% in 1999. The growth in contributions from the Higher Education Contribution Scheme to the total funding of higher education has enabled Commonwealth Government funding (excluding the Higher Education Contribution Scheme) to decline from 57.2% to 43.8%. The Higher Education Contribution Scheme-derived funding is expected to continue to grow. For 2003–2004, payments were estimated to reach about 22% of the funding available to higher education institutions.

One of the main effects of the Higher Education Contribution Scheme has been to shift a large proportion of the cost of higher education from the Commonwealth Government to students. In doing so, it has enabled the continuing expansion of the sector during a period of budgetary constraint. As a result of increased individual contributions, higher education is now less reliant on government contributions.

Evaluations of the impact of the Higher Education Contribution Scheme, particularly those undertaken in the initial years following its introduction, have not identified any substantial impact

on levels of enrolments. For example, a study in Victoria and Western Australia of the impact of the scheme on participation reported that the impact was small at both the entry and undergraduate levels (Robertson, Sloan & Bardsley 1990). The study found that only 2% of potential undergraduate students cited the Higher Education Contribution Scheme as a reason for not enrolling, while about 5% of undergraduates reported not re-enrolling because of the scheme.

Table 6: University revenue, by main source: 1995–2001

Source of revenue	1995	1996	1997	1998	1999	2000	2001
				Revenue ('000 000)			
Commonwealth Govt. grants	4 308	4 566	4 420	4 295	3 914	3 913	4 105
HECS	902	933	1 210	1 451	1 662	1 676	1 771
Other Commonwealth grants	0	0	0	0	277	306	365
State government	104	110	103	115	112	144	178
Fees and charges	880	1 078	1 227	1 356	1 547	1 697	2 021
Investment income	305	298	326	290	276	321	303
Other sources	1 036	1 066	932	950	947	1 271	1 459
Total	**7 536**	**8 052**	**8 218**	**8 456**	**8 734**	**9 328**	**10 202**
				Percentage of total			
Commonwealth Govt. grants	57.2	56.7	53.8	50.8	44.8	41.9	40.2
HECS	12.0	11.6	14.7	17.2	19.0	18.0	17.4
Other Commonwealth grants	0.0	0.0	0.0	0.0	3.2	3.3	3.6
State government	1.4	1.4	1.2	1.4	1.3	1.5	1.7
Fees and charges	11.7	13.4	14.9	16.0	17.7	18.2	19.8
Investment income	4.0	3.7	4.0	3.4	3.2	3.4	3.0
Other sources	13.8	13.2	11.3	11.2	10.8	13.6	14.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: HECS = Higher Education Contribution Scheme

Source: Department of Education, Science and Training, Higher education finance statistics, various years.

Other work has focused on the potential impact the Higher Education Contribution Scheme would have on the rates of return to university qualifications and the flow-on effect to demand. Chapman (1992) has argued that the effect of the Higher Education Contribution Scheme on the private internal rate of return to education was such that it had little effect on demand for higher education by full-time students. More recently he has argued that the scheme has had minimal effects on the earnings returns from higher education qualifications (Chapman & Ryan 2002). Borland (2001) found that the lifetime gain of Australian-born males who completed a three-year university degree is significant (see table 7).

Table 7: Private monetary costs and benefits of a three-year university degree, Australian-born male wage and salary workers

	No employment adjustment	Employment adjustment
At zero rate of discount, at age 18–20	*$'000*	*$'000*
Foregone earnings	31	26
Cost of fees and direct costs	21	21
Total cost	53	47
Age 21–65:		
Increase in earnings	434	451
Total lifetime gain	381	404
At 4% rate of discount, at age 18–20		
Foregone earnings	29	24
Cost of fees and direct costs	20	20
Total cost	48	43
Age 21–65:		
Increase in earnings	179	189
Total lifetime gain	**130**	**146**

Source: Borland (2001), table 2

This view has been supported by Andrews (1999), who has claimed that while the Higher Education Contribution Scheme does raise the cost of higher education to the individual, it has not worked as a notable deterrent to enrolment. The study by Andrews focused on the impact of the scheme on the participation of students from disadvantaged backgrounds. He measured changes in proportions of first year university students from low socioeconomic status (SES) backgrounds. He concluded that the scheme charges did not affect the higher education participation of students from disadvantaged backgrounds. This view echoed the findings of an earlier survey commissioned by the Higher Education Council (1992), which found that among school leavers from disadvantaged backgrounds the Higher Education Contribution Scheme was found to be only a relatively minor influence on the decisions of those who did not go to university.

While the Higher Education Contribution Scheme may not be a notable deterrent to enrolment for disadvantaged students, a recent study has reported that participation in higher education by people from low socioeconomic status backgrounds remains low and proportionately has become gradually lower (Department of Education, Training and Youth Affairs 1999). Therefore, while Andrews has reported that the scheme has not affected the participation of students from lower socioeconomic status backgrounds, proportionately fewer students from these backgrounds have enrolled in university over the last decade.

Income-contingent loans and the funding of VET

Student loan schemes have been applied in some countries to vocational education and training. For example, in Canada, student loans have been applied to vocational courses that involve a minimum of 12 weeks training. The loans help cover tuition fees as well as living costs. A similar approach is taken in The Netherlands where students undertaking vocational courses are eligible for grants and loans. Income-contingent loans schemes, however, have not yet been applied to vocational education and training.

Proposals for the application of income-contingent loans to vocational education and training have been made. A New Zealand white paper suggested such a move, arguing for all tertiary education to be subject to partial cost-recovery through income-contingent loans (New Zealand Ministry of Education 1998). In Australia, discussion of the issue of loans to cover fees in vocational education and training was fuelled by the release of the higher education review paper, *Varieties of learning: the*

interface between higher education and vocational education and training (Department of Education, Science and Training 2002). In that paper, an argument for the Higher Education Contribution Scheme-style fees in vocational education and training was made to cover the growing number of students who move from technical and further education (TAFE) to university and make use of credit transfer concessions.

Others have extended the argument to cover all study in vocational education and training. Chapman, Doughney and Watson (2000) have argued that the application to vocational education and training of a scheme similar to the Higher Education Contribution Scheme would provide a major mechanism for increasing individual contributions in the funding of vocational education and training and, by increasing the funds available, expanding the number of available places. They claim that in higher education the scheme has raised considerable revenue for use in financing expansion in Australian higher education. This they argue could apply to vocational education and training if the scheme was adopted. They also point to the potential it would have to increase participation by removing the need for up-front fees currently charged for many courses in vocational education and training.

How would an income-contingent loan scheme for VET work?

The argument that a Higher Education Contribution Scheme-style system would help increase the funds available for vocational education and training by increasing individual contributions is based on the notion that students would pay for a greater part of the costs of education and training than they currently do. Given the current funding arrangements in vocational education and training, to increase funds through an income-contingent loan scheme would mean:

- ✧ increasing the level of fees
- ✧ changing or removing current arrangements for exemptions and concessions
- ✧ making payment income-contingent.

At present, on average, students pay for about 5% of the costs of their vocational education and training through the payment of fees. The level of fees varies by state. In Victoria, students pay a maximum of $500 in a calendar year, with lower caps for apprentices/trainees ($290), Victorian Certificate of Education (VCE) students ($420) and others. In Tasmania, the maximum is $900. In Western Australia, there is a cap of $420 per semester. In New South Wales there is a flat rate that depends on both the level and length of the course and is $690 for Associate Diploma (now called Diploma under the Australian Qualifications Framework) and above courses, and $250 for other courses that are longer than a semester.

Approximately 20–30% of VET students are exempt from fees (Borthwick 1999). In general, exemptions or concessions are provided to those who receive Commonwealth allowances and benefits, including Youth Allowance and other student allowances, and people with Health Care, Pensioner Concession and Veteran Affairs Pensioner Concession cards. They also apply to certain targeted equity groups, such as Aboriginal and Torres Strait Islander students. Fee concessions and/or exemptions, in some cases, apply to tuition fees only, and in others they also apply to other fees and charges such as student services fees.

Using data from 1997, table 8 shows the levels of possible revenue that would have been obtained if an income-contingent loan had been applied to vocational education and training based on two cost-recovery rates: 25% and 33%. The first panel presents the revenue maintaining current patterns of exemptions and concessions. The second panel presents the estimates including all students and providing for no exemptions or concessions.

Table 8: Estimated revenue from the application of an income-contingent loan scheme to vocational education and training based on 1997 data ($millions)

	Fees received[a]	Rate of cost-recovery from the income-contingent loan[b]	
	5%	25%	33%
		With exemptions	
Full-time students	52	140	185
Part-time students	114	315	416
All students	166	455	600
		Without exemptions	
Full-time students		172	227
Part-time students		387	511
All students		559	738

Note: Amounts are based on 1997 financial data and student numbers.

a. In 1997 student fees and charges represented 5% of the income for VET from government funding and student fees and charges. The fees for full-time students were derived by taking the number of full-time students, reducing this number by 20% for students who were exempted or obtained concessions, and multiplying the result by $400 (estimated average cost for full-time students [Borthwick 1999]). The part-time student rate was derived in the same way except that the estimated average cost for part-time students was $100.

b. The income-contingent loan revenue figures were derived by estimating the amounts derived from cost-recovery (25 or 33%) based on 1997 income from government sources, adjusted for the gap in annual revenue due to deferred payments. The adjustment was set at 55%, in line with the revenue in 2000 derived from HECS for higher education in Australia compared against the HECS liabilities for that year (Department of Education, Science and Training 2001). The VET figures assume a year well after the introduction of the income-contingent loan, not at the commencement of the scheme.

Table 8 shows that, compared to the revenue for fees obtained in 1997, the revenue from a 33% income-contingent loan scheme applied only to students who paid fees would have increased revenue for the VET sector by $434 million—that is, $600 million less $166 million. If the scheme were applied to all students, revenue would have increased by $572 million—that is, $738 million less $166 million. At a 25% cost-recovery level, revenue would have increased by about $289 million (that is, $455 million less $166 million) based only on those students who paid fees and by $393 million (that is, $559 million less $166 million) if exempted and concession students were included.

There are several assumptions in the figures provided. The revenue is based on the assumption that full-time students accounted for 10% of all VET participants and part-time students for the remaining 90%, as reported in national data for that year. The exemption and concession levels are set at 20% to estimate the figures in the first panel. The income-contingent loan revenue figures were derived by estimating the amounts that would have been derived from cost-recovery equal to 25% and 33% of government funding for 1997. These were then adjusted for the gap in annual revenue that would be a product of deferred payments. The adjustment was set at 55%, in line with the revenue in 2000 derived from the Higher Education Contribution Scheme for higher education in Australia compared against the contribution scheme liabilities for that year (Department of Education, Science and Training 2001). The VET figures assume a year well after the introduction of the income-contingent loan, not at the commencement of the scheme.

It is important to remember that the estimates are based on Higher Education Contribution Scheme data for higher education. The rate of up-front fees paid by students in vocational education and training is likely to be lower than that in higher education because many of the participants in vocational education and training are from families with lower incomes. The rate of non-repayment is also likely to be much greater because income levels of graduates are lower. The effects of these factors would be to reduce the revenue levels derived using an income-contingent loan scheme similar to the Higher Education Contribution Scheme.

The levels of individual contributions as proportions of total government and student funding associated with the introduction of an income-contingent loan scheme for vocational education and training are presented in table 9. This table shows that, all else equal, an income contingent loan

scheme with a 33% cost-recovery target with no student exemptions or concessions could potentially increase student revenue from 5% to 19% of public and student fee totals. At a 25% cost-recovery level, revenue from individual contributions would increase to 15% of total public and student fee totals, all else equal.

Table 9: Levels of revenue in 1997 based on an income-contingent loan with 25% and 33% cost recovery

	Actual in 1997	With income-contingent loan and exemptions	With income-contingent loan and no exemptions
		25% rate of cost-recovery	
Commonwealth	947	947	947
State	2126	2126	2126
Student fees and charges	166	455	559
Total	3239	3528	3632
Individual contributions as % of total	*5*	*13*	*15*
		33% rate of cost-recovery	
Commonwealth	947	947	947
State	2126	2126	2126
Student fees and charges	166	600	738
Total	3239	3673	3811
Individual contributions as % of total	*5*	*16*	*19*

Note: The figures are based on national data from 1997. It should be noted that the estimates are based on an income-contingent scheme in operation for some years. During the establishment years of the scheme, income would be lower than that reported for 1997, if the loan scheme was introduced and existing up-front fees and charges were removed altogether and most students opted for deferred payment.

Issues affecting an income-contingent loan scheme in VET

Extending an income-contingent loan scheme to vocational education and training raises a number of issues which may have an impact on the demand for study in vocational education and training and the levels of revenue raised through such a scheme.

If the same income threshold is used as at present under the Higher Education Contribution Scheme arrangements for higher education, then it is likely that the revenue raised will be lower than that achieved in higher education for several reasons. Firstly, it is likely that repayments will take longer because the salary levels of VET graduates are lower than those for higher education graduates. Secondly, there is likely to be a higher number of graduates who do not repay their loans because they never reach the income threshold level. Therefore the scheme would simply remove up-front fees for low-income students. This is likely because of the much higher numbers of participants in vocational education and training who are disadvantaged or from lower income groups, including those who receive Health Care, Pensioner Concession and Veteran Affairs Pensioner Concession cards, as well as those from equity groups, such as Aboriginal and Torres Strait Islander students. On the other hand, a low repayment threshold would mean that low income VET students would have to pay the Higher Education Contribution Scheme at the time they are studying, which could be a major disincentive to participation.

Burke (2000) and Long and Burke (2002) have argued that the case for the introduction of the Higher Education Contribution Scheme to universities made by the Wran committee (1988) was based largely on the higher incomes later received by university graduates. The studies of the income of TAFE graduates suggest, on average, a more modest addition to earnings as a result of their VET qualifications. A recent study by Ryan (2002) based on the 1997 Survey of Education and Training data found that rates of return vary significantly by qualification and depend critically on the work/study combination used by individuals to undertake their courses.

Table 10 presents earnings linked to qualifications for 24-year-olds. The estimates were derived from longitudinal survey data using multivariate regression analyses conducted to measure the

relative effects of education and training qualifications on wages outcomes at age 24.[5] In the regression model, predicted earnings were estimated for the different education and training activities, controlling for the number of hours worked and for differences in backgrounds. The analyses provide a way of measuring the independent effect of each education and training activity on earnings—for example, the advantage, or disadvantage, of participating in TAFE.

Table 10: Deviations from the estimated average weekly earnings for full-time workers at age 24, by participation in post-school education and training ($)

	Males		Females	
	Mid 1980s	Mid 1990s	Mid 1980s	Mid 1990s
	($)	*($)*	*($)*	*($)*
Estimated average	379.1	555.0	297.4	460.9
TAFE	4.9	-13.6	14.1	-8.9
Diploma		63.7		10.9
Certificate		-32.3		-12.8
Higher education	46.1	49.3	59.7	70.7
Apprenticeship	26.1	68.4	-36.4	34.8
No further education or training				
Year 10	-24.5	-2.1	-16.1	-13.3
Year 12	4.4	8.3	0.2	25.6
Background*				
Disability			-11.9	-42.0
Rural location	-7.6	-38.6	-2.6	-16.6

Note: *Only significant background predictors are reported.
Source: Lamb, Long and Malley (1998)

For women, higher education provides the largest returns. It provided a predicted earnings advantage of $71 a week in the mid 1990s, an increase of $11 from the mid 1980s. There is also a solid earnings advantage for males holding university qualifications ($49 a week). Differences related to TAFE qualifications and apprenticeships vary, but in some instances reveal large gains. Completing an apprenticeship, for example, added $68 a week, other things equal, to the income of males working full-time and $35 a week for females. Qualifications related to participation in other TAFE courses varied depending on the level of study. A diploma qualification increased the average weekly earnings of males by $64, whereas for those in certificate courses there was a lowering of the average weekly wage by $32. Clearly, TAFE diplomas provide much higher returns than certificates. For females, TAFE diplomas provided modest gains, while certificate courses in TAFE were associated with lower than average wages, other things equal.

These results suggest that in terms of returns to study for young people some forms of education and training, such as TAFE certificate courses, do not offer any real advantage over a high school education without any further training. Other forms, such as apprenticeships and TAFE diplomas, have more consistent and substantial returns, particularly compared to the earnings of young people who leave school without entering any vocational training or higher education courses.

The returns to VET qualifications are far less consistent than those for higher education. Borland's analysis of higher education returns suggests a 14.5% return to a three-year bachelor degree (Borland 2001). The average return to VET qualifications is about five points below the higher education rate

[5] The analyses were also conducted using a procedure to correct for selection bias. The procedure used, referred to as the Heckman correction, involved a two-stage procedure in which probit estimates were derived initially to estimate bias associated with the selection of sample members who achieved particular levels of education or educational qualifications and those who did not. At the second stage, the regression was conducted including an error term derived from the probit analysis to correct for selection bias. The estimates derived using this procedure were not significantly different from those reported in table 18.

according to the figures provided by Ryan (2002). The figures generated by Lamb, Long and Malley (1998) are consistent with this. It suggests that the same assumptions used to support and justify the introduction of the Higher Education Contribution Scheme in higher education cannot be applied with the same certainty for vocational education and training. If earnings returns are not as strong for VET qualifications, then there is potential for students to form a negative view of investment in vocational education and training (with investment represented by the debt associated with income-contingent loan fees). In short, individuals may judge that the returns do not warrant the investment. In this situation, an income-contingent loan scheme applied to vocational education and training may work to discourage rather than encourage participation and reduce the potential levels of individual contributions. This is likely to vary according to the type of qualification since returns also vary by qualification type. This issue could be addressed through the use of varying tariff levels similar to that applied to higher education.

Equity

As well as rates of return, there is also the issue of equity. Students undertaking vocational education and training are more often from lower socioeconomic status backgrounds than those in higher education. The introduction of income-contingent loans in vocational education and training may work as a disincentive to the many students from poorer backgrounds. Table 11 compares the backgrounds of students participating in higher education with those participating in apprenticeships and traineeships and other VET courses. The figures are based on participation of students within two years of leaving school. They were derived from the 1995 cohort of the Longitudinal Surveys of Australian Youth (LSAY).

There are major social differences in the backgrounds of university and VET entrants. Teenagers entering university are far more often from higher socioeconomic status backgrounds. About 43% of university entrants were from high socioeconomic status backgrounds. Only 16% of university entrants were from low socioeconomic status backgrounds. Among VET entrants, about 22% were from high status origins, while about 29% were from low socioeconomic status origins. Vocational education and training entrants are far more evenly attracted from across the social spectrum than are university entrants. Apprenticeships and traineeships draw far more heavily on young people from low status family backgrounds. While university is more important to higher socioeconomic status students, vocational education and training plays a more important role for young people from lower status origins in the transition from school to further study.

Vocational education and training, more than university, has always played an important role for young people who attended government schools, for those living in rural areas and for those with lower levels of school attainment and achievement. The large numbers of exemptions and concessions from fees for participants from poorer backgrounds, those who are unemployed, those who receive various forms of government income support, and those from equity groups such as indigenous students indicate that vocational education and training is important to many disadvantaged groups in the community. The introduction of income-contingent loans in vocational education and training may work as a disincentive to the many students from poorer backgrounds. For this reason, Long and Burke (2002) suggest that the extension of income-contingent loans to all VET study would potentially lower rather than increase demand. Considerations will need to be given to how exemptions and concessions would be treated in a Higher Education Contribution Scheme framework for vocational education and training.

Table 11: Backgrounds of students entering education and training within two years of leaving school

	Type of study			
	University	VET	Apprentice/ traineeship	Percentage in each category
Overall rate of participation	30.9	15.2	17.7	
SES (quartiles)				
Lowest	16.0	28.7	32.3	27.2
Upper middle	18.3	27.1	28.2	24.3
Lower middle	22.6	22.5	24.5	22.6
Highest	43.1	21.7	15.0	26.0
Total	**100.0**	**100.0**	**100.0**	**100.0**
Achievement (quartiles)				
Lowest	7.2	32.1	35.2	25.4
Lower middle	17.4	30.7	31.3	25.0
Upper middle	30.2	23.0	20.1	24.3
Highest	45.3	14.3	13.4	25.3
Total	**100.0**	**100.0**	**100.0**	**100.0**
Sex				
Male	41.0	44.3	70.6	49.4
Female	59.0	55.7	29.4	50.6
Total	**100.0**	**100.0**	**100.0**	**100.0**
School type				
Government	54.8	70.2	77.8	68.6
Catholic	26.1	19.7	15.3	19.8
Independent	19.1	10.1	6.9	11.7
Total	**100.0**	**100.0**	**100.0**	**100.0**
Language background				
English speaking	72.1	72.4	87.1	78.4
Other than English	27.9	27.6	12.9	21.6
Total	**100.0**	**100.0**	**100.0**	**100.0**
Region				
Urban	63.9	57.7	44.4	55.2
Regional	20.8	20.7	28.6	24.1
Rural or remote	15.3	21.5	26.9	20.8
Total	**100.0**	**100.0**	**100.0**	**100.0**
Year-level left school				
End of Year 10	0.0	4.5	25.6	9.5
During Year 11	0.0	2.8	12.0	5.6
End of Year 11	0.0	3.6	14.5	5.5
During Year 12	0.0	3.4	7.3	4.4
End of Year 12	100.0	85.7	40.6	75.0
Total	**100.0**	**100.0**	**100.0**	**100.0**

Note: SES = socioeconomic status

Mapping of income-contingent schemes against conceptual framework

What is investment?	Individuals pay a percentage of the operating costs, varying according to the course of study and repay fees charged once they have achieved a threshold of income.
What are the options for individual investment?	Individuals can pay up-front and receive a discount or delay paying fees until their income reaches a specified threshold level of earnings.
Why is individual investment desired?	To increase the contributions made by individuals as a proportion of total revenue.
What are the incentives for investment?	Individuals do not have to pay up-front fees, thereby improving access to education and training, particularly to courses with sizeable fees. Graduates usually experience a significant rate of return on their investment, especially those who worked full-time and studied part-time.
What are the disincentives?	May have an impact on participation by people from low socioeconomic status backgrounds; students may be deterred if the costs associated with higher fees outweigh the returns; and individuals have to repay fees when their income reaches the threshold.
What are the relevant characteristics of the VET sector?	There are multiple types of providers, and applying an income-contingent loan scheme differentially according to type and level of training may present issues of equity in resourcing. State responsibility for vocational education and training in a federalist structure may present some issues with fee and tax collection and payment.
What are the characteristics of the clients?	Disadvantaged groups are more likely to use vocational education and training—low income, isolated, people with poor educational records, indigenous people, welfare recipients. Scheme may work to discourage participation from these groups.
What contextual factors should be considered?	Cost of courses, threshold amount, demand for loans, and income from students as a proportion of total income for higher education.

Vouchers

An education or training voucher is defined as an 'earmarked payment made to a training consumer for use at the education or training institution of their choice' (West et al. 2000). In most cases, the government or employer is obligated to pay a pre-determined amount to the training provider selected by the person. It is only when vouchers represent part of the cost of training that individuals will contribute in order to pay the remainder of the training not covered by the voucher amount.

West et al. (2000) identified two types of vouchers:

- A pure voucher is a coupon with a specified financial value.
- A quasi-voucher may be a 'smart card' or similar device that represents an 'entitlement' to education and training (such as the number of training weeks/hours) and may need to be validated by the purchaser (government or employer) of the training course before the individual can use it.

Voucher schemes vary with respect to their criteria for targeting, the types of cost they are permitted to cover, the sums involved and administrative arrangements (Wurzburg 2002). Vouchers have been used in several countries to raise individuals' demand for learning activity by reducing the effective cost of training by financing direct and, in some cases, indirect costs of training (such as cost of living). However, Greco (2001) concludes that 'the large chasm between what is reported as being the benefits of vouchers, at a theoretical level, and what is reality (in the few trials recorded) should be a concern for public policy makers considering vouchers' (p.15).

Table 12 summarises the key parameters within an operational framework for vouchers; prerequisites to ensure that voucher schemes are equitable, efficient and effective; and the potential problems of voucher schemes, as identified by West et al. (2000) in a world survey of education vouchers for the World Bank in 1996. West et al. (2000) identified four objectives of vouchers:

- Allow individuals to make informed consumer choices to meet their training needs in terms of the most appropriate training provider and course, which may lead to increased mobility of learners.
- Empower individuals to choose their own training paths that will stimulate interest, participation, enthusiasm and dedication.
- Increase competition leading to providers reducing costs, increasing quality and tailoring courses to the needs and requirements of the learners.
- Improve access to private education and training providers if public provision is complemented by other providers entering the market.

Matveev (2001) found that the objectives of partially funded schemes are quite different to those mentioned above for a fully funded scheme. He argues that the partially funded schemes aim to stimulate demand for education, increase investment in education, overcome market failures, and make the market fairer. Verry (2000) argues that although training vouchers 'generate greater efficiency by distributing public funds to individuals rather than institutions (which would then face competition and become more responsive to consumer demand), they do not generate additional resources' (p.73). Supporting the need for greater investment by individuals and enterprises in training, West et al. (2000) argue that training vouchers that represent part-training costs may provide individuals with an incentive to contribute: 'For publicly part-funded training,

the main objectives include creating a fiscal stimulus to increase the demand for training generally, for certain types of training and/or target groups and to encourage co-investment' (p.22). Kath (1998) also argues that the level of demand could be maintained if individuals were prepared to pay part of the costs; however, this would not be suitable for disadvantaged people.

Table 12: Key parameters, prerequisites and potential disadvantages of voucher schemes

Parameters within the operational framework for vouchers	
Target groups and eligibility	Young people in post-compulsory education and training; employees undertaking continuing vocational training (may be in specific areas); employees working in certain enterprises (e.g. small and medium-sized in certain sectors); adults currently out of the labour market and wish to re-enter (e.g. women); employed and/or unemployed adults who wish to retrain; adults who wish to increase their skills levels for work-related or personal reasons; and large groups of individuals (universal or means-tested).
Currency of the voucher	Specified monetary value, number of training hours/week, certain level of education or training, or a specified qualification.
Supplementable or of a fixed value	A fixed value representing certain training costs or entitlement when there is a government guarantee to fully-funded training. For part funding, the voucher represents a monetary value that is supplemented by private household income or an employer.
Higher value for specific target groups	Higher face value from disadvantaged groups (e.g. with physical or learning disabilities) providing an incentive to provider to accept such individuals.
Inclusion of other non-training costs	Voucher used not only for training provision but also for other services (e.g. vocational guidance) and transport and living costs, allowing for greater consumer choice and mobility.
Format of the voucher	A coupon, quasi-voucher (e.g. smart card) or an electronic transfer of funds from the training purchaser (government or enterprise) to the training provider.
Payment of funds	Training providers may be paid once the individual has enrolled, has attended a specified duration, or completed the training, in the form of instalments or a lump sum.
Portability of the voucher	The voucher can be used in only one region or portable to other regions in the same country.
Prerequisites to ensure voucher schemes are equitable, efficient and effective	
Information, advice and guidance	Availability of information to allow individuals to make informed choices on the available alternatives. Information (provided by a special agency or a decentralised information market with competing bodies) needs to include programs available, certification, qualifications and expertise of personnel, costs and education/training outputs. In addition, advice and guidance may be needed to support individuals in choosing training and a provider.
Regulation	Some form of regulation or quality assurance mechanism to maintain standards.
Choice of providers and entry of new providers	All suppliers could be considered for accreditation which would open the door for new suppliers and allow for on-the-job training programs.
Administration of voucher schemes	Funding body needs administrative systems to track the individuals and their training choices, monitor the quality of the training, and for the payment mechanism of the voucher.
Potential problems associated with the voucher scheme	
Deadweight/windfall effect	Individuals or employers may use the purchasing power of the voucher to pay for a training program that they would have undertaken/paid for anyway.
Administrative costs	Tracking the use of the voucher can be complex (from the issuer, to the consumer, to the education or training provider and then to the body administering payments to providers).
Fraud	As a single voucher will go through many hands, a 'black market' in vouchers could develop.
Impact on equality of opportunity	Benefits of a voucher scheme may accrue to those on middle and upper incomes, especially if individuals can supplement the vouchers with their own funds. Targeting of vouchers to less qualified individuals may be more equitable. Training providers may 'cream' or seek out individuals who cost less to educate/train, resulting in certain groups being disadvantaged.
Lack of choice	In areas of low population density, or if the scheme is set up to include a limited range of training providers or courses, choice will be limited.
Funding instability for training providers	Funding providers on their ability to attract individuals and their vouchers rather than on supply-side criteria could create an uncertain budgetary situation where they may not be able to compete and are forced to improve or close. Providers offering specific kinds of training with an uncertain level of demand may be forced to alter their provision.

Source: West et al. (2000), pp.22–28.

Voucher schemes

A number of countries have implemented voucher schemes, as presented in the following discussion of voucher schemes in the United Kingdom, Austria, Belgium, Australia and the United States. Despite the existence of these and other schemes, Matveev (2001) argues that the impact of vouchers remains unclear 'as most voucher programs are limited in scope and are relatively new; therefore they cannot yield a reliable data to provide for objective evaluation' (p.3). Matveev (2001) did state that generally vouchers and quasi-vouchers have a mixed record of success and failure.

United Kingdom

In 1999, within the framework of Youth Training, the United Kingdom government supported 11 pilot schemes for Training Credits (later called Youth Credits). A youth credit was a voucher representing an entitlement to training to Level 2 or Level 3 national vocational qualifications (NVQs)/Scottish vocational qualifications (SVQs), the cost of which was met by Training and Enterprise Councils/Local Enterprise Councils. Different training and enterprise councils adopted different schemes and different terminology. Some credits varied according to the cost of training, while others had a fixed money value, ranging in value from UK£750 to almost UK£5000 per young person on vocational education and training. To enable young people to make the most effective use of their credits they received special guidance from their local Careers Service.

Training credits in the United Kingdom represented purchasing power by giving the young person more choice, more responsibility, and more control by channelling public funding through the young person rather than through a training provider to achieve the following aims (CEDEFOP 2000):

- ✧ to increase a young person's motivation to training by giving them choice and control, and showing them the scale of investment available to support their training
- ✧ to make training provision more market-oriented because providers are paid according to their ability to attract trainees with credits
- ✧ to increase the number of employers, particularly smaller employers, offering structured training to young people.

After the pilots, youth credits were offered from training and enterprise councils, and young people were informed about their existence while at school. They could be used to provide access to Modern Apprenticeships or other work-based training leading to national vocational qualifications. The financial value of credits varied according to the type of training and the individual's needs. A young person presents the youth credit to an employer or training provider in exchange for training. Most youth credits were plastic cards, but some were like cheque books or vouchers (CEDEFOP 2000).

The scheme has since been discontinued. While philosophical objections may have been one reason for this it appears that the primary reason was inefficiency. The training credits operated at average cost rather than marginal cost and had the affect of increasing average cost.

Austria

The training voucher scheme in Styria, Austria was introduced in the mid-1990s. It offers three kinds of training vouchers that are provided by government and handed over to selected recognised providers in the region (International Labour Organisation 2003):

- ✧ training vouchers for business start-ups that prepare individuals to apply for a commercial licence (50% of course costs up to a maximum of 436€) and for further training in business management, marketing and controlling (50% of course costs up to a maximum of 290€)
- ✧ training vouchers for individuals who have completed an apprenticeship, to promote vocational further training over a period of five years after the apprenticeship (50% of course costs up to a maximum of 290€ or 363€ for apprentices who have achieved a mark of 'excellent' in the final exam)

- training vouchers for special qualifications that remain valid for up to 10 years after completion of an apprenticeship and can be used for training in the fields of computers, CAD/CAM and marketing (50% of course costs up to a maximum of 726€).

In all three cases, the courses must be at a minimum of 80 hours.

Belgium

In March 2003, the Flemish regional government in Belgium introduced training and coaching vouchers for employees as part of an employment agreement for 2003–04. Employees will purchase the vouchers by paying a contribution of 50% and the maximum voucher value is 250€. Employees can use the vouchers to pay for course enrolment or materials, and the course must involve general training that increases the employability of the employee.

Australia

In Australia, individuals who participate in and complete Work for the Dole projects or Community Work are entitled to a maximum training credit of $800 in a six-month period. They can use the training credit to undertake competency based and accredited courses, and to obtain licences to drive forklifts, cars, light trucks and heavy vehicles. Individuals must complete the course within six months from the date they finish the Work for the Dole or community activities. If the cost of the course exceeds the training credit, the individual must pay the difference.

Further research is to be undertaken to determine how many people are using credits, and in particular, if they are participating in courses that cost more than the training credit and are paying the difference themselves.

United States

Levin (2002) identified two types of voucher or entitlement programs in post-compulsory education in the United States:

- Pell Grants are provided from the federal government to students from low-income families. However, these grants are modest relative to the full costs of post-secondary education, limited in duration and application, and have not had a major effect on equity in redistributing participation in higher education.
- The GI Bill of Veterans' Education Benefits Program established in 1944 to 'assist military veterans to adjust to a changing economy' (p.23) provides a monetary allowance for paying college tuition and other educational costs at approved institutions. In 2002, veterans received from US$672 to US$800 per month for full-time studies, which will rise to US$985 a month in 2003 for a maximum of almost US$36 000 for four academic years. Eligibility of institutions is based upon educational, legal, financial, and information-reporting criteria. Almost 18 million veterans have participated in the GI Bill, the program has accounted for about half of the federal support for post-secondary education and training, 75% have chosen colleges and universities, and 10% have chosen vocational and technical institutes.

Levin (2002) stated the present system of financing post-compulsory education and training in the United States should be replaced with a unified financial approach based on post-compulsory entitlements (PCE). The system would involve every individual having a basic entitlement to grants and loans for further education and training approved by government, which would provide 'much greater freedom of choice, higher productive efficiency, and more equitable participation and outcomes than the existing methods of organising and providing post-compulsory education' (p.9).

He proposed a system with the following features:

- Public support for post-secondary education and training would be provided to students in the form of a promissory note or entitlement.

- ✧ The post-compulsory entitlements would obligate the government to provide a specified amount of grants and loans that could be used for participating in education and training programs that met eligibility requirements.
- ✧ The post-compulsory entitlements could be used over the lifetime of the student, and the unused portion would draw interest.
- ✧ The amount of the entitlement and its composition between grants and loans would be determined by the family resources of the student and other pertinent factors such as the social benefits and priorities of training (as opposed to the private benefits that should be borne by the individual).
- ✧ Any education or training program approved as eligible by the government could accept and redeem entitlements for cash from the government treasury. Such institutions would probably include most existing colleges, universities, training institutes and training programs of trade unions, government, and industry. New programs would be eligible to participate by meeting specified eligibility requirements.
- ✧ Government would sponsor an information and regulatory agency that would provide data for participants on training alternatives and their costs as well as program descriptions and job prospects among different occupations and training specialisations. The agency would also set out the specific eligibility regulations to determine both the conditions of student and trainee participation on the one hand, and the requirements that must be satisfied for program eligibility on the other.

Mapping of vouchers against conceptual framework

What is investment?	For fully funded voucher schemes, individuals may invest when the cost of the course exceeds the voucher amount. In the case of partly funded schemes, individuals are required to contribute to the cost of the course and/or materials in order to attract government and/or employer contributions.
What are the options for individual investment?	Individuals select from approved courses, with the voucher covering all or part of the course costs.
Why is individual investment desired?	Partly funded voucher schemes (where individual investment is required) are expected to stimulate demand for education, increase investment in education, overcome market failures, and make the market fairer.
What are the incentives for investment?	Full or part contributions by the government and/or employer, greater consumer choice and control over training paths, and increased competition leading to providers reducing costs, increasing quality and tailoring courses to the needs and requirements of the learners.
What are the disincentives?	Individuals on higher incomes who can supplement the vouchers with their own funds may benefit more from a voucher scheme, training providers may seek out individuals who cost less to educate/train, and choice may be limited in areas of low population density or if the scheme is set up to include a limited range of training providers or courses.
What are the relevant characteristics of the VET sector?	Vouchers are being used in countries with different VET structures and financing arrangements.
What are the characteristics of the clients?	Young employees undertaking continuing vocational training; employees working in certain enterprises; adults currently out of the labour market and wish to re-enter (e.g. women); employed and/or unemployed adults who wish to retrain; adults who wish to increase their skills levels for work-related or personal reasons; and large groups of individuals (universal or means-tested).
What contextual factors should be considered?	Ability of training providers to attract individuals and their vouchers as opposed to supply-side funding arrangements, ability of the administration system to track the use of the voucher (to prevent fraud and maintain quality), and availability of information to allow individuals to make informed choices.

Paid educational leave

The International Labour Organisation Convention 140, dated 24 June 1974, defined sabbatical study leave or paid educational leave (PEL) as leave 'granted to the employee for educational purposes for a specified period during work time and with the payment of appropriate financial benefits (Article 1). Study leave should be granted for the purpose of vocational/professional training and general and political education (Article 2)'. As a result, many European countries have introduced paid educational leave systems which vary in relation to their target groups, leave entitlements and release arrangements, as shown in table 13. Paid educational leave may provide individuals with an incentive to invest in their learning by providing them with paid time away from the workplace.

In many of these countries, paid educational leave is combined with job rotation, and together are referred to as combined training programs. Educational leave 'provides the opportunity for individuals in the labour market to engage in continuing training and education', and job rotation is 'an agreement between one or more employees and their employer that an unemployed person will replace the employee while they attend an educational program' (Hansen 1999, p.60).

The recommendation document presented at the Paid Educational Leave in Europe Conference (21–22 February 2000, pp.1–2) included the following supporting statement for paid educational leave:

> Paid educational leave (PEL) provides the opportunity for workers to develop their personal, social and professional perspectives away from the daily pressures of work and in a way which transcends the simple acquisition of vocational competence. PEL should not be viewed primarily as a business tool to improve efficiency. It must be seen as part of a model of continuing education which embraces all forms of curricula including specifically questions of social cohesion and gender inequality. Such a right would enable disadvantaged and underrepresented groups in the population to participate in continuing education.
>
> (Länge, Domenico & Assathiany 2000)

Bolina (1996) also supports paid educational leave because it motivates individuals to upgrade their skill levels, and thus contribute to productivity and economic growth. As such, paid educational leave is an incentive for individuals to invest in their own learning.

CEDEFOP (2001), in its analysis of European member state reports, found that paid educational leave arrangements were under-exploited despite some examples of good practice in Austria, Denmark, France, Iceland, Norway, Sweden and Spain. Documents produced for the 2000 Paid Educational Leave in Europe Conference (Länge, Domenico & Assathiany) claim that the low participation rates in paid educational leave systems was due to poor publicity, transparency and advice, resistance from employers, workers' fear of job insecurity, and a lack of 'political will' of governments to make paid educational leave a more effective lifelong learning tool. Bainbridge and Murray (2000) attributed the decline in Denmark to the difficulty employers had in finding suitable replacements needed to release employees during periods of economic growth.

To fulfil the potential of paid educational leave, the following principles were recommended at the conference (Länge, Domenico & Assathiany 2000):

- ✧ Paid educational leave should be made available to all working people in both the public and private sectors.

- ✧ Individuals should be entitled to choose their own course, its content, and location of study.
- ✧ Employees shall have full continuity of employment rights and coverage of earnings during the period of release.
- ✧ The minimum period of leave shall correspond to the individual's present and future lifelong learning requirements, defined by means of a European-wide instrument.
- ✧ Various forms of co-investment that provide for worker involvement should be examined as methods of funding continuing education. The schemes should be designed in the interests of those employees who participate in them.

Table 13: Paid educational leave in Europe

Country	Who is eligible?	Types of training and learning covered	Duration of leave
Austria	Private sector employees who have worked for the same company for at least 3 years without interruption	All types of training or continuing training	3 months to 1 year
Belgium	All private sector employees, including employees in SMEs and part-time workers	Both general and vocational education and training	Maximum 180 hours per year
Denmark	Private and public sector employees, unemployed and self-employed	Both general and vocational education and training	Maximum 1 year
Finland	Private and public sector permanent and temporary employees with a minimum of 3 months in same job	Both general and vocational training for competence-based qualifications	Maximum 2 years within a 7-year period
France	Both public and private sector employees including those on temporary or fixed-term contracts	Both general and vocational education and training, initial education and competence-based training	Maximum 3 years in a working lifetime
Germany	Private and public sector employees with a minimum 6 months in the same job	Key subjects: languages, information technology, oratory	5 days/year or 10 days/2 years. Rights can be transferred or merged.
Greece	Private and public sector employees	Further and post-graduate training, on-the-job training, examinations	Maximum 5 years in a working lifetime
Iceland	Private and public sector employees, and the unemployed	Courses, seminars and conferences at the level of initial and continuing vocational training	No general rule or restriction
Italy	Private and public sector employees, and people returning to the workforce after a period of absence	Vocational training programs and school leaving certificates	Maximum of 150 hours per year
Luxembourg	Public sector employees, civil servants and staff representatives in private sector companies	All types of civic and social training, and further training focuses on young people, vocational training for adults. For company representatives, courses on company financial management, labour law etc.	For public sector employees max 60 days per working life. For private company representatives max 1 week per year.
Netherlands	Both private and public sector employees	Courses at all levels from basic to higher vocational education	Average duration is 5 days per year.
Norway	Public and private sectors employees including the self-employed, freelance workers and the unemployed	Basic primary and secondary education and work-related education and training	Maximum 3 years
Spain	Private and public sector workers with at least 1 year in the same company	Post-graduate university courses and other types of officially recognised vocational training courses	Maximum 200 working hours
Sweden	Private and public sector employees with at least 6 months in the same job	General and vocational education	Maximum 6 years full-time
United Kingdom	Only employees aged 16 and 17 in public and private sectors without level 2 qualifications	Level 2 qualifications (e.g. national vocational qualifications, General Certificate in Secondary Education)	'Reasonable time off': e.g. 1 day a week

Note: SME = small to medium-sized enterprises.

Source: CEDEFOP (2001)

The Campaign for Paid Educational Leave is a coalition of organisations calling on the government to give every United Kingdom worker a legal entitlement to a minimum amount of paid study time. It argues that lack of time is the biggest barrier to people taking up learning. The campaign aims to address the following questions through consultation with government and employers:

- How would a statutory right to paid educational leave be introduced in the United Kingdom?
- What would be an appropriate national minimum entitlement to paid educational leave for all workers?
- What should be the balance between employers, employees and the government contribution to the provision of an entitlement to paid educational leave?

Denmark's leave-of-absence schemes

Although job rotation schemes have existed in Denmark since 1987, leave-of-absence schemes for educational leave, sabbatical leave and childcare leave were integrated in legislation as a labour market reform policy in Denmark in 1994. The aims of the schemes were to reduce unemployment by means of job rotation and work sharing in the labour market, improve the qualifications of the workforce, improve opportunities for lifelong learning (especially, in the case of educational leave), provide unemployed people with on-the-job training, and to relieve time pressure on families with small children (Jensen 2000). Despite these aims, Jensen (2000) argues that the new Social Democrats Government was under political pressure to solve the unemployment problem (the unemployment rate peaked at 12.4% in 1993) and these schemes were cheap or cost-neutral problem-solving instruments.

The features of the leave-of-absence scheme for educational leave are as follows:

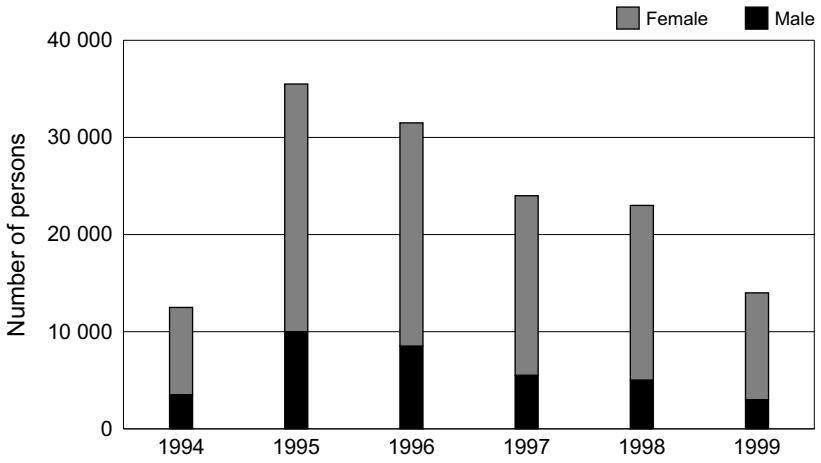
- Employed, unemployed and self-employed citizens aged between 25 and 66 are eligible for educational leave for vocational training, general education and personal development, if the employment service accepts the applicant's educational plans.
- The person on leave is eligible for unemployment benefits, which in January 2000 was 382€ a week, if they are in an insurance scheme.
- Unemployed people can apply for six weeks training leave within the first year of unemployment.
- Employed people can apply for leave of between one and 52 weeks. They have the right to re-employment with their previous employer. An employee can also make an individual agreement with their employer for continued payment of their salary during the leave period.
- Employers are not obligated to replace the person on leave with another person, but job rotation incentives are in place to encourage substitution. For example, the employment centre pays for the training of substitutes, and employers paying the full salaries of the substitutes receive an extra 20% of the educational leave grant (Kruhoeffer 1999). According to Drescher (2000), unemployed people who work as substitute labour receive training in a specific area of interest combined with specific general training, and thus contribute to the pool of employees trained in the area.

Prior to 1994, only employees were eligible for educational leave and employers were required to fill their position when employees commenced their leave (Hansen 1999). Changes to the scheme, which included giving access to the unemployed and self-employed, resulted in a significant increase in average participation from 12 272 in 1994 to 35 502 in 1995 (figure 6). These figures do not represent the total number of persons undertaking educational leave during one year, as 75 146 people were engaged in educational leave in 1996 and nearly half (47%) of people who began educational leave in this year were already unemployed (Hansen 1999). The average educational leave amounted to 184 days in 1995 (Jensen 2000). Similar to the schemes for sabbatical and child care leave, the majority of people on educational leave were female (figure 5). Jensen (2000) referred to research undertaken by Madsen (1998), who found that about 60% of the female workforce

using the leave schemes were from the public sector, and included occupations that posed no risk by taking leave as they worked in sectors that were not hierarchically organised or contained career ladders, such as nurses, social workers and pre-school teachers.

Given the difficulty in finding a long-term unemployed person with the right qualifications to substitute the person on leave, most people employed as substitute labour were previously employed or had been unemployed for a short period of time. Hansen (1999) found that the replacement effect was 58% in the public sector and 41% in the private sector.

Figure 5: Participation in educational leave in Denmark, 1994 to 1999

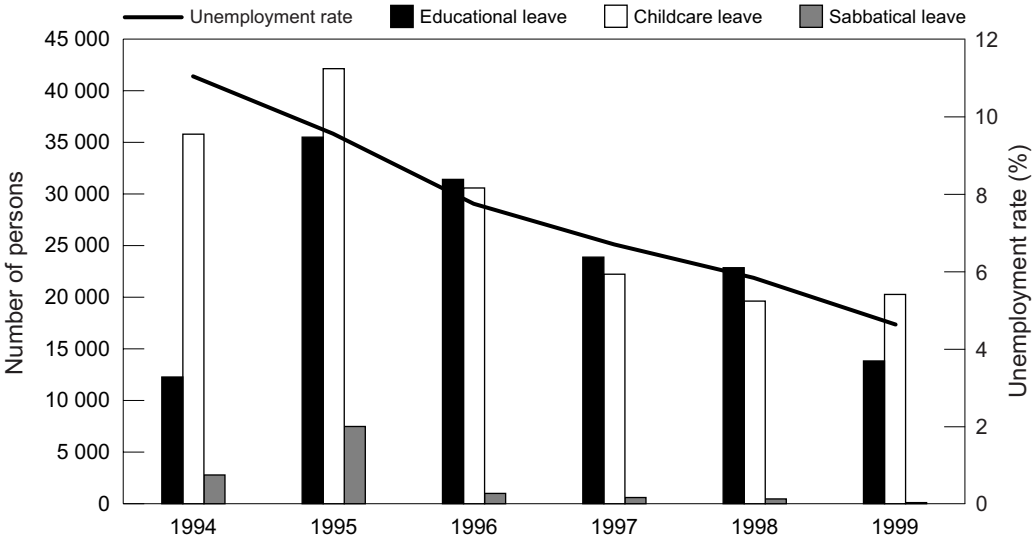


Source: Hansen (1999)

As shown in figure 6, participation in the leave-of-absence schemes generally declined in response to a lower unemployment rate. Participation after 1995 has continued to fall to 13 826 people in 1999. Economic growth resulted in a reduction in the pool of substitutes with the right skills and less time given by employers to job rotation (Kruhoeffer 1999). A number of other reasons were given for the decline in the schemes (Jensen 2000 and Kruhoeffer 1999):

- ✧ Compensation for those involved became less attractive.
- ✧ The funding condition that substitutes had to be long-term unemployed deterred many companies.
- ✧ Administration of job rotation projects, especially for small companies, is rather heavy.
- ✧ Some companies accessed schemes for the funding only or to comply with union requests, rather than to address the need for further training of low-skilled workers, or to actually use the new skills acquired by the employees.
- ✧ There was a lack of local managers and networks, especially in the case of very small companies and branches with little experience in further education, to ensure the quality and further development of the projects.

Figure 6: Participation in leave-of-absence schemes and unemployment rate in Denmark, 1994 to 1999



Source: Hansen (1999)

The Employers' Association criticised the leave schemes for giving 'rise to structural imbalances and bottleneck problems, especially in the public sector' (Jensen 2000, p.7), which lead to skill shortages in the social and health care sector, and partly in the primary and secondary schools. The Minister for Labour suggested that leave schemes should be selective and dependent on the employment situation in each occupation and sector.

Study leave in Sweden

Study leave for Swedish employees was first legislated in 1974. Features of study leave in Sweden are as follows (Gould 2002; Länge, Domenico & Assathiany 2000; Andersson 2000):

- ✧ Private and public sector employees are eligible if they have completed six months work at one company or 12 months work in the last two years.
- ✧ Employers cannot refuse to grant study leave but can postpone leave for up to six months.
- ✧ Employees have the right to return to the same or similar work.
- ✧ Education in the Act is defined as academic, vocational, recreational and political. For example, employees can take leave to study full-time for a three-year university degree or for ten days off part-time to attend a trade union course in negotiating skills or welfare rights.
- ✧ Employees receive a special education grant equivalent to unemployment benefits to study core subjects at the upper secondary level, grants or loans similar to other students to undertake degrees, and compensation from trade unions or employers to attend trade union courses.
- ✧ Employers can access government grants for educational leave replacement that train existing employees and give temporary jobs to unemployed persons.
- ✧ Employers pay reduced social welfare contributions when they recruit a substitute from the employment service. In 1996, the cost of reduced social welfare contributions for educational leave replacement was SEK 1730 million (Andersson 2000). In 1997, the payment of reduced contributions was replaced with subsidies.

National statistics on study leave show that about 1% of employees participated in the 1980s, dropping to 0.5% in 1995 and has since risen to 0.8%. Educational leave is mostly used by women (76%) and public sector employees, in particular employees in health care and child care. Although

participation seems low, Gould (2002) argues that a higher percentage of the labour force have taken study leave at some point in their working lives.

As part of its evaluation of social democratic policies, the newly elected centre-right coalition released its findings into the investigation of study leave in 1994 (Gould 2002), some of which were not consistent with the concerns by the employers' federations that the rights to study leave had damaged Swedish industry:

- Only 30% of large companies and 20% of small companies (less than 100 employees) had a problem administering study leave.
- Less than 50% of large companies and 30% of small companies claimed that production had been disrupted.
- In terms of an overall attitude towards study leave, 25% of employers were positive, 25% negative and 50% neutral.

The report recommended that study leave be restricted in duration and to work-related courses and not be available to those people not intending to return to their jobs. However, the scheme remained unchanged as the Social Democrats were returned to office in 1994.

Gould (2002) found that there has been little debate about study leave since this report. Study leave was originally part of the adult education initiative program, *Kunskapslytet* (knowledge-raising), to increase the educational level of the least educated during a period of unemployment. It has now become part of the educational landscape, with little opposition from employers. Disagreements are usually about what is regarded as the 'same or similar leave' when the employee returns from study leave, and if necessary, conflicts are resolved through negotiation in the Labour Court.

Other issues that have arisen include problems that some employers have in finding substitute labour, and lack of rights of replacement workers. The individual learning account initiatives of the private sector (headed by Scania) and the government scheme to commence in July 2003 are expected to lead to an increase in participation in study leave.

Belgium's leave for vocational training purposes

Leave for vocational training purposes in Belgium was first introduced in 1985 and aims to give workers the opportunity to take paid time off to improve their intellectual or vocational education and training (European Training Village 2004). Features of paid educational leave, *Betaald Educatief Verlof Conge-Education Paye*, are as follows (European Training Village 2004; European Foundation for the Improvement of Living and Work Conditions 2002):

- Full-time employees in the private sector have the right to be absent from work, while retaining their normal pay or wage, for a number of hours equivalent to the number of course hours being attended for vocational training or general education. The annual maximum fixed by law is 120 hours a year for courses outside normal working time, and 180 hours for courses in working time.
- Within each enterprise, the Works Council organises the leave by taking into account the needs of the employer and the interests and individual circumstances of each employee, with sectoral planning taking precedence over individual plans. This planning may not impede the right of employees to exercise their right to paid educational leave in travelling to courses, attending courses, returning to the workplace after courses and sitting examinations.
- Where there is no Works Council, the union delegation plans absences through a common agreement with the employer.
- If there is disagreement, the case is submitted to the employment and labour inspectorate of the Ministry of Employment and Labour, which first attempts to conciliate and, if this fails, issues a decision on the matter.

- The cost of leave is divided between the state, which pays a fixed grant, and the employer, who pays the remaining expenditure in the form of modulated employer's social contribution. The Ministry of Employment and Labour reimburses the employer for pay and social security contributions of employees for 50% in the case of vocational training and 100% in the case of general education.
- The legislation includes a provision to protect employees who take leave from dismissal. Unless the employer can prove motives that are unconnected with the training leave, or where there are no valid motives, the employer must pay three months' pay over and above the normal period of notice or payment in lieu.
- The 2001–02 intersectoral agreement, signed by social partners in December 2000, included a provision that entitled part-time workers to paid education leave for vocational training.

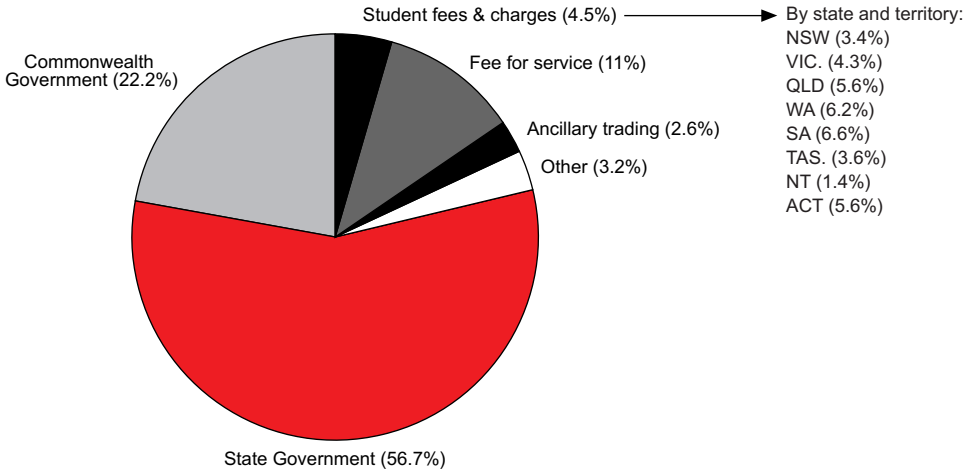
Mapping of paid educational leave against conceptual framework

What is investment?	Investment by individuals represents income forgone (reduced income) to undertake training. Although not stated in the examples, paid educational leave may be an incentive for individuals to contribute to the cost of the training course.
What are the options for individual investment?	Usually in conjunction with the employer, individuals decide what course they intend to undertake, taking into consideration the maximum time allowed and other conditions.
Why is individual investment desired?	The schemes primarily aim to provide individuals with time away from the workplace for education and training. In most cases, this training is relevant to the workplace.
What are the incentives for investment?	Individuals receive financial benefits (some funded from insurance schemes) equivalent to the unemployment benefit or higher when arrangements are made with the employer, and they return to the same or similar work. Employers are eligible for government grants if they use substitutes who are unemployed. Employees return from study leave usually with new skills and knowledge relevant to the workplace.
What are the disincentives?	Employers find it difficult to find suitable substitutes to replace those individuals on leave; administrative burden of job rotation; and employees' fear of job insecurity.
What are the relevant characteristics of the VET sector?	Education Leave is legislated in many European countries, largely in response to the International Labour Organisation Convention 140.
What are the characteristics of the clients?	Public and private sector employees, and in some cases, unemployed and self-employed individuals are eligible. Particular sectors and occupations, and females, have tended to participate more.
What contextual factors should be considered?	Factors to be considered include the role of trade unions and peak bodies in encouraging educational leave; ability of employers, employees and governments to contribute to the costs of paid educational leave; the economic cycle (as unemployment leads to greater participation); views about an appropriate national minimum entitlement; the level of educational attainment of individuals; and the cost of the courses that individuals undertake (and their contribution to this cost).

Mechanisms in Australia

Private sector expenditure on vocational education and training in Australia is calculated as investment by firms and student fees and charges, with the latter the main measure of investment by individuals in vocational education and training. Investment by individuals, as indicated by student fees and charges in figure 7, accounts for a very small proportion of recurrent revenue in vocational education and training. The contribution of student fees and charges peaked at 5% in 1996 and was 4.5% in 2002 (NCVER 2003).

Figure 7: Recurrent revenue by revenue classification, 2002



Source: NCVER (2003)

As shown in table 14, the contribution of student fees and charges to total revenue for vocational education and training in Australia (as represented by the share of revenue) has varied slightly over the last four years, similar to other sources of revenues. However, the revenue from student fees and charges has continued to increase, and its growth of 6.9% in 2002 was the second highest recorded of all revenue sources and above the overall growth rate for recurrent revenue of 5.3%.

Dumbrell (2000) found that despite the development of a coordinated approach to government funding of vocational education and training in Australia, 'there are still no mechanisms to relate government-funded effort in vocational education and training to the substantial training activity outside that funded by government' (p.3) and 'the current VET funding scheme used in government-funded VET in Australia is largely not focused on the individual' (p.17). Individuals also invest in vocational education and training in other ways that are not measured: paying for costs associated with education (such as living expenses, child care and resources), and forgoing income by delaying entry to or leaving the workforce to study.

There are two sets of analyses that can assist in determining which mechanisms are more likely to encourage individuals to participate and invest in vocational education and training in Australia:

- ✧ the characteristics of the Australian education and training systems and the behaviour of the Australian labour market
- ✧ current structures and mechanisms within the Australian VET system.

Table 14: Recurrent revenue by revenue classification, growth rates and shares, 1999–2002

$ (millions)	1999	2000	2001	2002
Student fees & charges	159.8	171.3	182.1	194.6
Fee for service	341.5	426.9	445.1	478.7
Ancillary trading	82.0	102.3	110.9	114.0
Other	114.2	154.8	140.9	137.7
State government	2230.0	2279.4	2347.1	2466.5
Commonwealth Government	823.7	835.0	912.8	965.9
Total recurrent revenue	**3751.2**	**3696.6**	**4138.9**	**4357.4**
Growth rates				
Student fees & charges	3.4	7.2	6.4	6.9
Fee for service	5.9	25.0	4.3	7.5
Ancillary trading	-4.6	24.8	8.4	2.8
Other	7.0	35.5	-8.9	-2.3
State government	1.7	2.2	3.0	5.1
Commonwealth Government	-4.8	1.4	9.3	5.8
Total recurrent revenue	**0.6**	**-1.5**	**12.0**	**5.3**
Share of revenue				
Student fees & charges	4.3	4.6	4.4	4.5
Fee for service	9.1	11.5	10.8	11.0
Ancillary trading	2.2	2.8	2.7	2.6
Other	3.0	4.2	3.4	3.2
State government	59.4	61.7	56.7	56.6
Commonwealth Government	22.0	22.6	22.1	22.2

Source: NCVER (2003) and NCVER (2002)

As indicated in table 15, the distribution of tertiary level qualifications in Australia between degrees (type A) and diplomas (type B) is similar, albeit slightly stronger than the OECD mean. There has been robust growth in non-school education and training in Australia, including significant growth in vocational education and training, which includes apprenticeship and traineeship growth (although the growth in apprenticeships is weaker). On the other hand, VET qualifications completions have been relatively static over the past decade. Labour market outcomes also are relatively consistent with OECD patterns, being very strong for degrees and positive for VET level qualifications.

Levels of adult participation in vocational education and training compared with OECD country patterns are moderate to strong, but the number of hours per individual are relatively weak. To an extent this is because comparisons are made against a number of European nations that have higher levels of unemployment and stronger publicly funded labour market programs that are VET-based. Levels of industry based vocational education and training in Australia are not strong.

Table 15: Percentage of the population that has attained tertiary-type B education or tertiary-type A and advanced research programs, by age group, 2002

	Tertiary-type B education					Tertiary-type A and advanced research programs				
	25–64	25–34	35–44	45–54	55–64	25–64	25–34	35–44	45–54	55–64
OECD countries	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*
Australia	11	11	11	11	10	20	25	21	19	13
Austria[1]	7	7	8	8	6	7	7	8	7	5
Belgium[1]	15	20	16	13	10	13	18	13	11	8
Canada	22	25	23	21	16	21	26	20	20	16
Czech Republic	x(6)	x(7)	x(8)	x(9)	x(10)	12	12	14	11	11
Denmark	5	6	6	5	4	23	23	24	25	18
Finland	17	19	21	16	12	16	21	17	14	11
France	12	17	12	9	6	12	19	11	10	9
Germany	10	8	11	11	10	13	13	15	14	11
Greece	6	7	8	4	3	13	17	14	12	7
Hungary	x(6)	x(7)	x(8)	x(9)	x(10)	14	15	14	14	13
Iceland	6	6	7	7	4	20	23	22	19	12
Ireland	10	14	10	7	5	16	23	15	12	9
Italy	x(6)	x(7)	x(8)	x(9)	x(10)	10	12	11	10	7
Japan	16	25	20	12	7	20	25	25	19	11
Korea	8	15	7	2	1	18	26	21	11	8
Luxembourg	7	9	8	6	5	12	14	12	10	10
Mexico	3	6	2	2	3	2	5	1	1	2
Netherlands[1]	3	2	3	2	2	22	25	23	21	17
New Zealand	15	12	15	17	17	15	18	16	15	9
Norway[1]	3	2	3	3	2	28	37	29	26	20
Poland	x(6)	x(7)	x(8)	x(9)	x(10)	12	16	11	11	11
Portugal	2	3	2	2	2	7	12	7	5	3
Slovak Republic	1	1	1	1	1	10	11	10	11	8
Spain	7	12	7	4	2	17	25	18	13	8
Sweden	15	17	18	14	10	18	22	16	17	16
Switzerland	9	10	10	9	7	16	17	17	16	14
Turkey	x(6)	x(7)	x(8)	x(9)	x(10)	9	11	8	9	7
United Kingdom	8	8	9	8	7	19	23	18	18	13
United States	9	9	10	10	7	29	31	29	30	26
Country mean	**8**	**9**	**8**	**7**	**5**	**16**	**19**	**16**	**14**	**11**

Note: x indicates that data are included in another column. The column reference is shown in brackets after 'x'. *e.g.,* x(2) means that data are included in column 2.

Source: OECD (2004), table A3.3

At the entry level, VET students have a lower average socioeconomic status level than higher education students. Across the age groups, participation rates decline with age. Nevertheless they are quite strong among 30 to 39-year-olds, and even 40 to 49-year-olds (table 16), given the limited periods that these groups will have in the workforce. Patterns of participation among women are weaker in young age groups, but get stronger relative to men with successive age groups. This may be associated with women returning to work after child rearing and the movement into full-time work from part-time work, which is highly concentrated among sub-40-year-old women.

Table 16: Participation in vocational education and training, by age and sex, Australia, 2003

	VET clients			Participation		
	Males	Females	Persons	Males	Females	Persons
Age cohort	*no.*	*no.*	*no.*	*%*	*%*	*%*
14 years or under	5 300	4 500	9 800	0.6	0.5	0.6
15–19 years	196 200	159 400	356 000	22.4	19.1	20.7
20–24 years	154 200	122 000	276 500	17.6	14.6	16.1
25–29 years	94 100	83 300	177 700	10.7	10.0	10.3
30–39 years	165 400	159 900	325 800	18.9	19.2	19.0
40–49 years	131 100	154 300	286 000	15.0	18.5	16.6
50–59 years	76 900	86 600	163 800	8.8	10.4	9.5
60–64 years	15 100	16 100	31 300	1.7	1.9	1.8
65 years or over	13 900	19 100	33 100	1.6	2.3	1.9
Unknown	23 700	29 200	57 800	2.7	3.5	3.4
Total	**875 900**	**834 400**	**1 717 800**	**100.0**	**100.0**	**100.0**

Source: NCVER (2004)

A study by Aungles, Karmel and Wu (2000), on the possible impact of major demographic changes on educational participation and education funding in the longer term, estimated a lifetime probability of entering technical and further education of 52%. Rising living standards, greater access to education and training and people studying for longer are expected to lead to growth in the student population, particularly those in younger and older cohorts. As a result, Aungles, Karmel and Wu (2000) estimated real growth of 54% in TAFE expenditures between 1995–96 and 2020–21. However, the ageing population is placing increasing upward pressure on health and welfare expenditures, which may constrain the growth of education expenditures over the longer term.

It is very difficult to make judgements about the capacity to increase individual demand for vocational education and training in Australia as a basis of increased levels of individual investment. Upon the basis of comparative data, it would seem that the main scope for increased participation is in the areas of mid to low level income individuals, younger women, older men and workers with low levels of initial education and training. On the whole, these groups have the lowest levels of income, and it is not surprising that they should have lower levels of participation in continuing vocational education and training.

Given that most of the VET participants are full-time workers it obviously is the case that VET provision needs to be structured in a manner that accommodates typical work patterns. This goes beyond the patterns of working hours, and includes income and cost commitments associated with the above profiles. The scope of incentives typically would be divided between returns and costs. However, incentives can cover both of these domains, and measures such as taxation advantages, including incentives within superannuation schemes, should be considered. Furthermore, the dovetailing of individual and social returns has obvious advantages, and measures that lead to other social objectives, such as higher levels of individual and employer investment in superannuation, should also be factored into the options.

The current Australian VET system is subject to industry demand and individual demand. Public funding formulae cannot completely reconcile these sets of demands, although there does not appear to be any strong evidence of substantial imbalance. As well, such an analysis of this imbalance is beyond the scope of this report. In general, the report is focused on factors that can increase individual demand without challenging the industry focus of the VET system or the quantum of public finances that are invested in the system. Policy instruments that might be available include the following:

- ✧ cost reduction arrangements including the use of recognition of prior learning and credit transfer, especially for work and community based learning
- ✧ alternative delivery arrangements that can lead to cost reductions

- ✧ flexible delivery arrangements that can lead to better individual access
- ✧ course design and customisation that can increase the attractiveness of programs
- ✧ loan schemes that provide fee and income support for the VET investment
- ✧ fee schemes, possibly complemented with scholarships, that attempt to tap areas of unmet demand (similar to those to be introduced into higher education)
- ✧ fee schemes that embody incentives for employer investment
- ✧ taxation incentives
- ✧ superannuation incentives, such as a reduction on taxation of superannuation investments.

As indicated in figure 7, vocational education and training has a diverse funding base, relative to those of the other two major sectors. There is a national training system in Australia. However, the state and territory governments are the major sources of funding, and the introduction of any of the schemes that have been explored in this report would face potential administrative and constitutional barriers. Some of the potential options have implications for taxation, including income tax, and for other financial systems such as superannuation. In many cases, therefore, mechanisms would require the cooperation of the two levels of government.

All of the options involve the construction of regimes of fees and charges across the VET sectors in each state. These already exist, although mostly at the margins, and the fact that fees are set at different levels across the states and territories indicates that there could be some flexibility in these arrangements. The Commonwealth Government has neither the constitutional authority to enable, nor the financial contribution to justify, it to dictate these matters, and the VET provider market is so diversified that the contingent grants would have a limited impact. Some of the potential barriers to the four categories of schemes have been cited in the relevant sections of this report. However, some of the barriers that might be most significant in the Australian context are briefly cited in table 17.

Table 17: Administrative, legal and constitutional barriers of the four mechanisms

Option	Possible barriers
Individual learning accounts	If they were to be introduced ideally they should be applicable to tertiary education in general; otherwise the incentives for individuals to invest in them would be limited. Alternatively, accounts that invited employer contributions supported by taxation arrangements that encouraged employer contributions would have some advantages.
	The main administrative barrier would be the management of these accounts and their portability.
	Incentives within learning accounts such as tax incentives might be difficult to negotiate across governments.
Paid educational leave	Restricting paid leave that may involve individual and employer contributions to VET programs would be difficult.
	It is doubtful if legislated arrangements that required employer input, or even flexibility, would be acceptable in Australia—as the paid maternity leave debate has shown.
Student loan schemes	The main constitutional barrier is the lack of any basis for a Commonwealth Government initiative.
	It would be more difficult to set income contingent levels, given the lower rates of return for VET qualifications.
Vouchers	Vouchers would require administrative arrangements for designating courses and providers where the vouchers could be realised. They also would require negotiations over the levels of the different government and individual contributions.
	The responsibility for the allocation of vouchers within the mixed funding model of Australian VET would be difficult.

Atchoarena (1996) identified six key variables that affect the funding formula for training. These variables, which are useful for assessing the suitability of these mechanisms in the Australian context, are the:

- ✧ *structure and size of the economy*, in terms of the extent to which the State can share the cost of a mechanism with other partners

- *economic policy*, which may be contradicted by financing strategies for a mechanism
- *maturity of social partners*, where the performance of a mechanism is dependent on the attitude of individuals and employers regarding training
- *state of relationships* between the partners involved with the mechanism
- *institutional capacity* to enforce, manage and control a mechanism
- *objectives of the financing system*, such as using a mechanism to raise funds, increase participation and/or address inequities.

It is not possible for this study to offer a formula for the most effective approaches to achieve increased individual investments in vocational education and training. A more definitive conclusion needs to be informed by a thorough analysis of the preferred mechanisms (using for example the above variables) and finding answers to a range of questions, including:

- How much of the cost of lifelong learning is the individual responsible for?
- Should the financing of lifelong learning be based on who benefits most?
- What would motivate individuals to invest and reinvest in lifelong learning?
- How do individuals estimate a return on their investment?
- What allowances can be made for individuals who can't afford to invest?
- Should mechanisms target specific income, age and social groups?
- Should mechanisms promote equity, efficiency and quality?
- How will the VET funding scheme incorporate investments made by individuals from one or a number of mechanisms?
- Apart from a mechanism's ability to increase investments made by individuals, what other factors should be evaluated?

The study does show that there is a range of mechanisms that potentially could be applied to the Australian context. It is apparent that the effectiveness of these mechanisms variously are influenced by structural and behavioural characteristics of education and training in Australia. Key factors, however, are the private rates of return for vocational education and training, the overall levels of demand (including unmet demand), and the patterns of continuing education and training that are built upon patterns of initial education and training. Together these factors lead to a conclusion that any selection of mechanisms will need to be informed by social and economic policy priorities. That is, an adoption of mechanisms cannot be value- or policy-neutral.

In this sense, there are advantages in looking, in the first instance, to relatively benign mechanisms of credit transfer, recognition of prior learning, flexible delivery and course design. However, it may be that these mechanisms are approaching exhaustion in Australia (and indeed internationally), and if this is the case, the more direct financing innovations would need to be considered. The use of these mechanisms will be predicated on questions of whether the overall levels of public investment in vocational education and training are likely to be increased or decreased. In a context of stable or declining public investment, there are good arguments for targeting the mechanism at certain client groups or VET programs. In other words, the range of options of mechanisms to encourage individual investment in VET programs that have been considered in this report, when considered against the patterns of participation and outcomes, including private rates of return, of VET programs in Australia, if implemented universally would not have consistent impacts across client groups, and would have implications for equity, the patterns of lifelong learning, and the overall levels of individual demand for VET courses.

Options for Australia

If the vision of lifelong learning is to be realised in Australia, it will be necessary to achieve higher levels of non-state funding in vocational education and training. There is an emerging consensus that individuals should be contributing especially to continuing education and training for the purposes of career and occupational mobility and renewal. There is ample evidence in the form of unmet demand of the willingness of the population, or elements of it, to invest in higher education. The evidence is not so apparent in vocational education and training, and the relative rates of return between vocational education and training and higher education must go a long way to explaining this.

It also is the case, however, that higher education tends to serve the elite economic and educational market. Students entering higher education tend to come from higher income households and have stronger scholastic records. Within a limited demand market VET/TAFE mainly serves a market that has less financial resources and weaker scholastic records. Both of these variables have a major negative impact upon the demand for education and training.

While the structural changes in the youth labour market have reduced the opportunity costs for young people to continue in education and training, this is less so for males and the occupational entry currency of VET qualifications is variable. These factors need to be considered with another major difference between vocational education and training and higher education. Higher education is predominantly full-time, but vocational education and training is generally part-time.

The establishment of fees for full-time post school VET courses is problematic because of its potential impact upon demand, the relative costs between VET certificate programs and government subsidies for higher education courses (which mostly are equivalent or more for some high costs courses), and the economic circumstances of the VET clients.

The fundamental difference between the Higher Education Contribution Scheme mechanism as a means of gaining individual contributions to higher education and options in the VET sector is that the VET sector does not currently have the excess demand that provides the foundation for the Higher Education Contribution Scheme. Without excess demand neither the Higher Education Contribution Scheme nor the full fee options would have been possible. Essentially, therefore, the Higher Education Contribution Scheme met a supply side problem by exploiting the demand side capacity. Therefore, increasing the financial base for VET supply (as the Higher Education Contribution Scheme has done in higher education) would involve building demand for vocational education and training and ensuring the system's capacity to exploit this demand. This would involve an optimal policy mix within a fixed budget for expenditure that maximises participation and investment by individuals. Findings from this report suggest the following mechanisms to be included within such a policy mix:

- ✧ Mechanisms should concentrate upon expanding demand for continuing vocational education and training, which in the main will be among people in paid employment.
- ✧ Learning accounts and, to a lesser extent, paid educational leave offer the most potential as mechanisms to achieve increased demand and investment.
- ✧ Mechanisms need to offer incentives for individuals to invest, preferably in conjunction with incentives for employers.
- ✧ Incentives could include taxation breaks, for both workers and employers, and superannuation.

Given the higher propensity for higher income and better educated workers to invest in education and training, any schemes would need to have mechanisms to ensure that lower paid and educated groups are encouraged to participate and invest.

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Appendix tables

Table 18: Relative earnings of the population with income from employment by level of educational attainment and gender for 25 to 64-year-olds and 30 to 44-year-olds, 2002 (upper secondary education = 100)

			Below upper secondary education		Tertiary-type B education		Tertiary-type A and advanced research programs		Tertiary education	
			25–64	30–44	25–64	30–44	25–64	30–44	25–64	30–44
Australia	2001	Males	85	83	116	108	160	157	145	141
		Females	85	84	114	119	159	168	142	151
		M+F	77	75	106	102	148	148	133	132
Belgium	2002	Males	91	97	116	120	144	149	132	136
		Females	84	83	124	124	168	185	140	146
		M+F	91	95	114	115	152	162	132	136
Canada	2001	Males	79	78	117	115	179	183	147	147
		Females	68	65	119	120	179	179	145	145
		M+F	79	78	115	113	177	178	143	142
Czech Republic	1999	Males	75	77	177	182	178	176	178	177
		Females	72	75	127	124	172	176	170	174
		M+F	68	70	151	151	180	182	179	181
Denmark	2001	Males	87	83	110	109	139	135	132	128
		Females	90	89	114	112	125	122	124	121
		M+F	87	85	114	113	127	123	125	121
Finland	2001	Males	92	89	129	125	190	180	163	155
		Females	98	94	126	124	172	167	146	141
		M+F	95	92	121	115	181	171	150	141
France	2002	Males	88	86	127	132	178	173	159	157
		Females	81	80	131	135	157	159	146	148
		M+F	84	84	125	129	167	165	150	150
Germany	2002	Males	85	87	117	113	156	152	142	137
		Females	75	72	117	112	157	153	142	138
		M+F	78	80	120	115	161	154	146	139
Hungary	2001	Males	81	81	205	182	252	253	252	253
		Females	77	80	143	128	180	174	179	174
		M+F	77	78	164	144	210	203	210	202
Ireland	2000	Males	82	77	117	123	143	140	135	133
		Females	64	61	132	126	181	155	161	144
		M+F	87	83	124	130	163	152	149	143
Italy	2000	Males	71	72	m	m	143	140	143	140
		Females	84	80	m	m	137	132	137	132
		M+F	78	77	m	m	138	133	138	133
Korea	1998	Males	88	90	105	109	143	136	132	129
		Females	69	75	118	138	160	181	141	164
		M+F	78	80	106	113	147	142	135	134

			Below upper secondary education		Tertiary-type B education		Tertiary-type A and advanced research programs		Tertiary education	
			25–64	30–44	25–64	30–44	25–64	30–44	25–64	30–44
Netherlands	1997	Males	88	86	145	130	141	133	142	132
		Females	73	73	131	136	148	154	146	152
		M+F	85	84	139	131	144	139	144	138
New Zealand	2001	Males	76	74	m	m	130	122	130	122
		Females	72	72	m	m	136	135	136	135
		M+F	74	75	m	m	133	128	133	128
Norway	2002	Males	86	90	142	145	139	139	139	139
		Females	83	88	149	152	141	142	141	143
		M+F	85	91	155	152	135	135	137	136
Portugal	1999	Males	60	57	150	155	190	194	180	185
		Females	63	58	133	139	188	206	170	185
		M+F	62	58	141	146	192	202	178	187
Spain	2001	Males	79	82	99	97	157	135	138	122
		Females	64	65	86	88	136	138	125	126
		M+F	78	80	95	95	141	133	129	122
Sweden	2001	Males	87	86	114	114	158	162	146	149
		Females	88	85	116	109	139	137	130	126
		M+F	89	87	110	105	148	148	135	133
Switzerland	2003	Males	77	79	121	122	149	149	138	138
		Females	76	85	140	150	164	174	156	166
		M+F	76	81	141	146	168	170	158	161
United Kingdom	2001	Males	72	67	124	126	157	162	147	151
		Females	70	74	142	133	206	216	183	183
		M+F	67	68	128	124	174	181	159	161
United States	2002	Males	68	70	120	122	202	205	193	195
		Females	67	67	122	122	185	191	176	182
		M+F	71	71	118	118	195	196	186	187

Note: m = not available

Source: OECD (2004), table A11.1a

Table 19: Average annual earnings of women as a percentage of men by level of educational attainment of 30 to 44-year-olds and 55 to 64-year-olds, 2002

		Below upper secondary education		Upper secondary and post-secondary non-tertiary education		Tertiary-type B education		Tertiary-type A and advanced research programs		All levels of education	
		30–44	55–64	30–44	55–64	30–44	55–64	30–44	55–64	30–44	55–64
Australia	2001	61	59	60	70	65	58	64	58	63	60
Belgium	2002	61	65	72	66	74	81	89	82	75	67
Canada	2001	50	60	59	70	63	57	59	55	61	62
Czech Republic	1999	66	58	67	64	45	62	67	63	63	61
Denmark	2001	76	68	71	70	73	74	64	64	72	67
Finland	2001	71	77	67	76	67	73	62	68	69	71
France	2002	70	65	76	72	78	68	69	66	76	62
Germany	2002	48	66	60	55	57	56	59	65	58	54
Hungary	2001	83	81	84	94	59	48	58	69	77	78
Ireland	2000	50	48	63	39	64	47	69	80	65	56
Italy	2000	79	78	72	53	m	m	67	83	77	69
Korea	1998	57	62	69	70	87	96	92	99	67	50
Netherlands	1997	46	43	55	50	57	39	63	50	55	45
New Zealand	2001	59	57	61	70	m	m	68	54	62	61
Norway	2002	60	62	61	63	65	66	63	62	64	61
Portugal	1999	72	70	70	67	63	57	75	68	73	66
Spain	2001	61	48	78	74	70	57	79	42	79	47
Sweden	2001	72	73	71	69	70	73	62	66	70	71
Switzerland	2003	53	47	50	51	61	51	58	59	50	46
United Kingdom	2001	55	43	50	53	53	81	66	66	54	54
United States	2001	59	65	61	61	62	69	58	59	61	58

Note: m = not available

Source: OECD (2004), table A11.1b

Table 20: Unemployment rates by level of educational attainment and gender of 25 to 64-year-olds and 30 to 44-year-olds, 2002

		Lower secondary education	Upper secondary education (ISCED 3A)	Tertiary-type B education	Tertiary-type A and advanced research programs	All levels of education
		(1)	(2)	(3)	(4)	(5)
Australia	Males	6.8	4.3	4.1	2.6	4.5
	Females	3.4	3.2	3.7	2.0	3.1
Austria	Males	5.9	1.5	1.0	2.2	3.2
	Females	2.9	2.7	1.0	2.4	2.5
Belgium	Males	5.3	3.6	2.6	3.1	4.5
	Females	6.0	4.8	2.8	3.9	4.6
Canada	Males	8.6	5.8	5.4	4.5	5.9
	Females	5.7	5.0	3.9	3.9	4.6
Czech Republic	Males	14.8	2.2	X (4)	1.6	4.2
	Females	8.6	3.9	X (4)	1.6	5.6
Denmark	Males	3.5	1.4	3.5	3.2	3.1
	Females	4.6	2.9	2.5	4.8	3.2
Finland	Males	8.0	7.4	4.8	3.1	6.5
	Females	8.1	7.0	4.8	3.1	6.2
France	Males	9.8	6.0	5.0	4.8	5.8
	Females	9.4	6.0	3.9	4.8	6.4
Germany	Males	12.8	5.4	3.9	3.6	7.4
	Females	6.4	3.7	4.7	3.8	5.9
Greece	Males	5.6	4.4	4.6	3.6	4.3
	Females	8.8	7.8	8.4	7.0	6.6
Hungary	Males	6.2	2.7	a	1.0	4.0
	Females	3.1	2.3	a	1.5	2.7
Iceland	Males	3.0	2.7	2.8	1.2	2.3
	Females	2.7	2.5	1.0	1.7	2.3
Ireland	Males	4.0	2.8	2.3	1.9	3.3
	Females	2.5	2.0	1.4	1.1	1.9
Italy	Males	5.2	4.1	X (4)	3.3	4.5
	Females	6.1	5.6	X (4)	5.9	5.4
Japan	Males	6.8	5.1	4.3	3.1	4.8
	Females	2.6	3.2	3.1	2.7	3.0
Korea	Males	2.7	2.8	4.2	2.6	2.8
	Females	1.0	1.1	1.9	1.1	1.1
Luxembourg	Males	1.1	1.0	3.6	0.8	1.4
	Females	3.4	0.4	n	2.3	1.8
Mexico	Males	1.5	a	2.1	1.1	2.2
	Females	0.5	a	0.2	0.1	1.2
Netherlands	Males	2.4	1.6	1.1	1.9	1.9
	Females	2.2	2.1	1.7	2.0	2.1
New Zealand	Males	4.7	3.2	3.3	3.0	3.2
	Females	3.0	2.1	2.7	2.4	2.9
Norway	Males	2.4	3.0	1.5	2.2	2.5
	Females	2.1	2.0	2.1	1.7	2.0
Poland	Males	17.1	10.2	X (4)	5.1	13.5
	Females	11.2	12.0	X (4)	6.1	12.3
Portugal	Males	3.6	3.5	4.5	1.8	3.1
	Females	5.0	4.0	2.8	4.8	3.8

		Lower secondary education	Upper secondary education (ISCED 3A)	Tertiary-type B education	Tertiary-type A and advanced research programs	All levels of education
		(1)	(2)	(3)	(4)	(5)
Slovak Republic	Males	28.8	8.2	6.3	3.1	12.9
	Females	16.0	8.5	5.3	3.1	11.2
Spain	Males	6.5	5.0	4.7	4.7	5.8
	Females	10.1	8.6	10.4	8.4	8.3
Sweden	Males	4.5	4.5	3.3	3.2	4.0
	Females	3.9	3.3	2.4	2.1	3.1
Switzerland	Males	4.6	1.5	1.0	2.3	2.0
	Females	2.7	2.1	0.9	2.9	2.3
Turkey	Males	7.4	6.1	X (4)	5.7	7.3
	Females	3.1	5.2	X (4)	6.5	2.3
United Kingdom	Males	6.8	3.1	2.6	2.5	3.8
	Females	3.2	2.4	1.5	1.8	2.7
United States	Males	7.9	5.3	3.8	2.8	4.7
	Females	5.5	3.7	2.5	2.1	3.3
Country mean	**Males**	**6.9**	**4.1**	**3.5**	**2.9**	**4.6**
	Females	**5.1**	**4.1**	**3.0**	**3.3**	**4.1**

Note: X indicates that data are included in another column. The column reference is shown in brackets after X, e.g. X (2) means that data are included in column 2.
n = data value nil.
a = category not applicable.

Source: OECD (2004), table A10.1b

Table 21: Main reasons for not undertaking study and training, 2001

	Number of persons ('000s)																			
	15–19	20–24	25–34	35–44	45–54	55–64	**Total males**	15–19	20–24	25–34	35–44	45–54	55–64	**Total females**	15–19	20–24	25–34	35–44	45–54	55–64	**Total persons**
Barriers to study																					
Did not study although wanted to:																					
Work-related reasons																					
Too much work	7.0	22.2	79.2	67.5	46.8	9.3	**232.1**	8.3	17.7	35.5	30.5	22.6	8.5	**123.2**	15.4	40.0	114.7	98.0	69.4	17.8	**355.3**
Other work-related reasons	4.2	13.5	22.0	19.8	12.3	9.1	**80.9**	1.0	4.8	15.8	7.8	12.3	4.2	**46.0**	5.2	18.3	37.8	27.6	24.6	13.3	**126.9**
Course or qualification-related reasons	20.2	23.8	31.4	25.0	14.9	6.9	**122.2**	22.2	18.4	27.4	28.3	15.4	6.3	**118.0**	42.4	42.2	58.9	53.3	30.3	13.1	**240.1**
Personal or family reasons																					
Caring for family members	n/a	0.6	10.8	9.1	3.1	1.4	**25.0**	1.4	25.7	79.4	81.1	23.2	8.9	**219.7**	1.4	26.3	90.3	90.2	26.3	10.3	**244.7**
Personal or other family reasons	6.7	8.4	24.5	32.4	19.1	9.9	**101.0**	7.2	15.1	43.7	42.5	29.4	11.2	**149.0**	13.9	23.5	68.2	74.9	48.5	21.1	**250.0**
Other reasons																					
No time	4.2	37.0	91.3	81.1	48.4	16.8	**278.9**	10.8	36.0	60.0	62.4	44.7	10.8	**224.8**	15.1	73.0	151.3	143.5	93.1	27.6	**503.6**
Financial reasons	13.7	35.0	81.6	53.2	37.2	11.2	**232.0**	19.5	43.4	91.8	71.3	48.0	12.7	**286.6**	33.2	78.4	173.4	124.5	85.2	23.9	**518.6**
Other reasons	15.2	22.1	29.8	28.5	14.9	6.3	**117.0**	11.1	28.0	26.5	30.9	18.9	14.7	**130.3**	26.4	50.2	56.4	59.4	33.8	21.1	**247.2**
Did not want to study	245.5	520.7	1070.1	1139.7	1118.4	828.8	**4923.2**	218.7	475.3	1062.5	1116.0	1095.0	806.5	**4774.0**	464.2	996.0	2132.6	2255.7	2213.4	1635.3	**9697.2**
Total	316.9	683.3	1440.8	1456.3	1315.1	899.6	**6112.1**	300.3	664.5	1442.7	1470.8	1309.5	883.8	**6071.5**	617.2	1347.8	2883.5	2927.2	2624.6	1783.4	**12183.7**

Table 21: Main reasons for not undertaking study and training, 2001 (cont.)

	Number of persons ('000s)																			
	15–19	20–24	25–34	35–44	45–54	55–64	**Total males**	15–19	20–24	25–34	35–44	45–54	55–64	**Total females**	15–19	20–24	25–34	35–44	45–54	55–64	**Total persons**
Barriers to training																					
Did not train although wanted to:																					
Work-related reasons																					
Too much work	7.8	22.7	99.3	112.5	77.4	20.5	**340.4**	2.7	21.5	58.2	48.8	48.8	18.5	**198.5**	10.5	44.2	157.6	161.3	126.3	39.0	**538.9**
Lack of employer support	5.6	25.9	70.7	62.9	35.2	9.8	**210.1**	3.8	17.6	45.1	35.3	38.7	5.5	**146.0**	9.5	43.5	115.7	98.3	73.9	15.2	**356.1**
Other work-related reasons	3.9	15.0	17.8	15.3	16.6	7.5	**76.2**	5.6	7.9	13.2	9.8	11.9	3.6	**52.0**	9.5	22.9	31.0	25.2	28.5	11.1	**128.1**
Course or qualification-related reasons	8.7	24.1	50.1	47.2	29.2	13.7	**173.1**	10.6	17.5	50.6	36.7	29.6	9.8	**154.9**	19.4	41.6	100.7	84.0	58.8	23.5	**328.0**
Personal or family reasons																					
Caring for family members	n/a	0.6	3.1	5.2	5.0	1.3	**15.2**	1.4	18.9	56.8	70.6	15.8	6.9	**170.4**	1.4	19.5	59.8	75.8	20.8	8.2	**185.5**
Personal or other family reasons	4.3	8.6	27.6	27.8	13.9	9.8	**92.0**	4.4	12.0	29.1	38.2	29.9	11.1	**124.6**	8.7	20.6	56.7	66.0	43.8	20.9	**216.6**
Other reasons																					
No time	5.9	32.0	76.6	77.3	61.6	21.5	**274.9**	12.7	32.1	60.6	63.7	48.0	13.2	**230.4**	18.6	64.1	137.2	141.0	109.6	34.7	**505.3**
Financial reasons	8.1	32.5	50.3	42.5	42.2	12.4	**188.0**	8.6	28.4	56.9	61.6	43.2	16.1	**214.8**	16.7	61.0	107.2	104.1	85.4	28.4	**402.9**
Other reasons	13.2	12.5	35.8	36.3	21.9	7.8	**127.5**	13.2	20.7	34.2	29.9	27.3	17.4	**142.8**	26.4	33.2	70.0	66.3	49.2	25.2	**270.3**
Did not want to do training	259.4	509.4	1009.4	1029.1	1012.0	795.3	**4614.8**	237.2	487.8	1038.0	1076.1	1016.4	781.7	**4637.3**	496.6	997.2	2047.5	2105.2	2028.5	1577.0	**9252.1**
Total	316.9	683.3	1440.8	1456.3	1315.1	899.6	**6112.1**	300.3	664.5	1442.7	1470.8	1309.5	883.8	**6071.5**	617.2	1347.8	2883.5	2927.2	2624.6	1783.4	**12183.7**

Table 21: Main reasons for not undertaking study and training, 2001 (cont.)

	Percentage of responses																			
	15–19	20–24	25–34	35–44	45–54	55–64	**Total males**	15–19	20–24	25–34	35–44	45–54	55–64	**Total females**	15–19	20–24	25–34	35–44	45–54	55–64	**Total persons**
Barriers to study																					
Did not study although wanted to:	22.5	23.8	25.7	21.7	15.0	7.9	**19.5**	27.1	28.5	26.3	24.1	16.4	8.7	**21.4**	24.8	26.1	26.0	22.9	15.7	8.3	**20.4**
Work-related reasons																					
Too much work	9.8	13.7	21.4	21.3	23.8	13.1	**19.5**	10.2	9.4	9.3	8.6	10.5	11.0	**9.5**	10.1	11.4	15.3	14.6	16.9	12.0	**14.3**
Other work-related reasons	5.9	8.3	5.9	6.3	6.3	12.8	**6.8**	1.2	2.5	4.2	2.2	5.7	5.4	**3.5**	3.4	5.2	5.0	4.1	6.0	9.0	**5.1**
Course or qualification-related reasons	28.4	14.6	8.5	7.9	7.6	9.7	**10.3**	27.2	9.7	7.2	8.0	7.2	8.2	**9.1**	27.7	12.0	7.8	7.9	7.4	8.8	**9.7**
Personal or family reasons																					
Caring for family members	0.0	0.4	2.9	2.9	1.6	2.0	**2.1**	1.7	13.6	20.9	22.9	10.8	11.5	**16.9**	0.9	7.5	12.0	13.4	6.4	7.0	**9.8**
Personal or other family reasons	9.4	5.2	6.6	10.2	9.7	14.0	**8.5**	8.8	8.0	11.5	12.0	13.7	14.5	**11.5**	9.1	6.7	9.1	11.2	11.8	14.2	**10.1**
Other reasons																					
No time	5.9	22.8	24.6	25.6	24.6	23.7	**23.5**	13.3	19.0	15.8	17.6	20.8	14.0	**17.3**	9.9	20.7	20.1	21.4	22.6	18.6	**20.3**
Financial reasons	19.2	21.5	22.0	16.8	18.9	15.8	**19.5**	23.9	23.0	24.2	20.1	22.4	16.4	**22.1**	21.7	22.3	23.1	18.5	20.7	16.1	**20.9**
Other reasons	21.3	13.6	8.0	9.0	7.6	8.9	**9.8**	13.6	14.8	7.0	8.7	8.8	19.0	**10.0**	17.3	14.3	7.5	8.8	8.2	14.2	**9.9**
Did not want to study	77.5	76.2	74.3	78.3	85.0	92.1	**80.5**	72.8	71.5	73.6	75.9	83.6	91.3	**78.6**	75.2	73.9	74.0	77.1	84.3	91.7	**79.6**

Table 21: Main reasons for not undertaking study and training, 2001 (cont.)

	Percentage of responses																			
	15–19	20–24	25–34	35–44	45–54	55–64	**Total males**	15–19	20–24	25–34	35–44	45–54	55–64	**Total females**	15–19	20–24	25–34	35–44	45–54	55–64	**Total persons**
Barriers to training																					
Did not train although wanted to:	18.1	25.5	29.9	29.3	23.0	11.6	**24.5**	21.0	26.6	28.1	26.8	22.4	11.6	**23.6**	19.6	26.0	29.0	28.1	22.7	11.6	**24.1**
Work-related reasons																					
Too much work	13.6	13.1	23.0	26.3	25.5	19.7	**22.7**	4.3	12.2	14.4	12.4	16.6	18.1	**13.8**	8.7	12.6	18.9	19.5	21.2	18.9	**18.4**
Lack of employer support	9.7	14.9	16.4	14.7	11.6	9.4	**14.0**	6.0	10.0	11.1	8.9	13.2	5.4	**10.2**	7.9	12.4	13.8	12.0	12.4	7.4	**12.1**
Other work-related reasons	6.8	8.6	4.1	3.6	5.5	7.2	**5.1**	8.9	4.5	3.3	2.5	4.1	3.5	**3.6**	7.9	6.5	3.7	3.1	4.8	5.4	**4.4**
Course or qualification-related reasons	15.1	13.9	11.6	11.1	9.6	13.1	**11.6**	16.8	9.9	12.5	9.3	10.1	9.6	**10.8**	16.1	11.9	12.0	10.2	9.9	11.4	**11.2**
Personal or family reasons																					
Caring for family members	0.0	0.3	0.7	1.2	1.7	1.2	**1.0**	2.2	10.7	14.0	17.9	5.4	6.8	**11.9**	1.2	5.6	7.2	9.2	3.5	4.0	**6.3**
Personal or other family reasons	7.5	4.9	6.4	6.5	4.6	9.4	**6.1**	7.0	6.8	7.2	9.7	10.2	10.9	**8.7**	7.2	5.9	6.8	8.0	7.3	10.1	**7.4**
Other reasons																					
No time	10.3	18.4	17.8	18.1	20.3	20.6	**18.4**	20.2	18.2	15.0	16.1	16.4	12.9	**16.1**	15.4	18.3	16.4	17.2	18.4	16.8	**17.2**
Financial reasons	14.1	18.7	11.7	10.0	13.9	11.9	**12.6**	13.7	16.1	14.1	15.6	14.7	15.8	**15.0**	13.8	17.4	12.8	12.7	14.3	13.8	**13.7**
Other reasons	23.0	7.2	8.3	8.5	7.2	7.5	**8.5**	21.0	11.7	8.5	7.6	9.3	17.0	**10.0**	21.9	9.5	8.4	8.1	8.3	12.2	**9.2**
Did not want to do training	81.9	74.5	70.1	70.7	77.0	88.4	**75.5**	79.0	73.4	71.9	73.2	77.6	88.4	**76.4**	80.5	74.0	71.0	71.9	77.3	88.4	**75.9**

Source: ABS (2002)

National Centre for Vocational Education Research

Financing vocational education and training, as part of Australia's commitment to lifelong learning, will become a greater challenge as increased spending on other public services, such as health and welfare caused by an ageing population, constrains government education expenditure.

This report examines a range of mechanisms to encourage individual contributions to and participation in vocational education, drawing on international examples, and presents available findings about the effectiveness of these mechanisms in the Australian context. The research suggests learning accounts and paid educational leave offer the most potential. Mechanisms must offer incentives for individuals to invest, preferably in conjunction with incentives for employers, such as taxation breaks and superannuation.

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