



Adult, Community and  
Further Education

# The Economic Benefit of Investment in Adult Community Education in Victoria

February 2008

Report to the Department of Planning and Community Development and the Adult,  
Community and Further Education Board



Department of Planning  
and Community Development

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## Abbreviations

ACE	Adult and Community Education
ACFE Board	The Adult, Community and Further Education Board
AMES	Adult Multicultural Education Services
AVETMISS	Australian Vocational Education and Training Management Information Statistical Standard
CAE	Council of Adult Education
CALD	Culturally and Linguistically Diverse
COAG	Council of Australian Governments
FTE	Full-Time Equivalent
GDP	Gross Domestic Product
GSP	Gross State Product
GVT	Growing Victoria Together
HILDA	Household, Income and Labour Dynamics in Australia Survey
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NCLC	Narre Community Learning Centre
OECD	Organisation for Economic Cooperation and Development
SCH	Student Contact Hours
VCE	Victorian Certificate of Education
VCAL	Victorian Certificate of Applied Learning
VET	Vocational Education and Training

## Glossary

<i>ACE-type study</i>	educational studies that are equivalent or similar to ACE, including certificate level qualifications. In many cases, ACE modules may contribute towards certificate-level qualifications.
<i>Discounting</i>	placing a lower value on future credits than on present credits of an equal sum. The ‘discount rate’ is the rate at which future credits are discounted to find their present value.
<i>Market benefits</i>	benefits that are traded in the market economy.
<i>Merit good</i>	a good considered to be socially desirable, irrespective of individual preferences to consume this good. The provision of merit goods are typically subsidised by governments.
<i>Net present value</i>	the present value of an investment, calculated by discounting all present and future credits and debits at an appropriate discount rate.
<i>Non-market benefits</i>	benefits that are not traded in the market economy.

## Executive Summary

This study describes and quantifies the economic benefits resulting from adult and community education (ACE) in Victoria. This analysis is provided to assist the Victorian Government to evaluate the contribution of ACE to the achievement of policy objectives and to the economies of local communities, regions and Victoria as a whole.

### **Victoria's ACE sector**

ACE refers to 'organised adult learning in community settings' (Clemans et al. 2003). ACE is defined by its centrality of community focus, which distinguishes it from other education sectors. In Victoria, ACE providers are considered to be those providers that are community-owned and managed and not-for-profit (Volkoff & Walstab 2007, p. 7).

Victoria's ACE sector is one of the largest and most active in Australia — the sector supports 384 ACE providers, training around 130 000 learners in more than 700 locations across the state each year (Office of Training and Further Education n.d.). In 2006, total reported provision of courses by community-based ACE providers and adult education institutions in Victoria from all funding sources reached nearly 11 million student contact hours.

ACE is characterised by its wide accessibility to learners, providing courses that are generally low cost (relative to more formal educational alternatives), have no or limited pre-requisites, and are delivered through a network of community-based providers. While these attributes position ACE as being accessible to the entire community, ACE particularly appeals to learners whose needs may not be met by more formal educational institutions. One of the strengths of ACE is its capacity to engage the most educationally (and often, socially) disadvantaged learners, and be truly flexible and responsive to the needs of the community. The broad geographic spread of ACE providers makes learning accessible to a large number of Victorians, particularly those in regional areas.

### **The role for government**

In Australia, all three tiers of government fund ACE providers to varying degrees, with state governments contributing the majority of public funding to the sector. Public funding to the sector reflects the range of economic and social benefits that flow from ACE activities.

The Victorian Government funds ACE through the Adult, Community and Further Education Board (ACFE Board). The ACFE Board provides funding to registered ACE providers for programs that target priority learning groups, such as people with low levels of prior education and specific disadvantaged groups.

From a policy perspective, the importance of ACE has been recognised at the highest levels of government, and formalised through national statements such as the Ministerial Declaration on Adult Community Education. ACE represents one important mechanism through which the objectives of the Council of Australian Government’s Human Capital stream of the National Reform Agenda can be progressed. Within Victoria, ACE has a vital role in achieving the Victorian Government’s policy objectives relating to education and training, as well as those relating to community strengthening, regional development, civic participation and a range of social policy imperatives. In this regard, ACE directly supports the priorities of *Growing Victoria Together* and *A Fairer Victoria*.

**Study findings: the economic benefit of ACE in Victoria**

The total economic benefit of ACE in Victoria comprises two components, namely:

- *market benefits* — benefits that are traded in the market economy; and
- *non-market benefits* — benefits that are not traded in the market economy, such as benefits to the health and wellbeing of ACE participants.

Within each of these benefit categories, benefits can be further categorised as *private*, accruing to those individuals participating in ACE, or *public*, those externalities (or ‘spillover benefits’) experienced by the wider community. Table ES1 below outlines specific examples of the components of human capital that are developed through ACE participation, organised into these classifications. The key findings of the study relating to each of these benefit areas are discussed below.

Table ES1

**COMPONENTS OF HUMAN CAPITAL DEVELOPMENT ATTRIBUTABLE TO ACE**

Benefit	Private	Public
<b>Market benefits</b>	<ul style="list-style-type: none"> <li>• Increased productivity, leading to increased wages from paid employment</li> <li>• Stepping stone to higher education that then leads to market benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Productivity spillovers — more educated workers are able to increase the productivity of colleagues</li> </ul>
<b>Non-market benefits</b>	<ul style="list-style-type: none"> <li>• Health and wellbeing</li> <li>• Enjoyment of the ACE environment</li> <li>• More efficient household management</li> <li>• Other benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Social capital</li> <li>• Volunteerism and giving</li> <li>• Decreased crime</li> <li>• Intergenerational benefits</li> <li>• Other benefits</li> </ul>

Source: The Allen Consulting Group.

**Market benefits**

The market benefits of ACE result from the additional productivity of Victorians who have increased their human capital by participating in ACE studies. This additional productivity may be reflected in individuals being able to enter the labour force as a consequence of ACE, or increased production among those individuals already in the labour force.

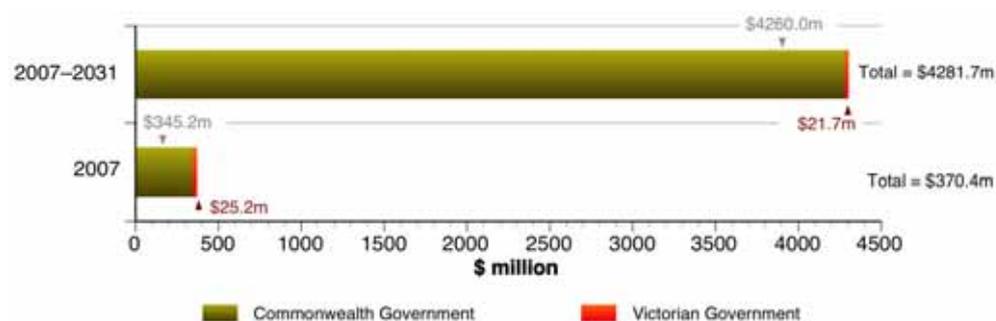
Key findings concerning the market benefits resulting from ACE participation over the period 2007 to 2031 include:

- *Individual income* — ACE-type study increased the income of individuals by varying amounts depending on age and gender, with annual wage income premiums as a result of ACE study of \$8316–\$12 829 for males, and \$1336–\$2205 for females. The annual value of wage income attributable to ACE completions from 2007–2031, is estimated to grow from \$30 million in 2007 to \$819 million in 2031, with a net present value of increased income over this period of \$7.5 billion;
- *Labour force transitions* — an analysis of the labour market outcomes for those individuals who undertook ACE study, compared with those who have below ACE-type qualifications, illustrates the potential of ACE to assist participants enter and transition within the labour force:
  - among females reported as being unemployed in 2004, 63 per cent of those females who undertook ACE study were in either full or part-time employment in 2006, compared to 52 per cent among those women with less than ACE-level education;
  - for females who were not in the labour force in 2004, 37.6 per cent were in employment in 2006 among those women who undertook ACE study, compared to 11.3 per cent among women with less than ACE-level education, and who were not participating in the labour force in 2001;
  - the effect of ACE upon labour market transitions was found to be less significant among males;
- *Gross State Product (GSP)* — as a consequence the net present value of additional GSP attributable to ACE over the period 2007 to 2031 is estimated to be \$16 billion. Furthermore, it is estimated that ACE study over the period 2007 to 2031 will contribute \$955 million to Victorian GSP in 2031, up from a contribution of \$124 million in 2007 and \$621 million in 2017.

The fiscal implications of the ACE sector include a net present value of Victorian Government expenditure on ACE, and taxation revenue generated on the basis of increased GSP in the 25-year period 2007 to 2031, estimated to be \$21.7 million.

The Commonwealth Government is also expected to benefit significantly from Victoria's expenditure on ACE. For every dollar the Victorian Government collects in taxation, the Commonwealth Government collects almost six dollars. Over the period 2007 to 2031, the Commonwealth Government is expected to collect taxation revenues resulting from Victorian ACE activity with a net present value of \$4.26 billion. This is shown in Figure ES1.

Figure ES1

**FISCAL IMPACTS OF ACE INVESTMENT IN VICTORIA**

Source: ACG analysis

Furthermore, study in Victoria's ACE sector in 2007 alone is expected to generate \$345 million in taxation revenues to the Commonwealth Government over the following 25 years.

The Commonwealth Government is also expected to benefit from the Victorian Government's expenditure on ACE through ACE participants having lower levels of unemployment and welfare dependency, however there is insufficient data to calculate a robust estimate.

***Non-market benefits***

While non-market benefits are not as readily quantifiable, they are real and substantial, and should not be overlooked when estimating the value of ACE in Victoria.

A range of non-market benefits can accrue to learners engaging in all forms of education, with a similarly broad range of benefits resulting from initiatives that promote greater social inclusion and connectedness (Putnam 1993). Those non-market benefits identified in the literature that are likely to be particularly relevant to ACE learners — given the sector's structure, courses, pedagogies and ethos — include:

- improved personal health and wellbeing, such as reduced drinking and smoking, lower rates of obesity, improved mental health, and increased longevity (McMahon 2006; OECD 2001; Wolfe & Haveman 2001);
- enjoyment of the ACE environment, which participants often report as being informal and supportive (Bowman 2006; Clemans et al. 2003);
- more efficient household management (McMahon 1998; Wolfe & Haveman 2001); and
- other private non-market benefits.

Non-market benefits accruing to the wider community as a result of ACE participation include:

- increased social capital, as ACE providers are recognised as fostering community wellbeing (Falk et al. 2000; Golding 2006; Townsend 2006);
- volunteerism and giving, with ACE participants recording higher rates of volunteerism after completing ACE programs (Walstab et al. 2005);
- decreased crime, as ACE builds social capital through promoting volunteerism, civic participation and informal socialising (Graycar 1999; OECD 2001);
- intergenerational benefits, as an individual's educational attainment is a key determinant of a range of outcomes for their children (McMahon 1998; Wolfe & Haveman 2001); and
- other public non-market benefits.

The social and non-market effects of education have been estimated to be equal to or larger than the market effects (Wolfe & Haveman 2001; McMahon 2004). For the ACE sector specifically, the non-market benefits it causes are likely to be particularly significant given the range of outcomes to which the sector contributes beyond economic and employment outcomes, such as personal wellbeing and community participation.

In summary, market benefits are estimated to amount to an increase in GSP of \$16 billion, and positive fiscal benefits to the Victorian Government of \$21.7 million over the period 2007 to 2031 in net present value terms, with non-market benefits of at least a similar magnitude. These benefits are achieved relative to a Victorian Government investment of \$741 million over twenty-five years (in discounted terms).

## Chapter 1

# The role of adult and community education

*This chapter outlines the ACE sector in terms of the organisations that provide ACE services, the funding arrangements associated with ACE providers, the types of programs delivered and the learners who participate in education through this sector.*

### Key points

- *ACE providers in Victoria are community owned and managed and operate on a not-for-profit basis. The focus on local community is central to the ACE sector.*
- *ACE has particular appeal for those whose learning needs may not be met by more formal educational institutions.*
- *ACE providers receive funding from various private sources and government funding from local, State and Commonwealth governments.*

### 1.1 Adult and community education defined

Adult and community education (ACE<sup>1</sup>) can be defined as ‘organised adult learning in community settings’ (Clemans et al. 2003). ACE encompasses a range of courses, which:

...fall outside, but complement, the formal programs and qualification pathways provided by the school, VET and higher education sectors. ACE focuses on the provision of learning opportunities at a community level...(ABS 2006).

Other definitions of ACE articulate further characteristics relating to curricula, learners, settings and relationships with other education sectors. ACE has been described as having a number of *defining characteristics*, which include:

- *focus* — a central focus on learners and their needs;
- *provision* — by community-owned or -managed providers;
- *learning ethos* — a common set of adult or community learning principles;
- *course type* — including short courses, personal enrichment courses, and adult basic education;
- *educational practice* — drawing on characteristics of informality, access, student support, and flexibility of content; and
- *community centric* — learning embedded and provided in a community context, potentially benefiting the community as well as the individual (Golding et al. cited in Birch et al. 2003).

These defining characteristics reflect the centrality of local community focus that underpins the ACE sector. It is arguably this consistent focus at the local community level that distinguishes the ACE sector from other education sectors, and underpins its social and economic contribution.

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<sup>1</sup> In much of the international literature, ACE is also used as an acronym for ‘adult continuing education’, which is analogous to adult and community education as it is defined in this paper.

Appreciation of the role played by the ACE sector, including its social and economic contribution, requires an understanding of the nature of ACE providers, the programs and services they deliver, and the learners who access these programs and services.

## **1.2 ACE providers**

In Victoria, ACE providers are considered to be those providers that are community-owned and managed and not-for-profit (Volkoff & Walstab 2007, p. 7). ACE providers include the two major government-owned adult education institutions — Adult Multicultural Education Services (AMES) and the Council of Adult Education (CAE) — and those registered ACE organisations funded by the ACE Board to deliver programs. Given that ACE providers develop to meet the learning needs of adults within their communities, the characteristics of ACE providers are as diverse as the communities they serve.

ACE providers pursue a range of outcomes, at organisational, learner and community levels. The specific outcomes pursued reflect both the focus and capacity of each individual organisation. In addition, the education and training priorities of government — as a significant funding provider to the sector — serve to influence ACE programs, students and outcomes. Within Australia more broadly, the COAG Human Capital Agenda — which aims to raise vocational skills and improve workforce participation — establishes focus areas for governments and education and training providers. The emphasis governments are placing reflects on vocational education — ACE plays an important part in helping to deliver these policy objectives.

ACE providers vary considerably in size and scope. ACE providers may have minimal revenue, be run primarily by volunteers with a sole paid, part-time coordinator, and deliver a very limited number of programs. Others have multi-million dollar revenue streams, are significant employers in their communities and deliver a wide variety of programs and services such as employment related, vocational and personal development courses, youth services and retail outlets that provide employment opportunities for disadvantaged members of their communities. The programs and services that ACE providers deliver continuously change to reflect the needs of their communities.

## **1.3 ACE funding**

ACE providers receive funding from a range of public and private sources. Public funding may be sourced through a variety of government programs and from various levels of government. Private sector funding includes funding from individuals, businesses, civic organisations, sponsors and donors.

In general:

- literacy programs are funded by governments, with individuals also contributing towards the costs;
- civic and development education may be funded by civic society, government, and philanthropic organisations;

- career and vocational training is often supported by government (particularly when retraining the unemployed or disadvantaged learners) and businesses (for job-specific training); and
- individual learners invest in all types of ACE, particularly leisure and development education (Fretwell & Colombano 2000).

The socially inclusive objectives that characterise many ACE providers influence the funding arrangements adopted for basic education and vocational skills for certain disadvantaged social groups, with providers reducing or waiving fees to enable access for those who may benefit most from participating in the programs.

The role and objectives of ACE point to a legitimate role for both public and private funding contributions:

Although individuals and/or employers often bear the financial costs of ACE, there is recognition of the need for investment of some public funds to support ACE programs in literacy and foundation education and for some categories of clients to ensure access and promote equity objectives (Fretwell & Colombano 2000).

#### **1.4 ACE programs**

The learning programs offered by ACE providers are tailored to the needs of their local communities. As community needs and interests have changed over time, ACE programs have responded to meet them. As an example, many ACE providers offer recognised VET programs in addition to personal interest and development programs in response to shifts in community attitudes towards vocational outcomes (Bowman 2006, p. 5). ACE plays an increasingly important role as a ‘transition platform’ to further, formal education, such as VET or higher education.

Similarly, ACE providers may enhance their offerings to meet changing community needs, such as providing a craft shop through which items made during craft courses can be sold, simultaneously providing opportunities for community members to gain retail experience.

ACE programs can be classified into various categories. Victoria’s approach to classifying ACE programs is set out in Box 1.1.

Box 1.1

**CLASSIFYING ACE PROGRAMS**

The Adult, Community and Further Education (ACFE) Board classifies ACE programs according to the following five categories:

- *Adult literacy and numeracy* — incorporating English as a Second Language (ESL), literacy, numeracy and basic education courses. These programs assist learners returning to education, those seeking entry to other forms of education and training, and those with a language background other than English who are seeking to improve their English language skills;
- *VCE/VCAL* — Victorian Certificate of Education (VCE) and the Victorian Certificate of Applied Learning (VCAL);
- *Employment skills* — aimed at giving learners essential skills to enter the workforce, or improve their employment skills more generally;
- *Vocational* — provide learners with specific skills either to enter or return to the workforce or work in particular industries and occupations; and
- *Enrichment* — programs aimed at meeting learner's personal development and special interest needs. In Victoria, the ACFE Board does not provide funding for programs of this nature.

Sources: ACFE Board 2007b; ACFE Board 2006.

**1.5 ACE learners**

One of ACE's distinguishing characteristics is its wide accessibility to learners. ACE courses are generally low cost (relative to more formal educational alternatives), have no or limited pre-requisites, and are delivered through a network of community-based providers.

While these attributes position ACE as being accessible to the entire community, ACE particularly appeals to learners whose needs may not be met by more formal educational institutions. One of the strengths of ACE is its capacity to engage the most educationally (and often, socially) disadvantaged learners, including: older workers, unemployed people, those not in the labour force, people with a disability, people with incomplete schooling, 'at-risk' young people, those in small rural communities, and people with Indigenous and culturally and linguistically diverse (CALD) backgrounds (Volkoff & Walstab 2007, p. 28).

'Typical' ACE learners have been described as being people who (Kosky 2002):

- want to improve their basic English language and numeracy;
- need basic education to obtain a job or further education;
- want training to start work, or go back to work, or change jobs, or keep their job;
- want to do personal interest courses or other enrichment programs in a local community;
- prefer to learn in the smaller, more intimate environment of a local centre; or
- want to be part of a learning community.

By engaging these learners, ACE organisations fulfil a number of important roles that provide significant social and economic benefits to the communities in which they operate.

## Chapter 2

# Why governments fund ACE in Victoria

*This chapter explores why governments fund ACE by examining the role of ACE providers, the nature and extent of benefits associated with ACE activities, in particular describing the contribution made by Victorian ACE providers to achieving Victorian Government policy objectives.*

### **Key points**

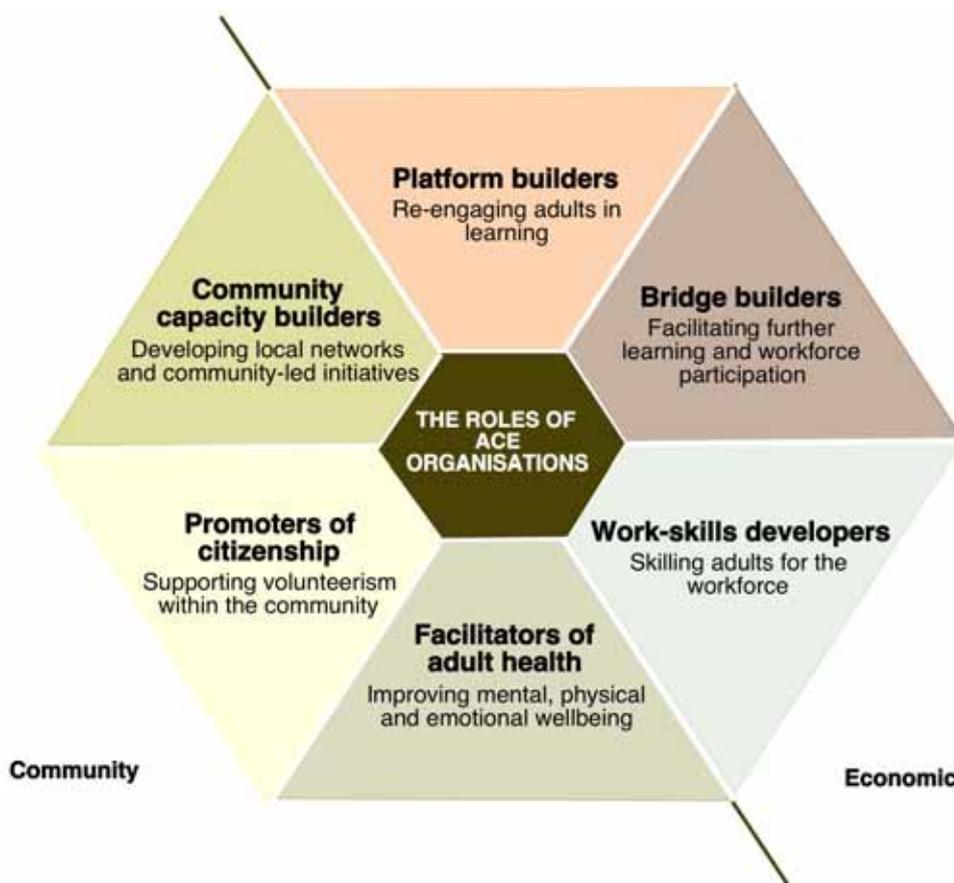
- *ACE gives rise to a diverse range of economic and social benefits.*
- *ACE can be viewed as a ‘merit good’ - without government funding individuals are likely to undertake less ACE study than is socially desirable, despite the significant benefits that flow to them as a consequence of such study.*
- *ACE directly supports the aims of the Human Capital stream of the Council of Australian Governments’ National Reform Agenda.*
- *ACE plays an important role in achieving the Victorian Government’s policy objectives relating to education, training, community strengthening, regional development and civic participation.*

### **2.1 The role of ACE providers**

Governments provide funding to the ACE sector to generate the range of economic and social benefits that flow from ACE activities. These benefits are associated with the various roles that ACE providers play.

ACE providers have been described as performing six important roles that contribute to the development of their local communities (Bowman 2006). These roles are illustrated in Figure 2.1.

Figure 2.1

**THE ROLES OF ACE ORGANISATIONS**

Source: adapted from Bowman 2006.

Through fulfilment of these roles, ACE makes vital contributions to the economy and the community. These roles, and the contribution they make to economic and community development, are described below. Specific examples of the roles that ACE providers serve are discussed in Appendix A, which presents case studies of two ACE providers in Victoria.

### ***Role of ACE – contributing to economic development***

The major contribution to economic development made by ACE providers is through improving workforce skills and participation rates. These contributions flow from the following roles played by ACE providers:

- *Platform builders* — ACE providers have demonstrated success in re-engaging adults with learning, particularly among those groups that are unemployed or not participating in the workforce. Learning is often a transition step to employment, as ACE offers a relaxed environment in which to develop basic education and skills, with many providers also delivering employment advocacy and career advice services. As platform builders, ACE providers play an important part in developing the economy's human capital;

- *Bridge builders* into further education and paid work — longitudinal studies of ACE learners (Birch et al. 2003; Walstab et al. 2005) demonstrate the high capacity of ACE providers to engage adults in learning, and then connect them to further education and/or paid employment. An Organisation for Economic Co-operation and Development (OECD) study of continuing education among adults in ten member countries (O’Connell 1999) found that an individual’s employment status and level of educational attainment were important determinants of participation in continuing adult education. Those who are employed, and who have high levels of educational attainment, are a great deal more likely to participate in continuing education, and do so for a longer duration. As a result, the study observes that ‘current patterns of education and training are thus likely to exacerbate rather than mitigate labour market inequalities and processes of social exclusion.’ ACE, as an accessible entry point for adult learners, can potentially bridge learners into a virtuous cycle of educational attainment and improved employment prospects, with corresponding economic benefits to the individual and to society;
- *Work–skills developers* — many ACE providers offer vocational training across the spectrum of VET qualifications and fields of study that reflect community demands. ACE providers also develop more generic skills that enhance the employability of adult learners. The economic benefits that flow to the individual are clear, as many jobs require VET qualifications and provide increased salaries when higher certification levels are attained. The interests of business are also served, as they are able to access more highly trained employees, leading to greater economic contribution from business.

### ***Role of ACE – contributing to community development***

ACE providers contribute to community development in the following ways:

- *Facilitators of adult health* — improving mental, physical and emotional wellbeing — ACE has been shown to improve mental and physical health and wellbeing by engaging adults in a range of productive pursuits, many of whom may be socially marginalised. A study of adults returning to learning in the United Kingdom (NIACE 2007) found that 89 per cent of learners reported that returning to learning had a positive impact on their mental health, while 87 per cent reported positive physical health outcomes;
- *Promoters of citizenship* — contributing to social cohesion and unity by promoting and facilitating volunteerism in community activities. ACE providers encourage volunteerism within their organisations. They offer a wide range of volunteering opportunities ranging from board membership, to tutoring of English as a second language (ESL) students, and assisting with maintaining ACE provider gardens. Evidence indicates that graduating students are more likely to become volunteers within their communities; and

- *Community capacity builders* — facilitating local networks and community-led developments, which is aligned with current government policies that advocate self help. ACE providers develop local networks of organisations and people, building community resources and local leadership skills. Many ACE providers offer a range of community services in addition to general education, such as youth programs and employment services, and provide an important contact point for referrals to other services, resulting in greater utilisation of these services.

As noted previously, ACE holds a particular appeal to groups within the community that may not access more formal educational institutions, highlighting the significant and differentiated role played by ACE.

In Australia, many of the learning needs of the socially disadvantaged are not met by large well funded formal institutions such as universities and technical colleges, but by community-based learning providers — neighbourhood houses, community education colleges, community groups and local libraries — places that may be considered ‘informal’ learning venues (Cross 2004).

The role of ACE can be further targeted to assist learners adapt to different stages of life, using education to transition into life as a wage earner and member of society during adulthood, and in later life when entering retirement. Across these stages of life, experience and research shows that the methods of delivering these skills to individuals at different stages of life must vary if they are to be effective.

In the absence of government funding for ACE, it is likely that many people would be deterred from undertaking ACE, to the detriment of themselves and the community at large. For this reason ACE, together with other forms of education such as schooling, is considered to be a ‘merit good’ – without public funding individuals would undertake less schooling or ACE study than is considered socially desirable. Accordingly, despite the significant private returns from merit goods such as education, it is appropriate that government subsidises their provision. In many cases ACE is either providing the equivalent of Year 12 completion, or enhancing the skills of early school leavers, such that the rationale for government funding for schooling also applies to many aspects of ACE.

## **2.2 The nature and extent of benefits**

The previous discussion identified that ACE delivers a range of benefits, which are experienced by both individuals and communities. This section develops a more comprehensive profile of the nature of these benefits, and introduces estimates of their magnitudes relative to costs.

Clemens et al. (2003) identify the outcomes achieved by ACE, conceptualised in terms of those outcomes that benefit individuals (comprising of private, public and work domains), communities and local economies. These outcomes are set out in Table 2.1 and Table 2.2.

Table 2.1

**ADULT AND COMMUNITY EDUCATION OUTCOMES — INDIVIDUALS**

Individual outcomes — changing people		
In the private domain of family, friends and personal interests	In the public domain of citizenship, community participation and debate	In work domain of both paid and unpaid
<ul style="list-style-type: none"> <li>• Emotional wellbeing</li> <li>• Physical wellbeing</li> <li>• Spiritual peace, maturity and achieving a sense of belonging</li> <li>• Cognitive development</li> <li>• Communication skills</li> <li>• Enhanced personal relationships</li> <li>• Home sustainability</li> <li>• Creative abilities</li> <li>• Literacy and language</li> <li>• Expanded personal choices and pathways</li> <li>• Mastery of recreational skills</li> </ul>	<ul style="list-style-type: none"> <li>• Social connections</li> <li>• Cross-cultural knowledge and sensitivity</li> <li>• Contributions to organisational capacity</li> <li>• Individual involvement in the community</li> <li>• Knowledge of community and government services</li> </ul>	<ul style="list-style-type: none"> <li>• Skills towards and for employability</li> <li>• Self-sufficiency</li> <li>• Expanded pathways to work</li> <li>• Income generation</li> <li>• Professional development</li> </ul>

Source: Clemens et al. cited in Adult Learning Australia 2006, p. 14.

Table 2.2

**ADULT AND COMMUNITY EDUCATION OUTCOMES — COMMUNITIES AND ECONOMIES**

Changing communities domain	Changing local economies domain
<ul style="list-style-type: none"> <li>• Connecting people to each other</li> <li>• Harnessing existing and new skills towards community building</li> <li>• Active citizenship in local communities</li> <li>• Community activism</li> <li>• Organisational synergies, connections and partnerships</li> <li>• Cultural contributions</li> <li>• Building and sharing community resources</li> <li>• Generation of new community groups</li> <li>• Enhanced community identity</li> <li>• Empowerment of specific communities</li> <li>• Community appreciation of and respect for diversity</li> </ul>	<ul style="list-style-type: none"> <li>• Productive enterprises</li> <li>• Increased number and capacity of small businesses</li> <li>• Employment advocacy, referral and placement</li> <li>• Microeconomic development</li> <li>• Manufacture and creation of goods and services for sale</li> <li>• Savings in health costs</li> <li>• Savings due to greater personal and organisational self-sufficiency</li> </ul>

Source: Clemens et al. cited in Adult Learning Australia 2006, p. 14.

The outcomes for individuals, communities and economies associated with ACE highlight the cascading nature of benefits that flow from ACE activities. The linkages between outcomes at these levels are obvious for vocationally oriented ACE programs. For example, if individuals improve their vocational skills they are more likely to gain employment or be in a position to command higher wages. Employers are better off as they have access to more highly skilled employees and can therefore operate more effectively. The community is strengthened as it is served by more effective organisations. The benefits to the community are compounded when individuals move from being unemployed to being employed, as they go from receiving public funds through social benefit payments, to contributing to public funds through the taxation system.

A similar cascading of benefits holds for programs that improve literacy and numeracy. In such cases, the flow on effects may also have an intergenerational community benefit if, for example, parents are better able to engage in dialogue with their children's schools.

Similarly, as education is linked to improvements in participants' health and wellbeing, engagement in education including self improvement courses may lead to improvements in health and corresponding decreases in demand for public spending on healthcare. The purely non-monetary effects of education in terms of better health of individuals, their spouses and their children, have been estimated to amount to 40 per cent of the improvements education has on earnings (Grossman & Kaestner 1997).

### ***Quantifying the benefits***

ACE contributes to community welfare and capacity by promoting active citizenship, volunteerism, and a more informed electorate (Adult Learning Australia 2006; Comings et al. 2000). In economic terms, ACE develops the stock of human capital, increasing the number of skilled workers and workforce participation rates, as well as potentially increasing labour productivity.

Within the broader context of education, an OECD review (2001, p. 35) of research studies suggests that the social impacts of learning — including benefits to health, reduced crime, and greater social cohesion — could be as large, as the impacts on economic productivity, or even larger.

Within Australia, there are currently more than one million adults undertaking some form of study in the ACE sector (Department of Education, Science and Training 2003). While there is a limited literature available that quantifies the impacts of ACE to these learners, their communities and economies, Birch et al. (2003) provide an exploratory estimate of the economic and social impacts of the sector. The study estimates that the ACE sector in Australia had an aggregate net economic impact of \$3.3 billion annually, comprised of a net community impact of \$828 million and a private net vocational impact of \$2.48 billion.<sup>2</sup>

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<sup>2</sup> The findings of this study are presented to provide an estimate of the scale of costs and benefits resulting from Australia's ACE sector. The study adopts an alternative methodology and treatment of costs and benefits to that which is used in the Allen Consulting Group's analysis of Victoria's ACE sector.

### 2.3 The policy context

In Australia, all three tiers of government fund ACE providers to varying degrees, with state governments contributing the majority of public funding to the sector. The different tiers of government may have slightly different, though complementary, policy objectives they pursue through the ACE sector.

#### *National policy*

Nationally, the importance of ACE has been recognised at the highest levels of government, and formalised through statements such as the Ministerial Declaration on Adult Community Education (see Box 2.1).

Box 2.1

#### **THE MINISTERIAL DECLARATION ON ADULT COMMUNITY EDUCATION**

The Ministerial Declaration on Adult Community Education endorsed by the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) is testament to the importance of ACE as a driver of innovation and economic and social progress.

ACE is particularly focussed on addressing the 'knowledge gaps' that separate those adults with high levels of educational attainment from those not as effective at accessing learning resources. Such persons may be poor, disabled, have low levels of literacy and numeracy, have a non-English speaking or Indigenous background, or be geographically or socially isolated. Such knowledge gaps also extend to many older people, who may not have had the same learning opportunities as younger people.

To become engaged in ongoing learning, these adults require flexible learning solutions relevant to their life circumstances. All adults need to acquire and maintain skills and knowledge to manage and influence the transitions they face throughout their lives.

ACE is providing community-based solutions to these challenges. These solutions — based on partnerships within communities and government — harness the potential of community organisations, social and educational institutions and workplaces to create innovative learning resources and opportunities.

In 2002, MCEETYA established four goals to guide the development of ACE in Australia. These goals are to:

- expand and sustain innovative community based learning models;
- raise awareness and understanding of the role and importance of adult community education;
- improve the quality of adult community education learning experiences and outcomes; and
- extend participation in community based learning.

Sources: The Ministerial Council on Education, Employment, Training and Youth Affairs 2002; Adult Learning Australia 2006.

MCEETYA is currently revising these goals and further integrating ACE into the Human Capital stream of the National Reform Agenda of the Council of Australian Governments, which aims to ensure all adults have the skills and qualifications to enjoy productive lives.

The agenda places a particular emphasis on raising the skills of the existing workforce, as well as expanding workforce participation among target groups where participation has lagged, such as the long term unemployed, mature aged people and women.

This agenda has specific implications for the ACE sector:

Thus, there is a clear and emphatic focus on ‘continuous and lifelong learning’ to provide people with the capacities to participate in the workforce and also to do so more effectively. There is clearly a strong role for ACE here. ACE can (and already does) play an important compensatory role in addressing the needs of both young and mature aged early school leavers, particularly those with inadequate levels of literacy and numeracy, in gaining these core skills and completing a secondary school certificate or vocational equivalent. It also prioritises provision of training focussed on improving employability skills and specific vocational skills...

ACE has a role here both in delivery, particularly of entry-level training and in effective pathways information, guidance and preparation. There is a challenge for ACE in working more collaboratively with enterprises to ascertain needs for upgrading the existing skills of workers, identifying future skill needs and shortages and more closely connecting training with work, particularly for unemployed people (Volkoff & Walstab 2007, p. 5).

Commonwealth Government funding for ACE providers is generally only available to group training companies and not-for-profit job network providers. Some ACE providers are eligible to participate in competitive funding processes, such as those used for VET-specific government funding allocations. Some ACE providers also access specific purpose funds from other social services government portfolios (Bowman 2006).

### ***Victorian policy***

*Growing Victoria Together* (GVT) is the policy that sets out the Victorian Government’s economic, social, and environmental objectives and declares education and lifelong learning as one of the Government’s three main goals. ACE has a vital role in achieving the Victorian Government’s policy objectives relating to education and training, as well as those relating to community strengthening, regional development, civic participation and a range of social policy imperatives.

Table 2.3 highlights the avenues through which ACE providers support GVT, namely through: implementing GVT goals, progressing GVT targets, and addressing other GVT challenges and strategic issues.

Table 2.3

**ACE ORGANISATIONS SUPPORTING GROWING VICTORIA TOGETHER**

Implementing GVT goals	Progressing GVT targets	Addressing other GVT challenges and strategic issues
<ul style="list-style-type: none"> <li>Improving participation and achievement in education and training</li> </ul>	<ul style="list-style-type: none"> <li>By 2010, 90 per cent of young people successfully completing Year 12 or its equivalent</li> </ul>	<ul style="list-style-type: none"> <li>Building cohesive communities and reducing inequalities</li> </ul>
<ul style="list-style-type: none"> <li>Providing better links between education providers, business and communities</li> </ul>	<ul style="list-style-type: none"> <li>By 2005, a 6 per cent increase in the percentage of young people aged 15 to 19 in rural and regional Victoria who are doing education and training</li> </ul>	<ul style="list-style-type: none"> <li>Promoting the sustainability of our environments, communities and industries</li> </ul>
<ul style="list-style-type: none"> <li>Expanding opportunities for training and learning all through life</li> </ul>	<ul style="list-style-type: none"> <li>The proportion of Victorians learning new skills will increase</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening rural, regional and urban communities</li> <li>Reconciliation between Indigenous and non-Indigenous Victorians</li> <li>Promoting rights and respecting diversity</li> <li>Planning for the needs of our changing population at all stages of life</li> <li>Improving confidence and participation in democratic decision-making</li> </ul>

Source: Kosky, L 2004.

*A Fairer Victoria* — the Victorian Government's social policy action plan — emphasises a number of priorities, most notably creating opportunity and reducing disadvantage, that are consistent with the recognised benefits of the ACE sector.

The Victorian Government invests in community-based adult education through the strategies identified in the Ministerial Statement on ACE: *Future Directions for Adult Community Education in Victoria* (ACFE Board 2006b). Other key policies relating to ACE include: *Future Directions for Adult Community Education in Victoria*, *Knowledge and Skills for the Innovation Economy*, and *Maintaining the Advantage: Skilled Victorians*. The following sections discuss the relevance of these policies in terms of shaping activities and strategies in the ACE sector in Victoria.

#### *Future Directions for Adult Community Education in Victoria*

*Future Directions for Adult Community Education in Victoria* sets out key strategies for the ACE sector in Victoria. These include:

- Broadening the role of ACE* — such as through community learning partnerships, which link together relevant community organisations to the delivery of learning outcomes;

- *Recognising the role of specific groups of learners* — prioritising areas, groups and individuals who need better access to adult education and training, to improve the sector's responsiveness to diversity across the state. Key learner groups include: those learners who wish to gain basic skills or who have no previous educational qualifications, Koories, men aged over forty-five, people with a disability, people from culturally and linguistically diverse backgrounds, young people aged fifteen and over, and people aged over 55;
- *Enhancing the sustainability of adult community education provision* — assisting community-based adult education institutions to adopt practices necessary to be viable and sustainable in the long term; and
- *Investment in adult community education* — increasing total investment in adult community education through funding and in-kind support, fee-for-service activity and participation in government community programs (Kosky 2004).

#### *Knowledge and Skills for the Innovation Economy*

*Knowledge and Skills for the Innovation Economy* is the Victorian Government's policy and strategy document for vocational education and training. While the focus is on the contribution of TAFE institutions, registered training organisations, CAE and AMES, there are several roles for ACE within this context. These include:

- building closer linkages between VET — which has close ties with industry — and ACE, schools and universities;
- improving linkages between VET and ACE at the provider level;
- using ACE and VET as a passage for people to return to formal education and work; and
- to support Victoria's drive to become an innovation economy, ACE — by using formal and informal learning strategies, and personal and social development models of learning — is important to cultivating innovation and creativity in the economy (Kosky 2002).

#### *Maintaining the Advantage: Skilled Victorians*

*Maintaining the Advantage: Skilled Victorians* emphasises the importance of effective education and training for the success of individuals, the economy, and the community. ACE providers have a clear role in contributing to the priority actions of *Maintaining the Advantage: Skilled Victorians* through:

- improving participation and achievement in education and training, by assisting people with low levels of educational attainment to re-enter structured learning;
- providing better links between education providers, business and communities, by involving people in learning for work and citizenship; and
- expanding opportunities for training and learning throughout all stages of life (State of Victoria 2006).

### ***Local government policy***

Local government priorities vary widely depending on the needs of their municipalities. Local governments support ACE providers in various ways such as providing premises at discounted rents, allowing ACE employees to access local government training courses and providing grants for specific purposes.

### ***Conclusion***

The legitimacy of the broad range of roles played by ACE organisations is being acknowledged:

ACE is increasingly recognized...as playing a key role in development and maintenance of civil societies, development of the workforce, as making a positive contribution to overall economic development, and as an integral part of the process of lifelong learning (Fretwell & Colombano 2000).

This legitimacy reinforces that it is appropriate for ACE funding to flow from both public and private sources.

## Chapter 3

# ACE in Victoria

*This chapter describes the ACE sector in Victoria including the funding arrangements in place, the nature of providers and their workforce, programs offered, learners engaged, pathways to employment and ACE pedagogies.*

### Key points

- *The Victorian Government investment in ACE is based on enrolment and qualification figures for programs that target priority learning groups including people with low levels of prior education.*
- *In 2006, the Victorian Government was the leading source of ACE funding providing for over 7 million student contact hours and over 202 000 module enrolments.*
- *Victoria's 384 ACE providers are spread widely across the State making learning accessible to a large number of people.*
- *Many ACE learners reported that ACE study provided benefits relevant to their work or if unemployed, provided benefits that helped them to get a job.*

Victoria's ACE sector is one of the largest and most active in Australia — the sector supports 384 ACE providers, training around 130 000 learners<sup>3</sup> in more than 700 locations across the state each year (Office of Training and Further Education n.d.).

In 2006, total reported provision of courses by community-based ACE providers and adult education institutions in Victoria from all funding sources (including fee-for-service) reached nearly 11 million student contact hours. For these services, government was the leading source of funding, providing for over 7 million student contact hours and over 202 000 module enrolments in 2006 (ACFE Board 2007).<sup>4</sup>

### 3.1 ACE funding in Victoria

The Victorian Government funds ACE through the ACFE Board, which provides funding to registered, community-based not for profit organisations (ACE providers), and two publicly owned adult education institutions, the CAE and AMES.

The Victorian Government invests in ACE based on enrolment and qualification figures for programs that target priority learning groups, such as people with low levels of prior education and specific disadvantaged groups. This emphasis was reflected in the Ministerial Statement: *Future Directions for Adult Community Education in Victoria* (Kosky 2004):

<sup>3</sup> This figure includes government funded and fee-for-service learners.

<sup>4</sup> In addition to funding ACE providers, the Victorian Government, through the Office of Training and Tertiary Education, funds TAFEs and eligible private providers to deliver programs such as literacy, numeracy and employment-related skills.

We will prioritise areas, groups and individuals that need better access to adult education and training. Those learners who wish to gain basic skills or who have no previous educational qualifications will continue to be a priority. We will invest accordingly.

The ACFE Board provides funding for certain ACE programs, which are: adult literacy and numeracy; employment skills; VCE and VCAL; and vocational programs. The ACFE Board does not fund enrichment programs. Box 3.1 sets out the ACFE Board's arrangements for disbursing recurrent funding to ACE providers.

Box 3.1

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**ACFE BOARD RECURRENT FUNDING GRANTS**

The ACFE Board funds ACE providers through three recurrent funding grants, which are:

- *Delivery* — ACFE Board funding for the delivery of programs is based on state-wide average price per student contact hour, with the expectation that all students — excepting for cases of extreme hardship — should contribute towards the cost of their education;
- *Delivery Support Grant* — provided to strengthen organisational capacity and capability to deliver programs; and
- *Fee concessions* — funds are provided to those eligible ACE providers that deliver programs to learners with valid concessions, acknowledging those fees forgone by the provider.

Source: ACFE Board 2007c.

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The ACFE Board also manages the development of Crown Copyright Further Education curriculum, providing for those education programs that lead to the development of knowledge and skills that are not specific to any particular occupation (*The Education and Training Reform Act 2006*). Government investment in this suite of entry-level courses ensures that ACE providers have a ready facility to attract and support adult learners who may not have gained Year 12 or equivalent and need initial assistance to participate in further study, the workforce and their community.

This curriculum is used by ACE, alongside the complementary suite of Crown Copyright General Education courses managed by the Office of Training and Tertiary Education, to provide a unique alternative adult learning pathway from pre-accredited programs<sup>5</sup> through to Diploma level. Adults enter and exit according to their individual needs as they access further study and employment opportunities.

In addition to the recurrent funding grants provided by the ACFE Board, Commonwealth Equipment Grants are available to ACE providers on a semi-ongoing basis. These grants provide funding towards: equipment or furniture; communication and computer equipment to support flexible training delivery; and administrative equipment to support the management and reporting of Australian Vocational Education and Training Management Information Statistical Standard (AVETMISS) compliant data.

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<sup>5</sup> Pre-accredited delivery is the provision of modularised, customised education and training programs developed at a local level to meet the needs of individual learners who have little experience or no recent experience of education and training, and who may therefore lack the confidence and skills to readily engage with nationally accredited programs. Pre-accredited training is the precursor to accredited delivery in ACE, especially in locations where there are no other adult education providers from other sectors.

On a non-recurrent basis, the Victorian Government also invests in the ACE ‘platform’, in terms of capital works, ICT infrastructure and equipment, and the capacity of ACE organisations, staff and volunteers. The Victorian Government, through the Community Support Fund, provided one-off infrastructure funding to ACE providers, subject to certain co-contribution levels being met. Between 2001 and 2003, this program invested \$9 million of ACE capital funding, leveraging total infrastructure projects valued at \$25 million.

Other programs offered by ACE providers attract funding from other areas of government, community, industry and private sources.

### 3.2 ACE providers in Victoria

In Victoria, registered ACE organisations are ‘not-for-profit, community-based organisations that are able to demonstrate that adult education and training is a key focus of their business’ (ACFE Board 2006b). Community-based ACE providers are independent organisations, governed by volunteer boards of management and able to appoint their own staff.

Box 3.2 sets out the requirements for registering as an ACE provider in Victoria. Registration is required for those ACE providers seeking to obtain ACFE Board funding.

Box 3.2

#### REGISTERING AS AN ACE ORGANISATION IN VICTORIA

Registered ACE organisations are required to meet certain quality criteria. Organisations are registered for up to three years. Registration as an ACE organisation with the ACFE Board is a necessary, but not sufficient, condition to receive ACFE Board funding.

The registration of ACE organisations is managed by the nine Regional Councils of the ACFE Board, which consider, assess and determine registration applications on behalf of the ACFE Board. On behalf of the Victorian Government, the ACFE Board has annual Performance Agreements with the nine Regional Councils of ACFE. These Agreements identify the ACFE Board’s priorities for community-based adult education and training.

To meet these priorities, the ACFE Regional Councils through Funding and Service Agreements, contract registered ACE organisations to deliver education and training programs and services to their local communities.

Organisations wishing to be registered with the ACFE Board as an ACE organisation must demonstrate that it meets criteria pertaining to:

- *Education* — education is identified as a key function of the organisation, and it has the capacity to provide quality adult education programs that satisfy Victorian Government priorities;
- *Community* — ACE organisations need to engage with, and be controlled by, members of their community, and provide programs that are accessible to the general community; and
- *Business and governance* — ACE organisations are required to be incorporated in Victoria as community-owned and -managed not-for-profit incorporated association or company, and have certain governance policies and procedures to ensure appropriate conduct of business.

A number of types of organisations are ineligible to become registered ACE organisations, including commercial organisations for private profit.

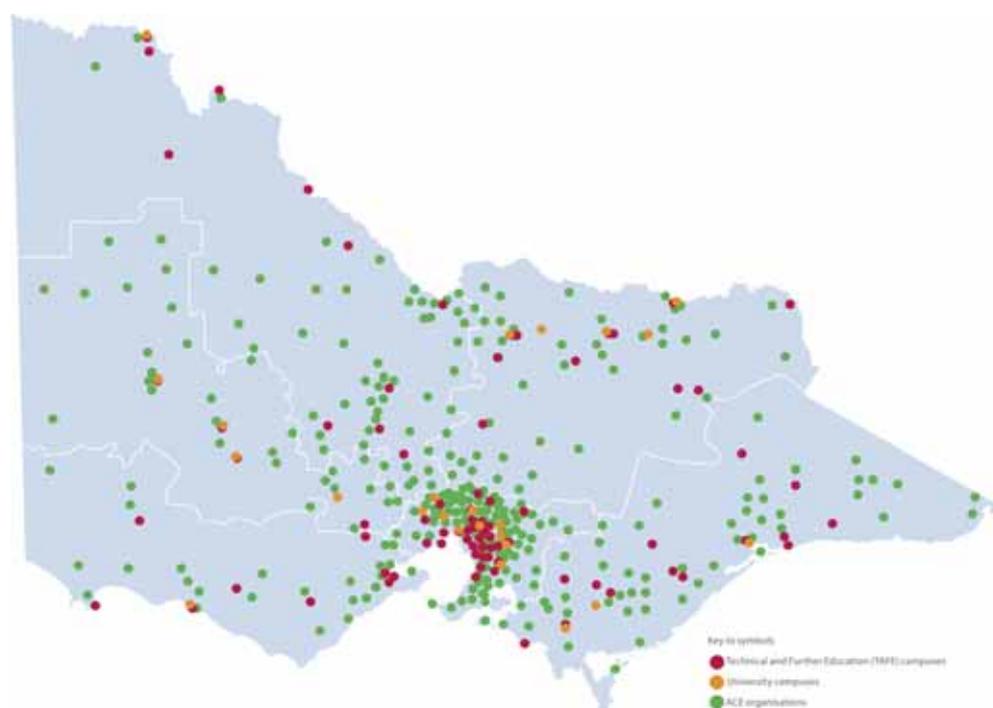
Source: ACFE Board 2006b.

Within Victoria, there were 384 registered ACE providers in 2006, of which 186 were Registered Training Organisations (RTOs). There are two major government-owned institutions that are significant ACE providers, namely the CAE and AMES. The sector is characterised as having a ‘long tail’ of small providers offering ACE programs in local communities (Volkoff & Walstab 2007, p. 27), which enables providers to be truly flexible and responsive to the needs of the community. Figure 3.1 illustrates the widespread presence of ACE providers across Victoria — TAFEs and universities are also represented for comparative purposes. The broad geographic spread of ACE providers makes learning accessible to a large number of Victorians.

Depending on demand, in some instances ACE providers deliver services beyond the local government area and ACFE region within which they are located.

Figure 3.1

### ACE PROVIDERS IN VICTORIA



Source: ACFE Board 2007.

### 3.3 ACE workforce in Victoria

One of the distinguishing features of the ACE sector relative to other education sectors is the extensive involvement of volunteers in many ACE providers (Harris et al. cited in Bowman 2006).

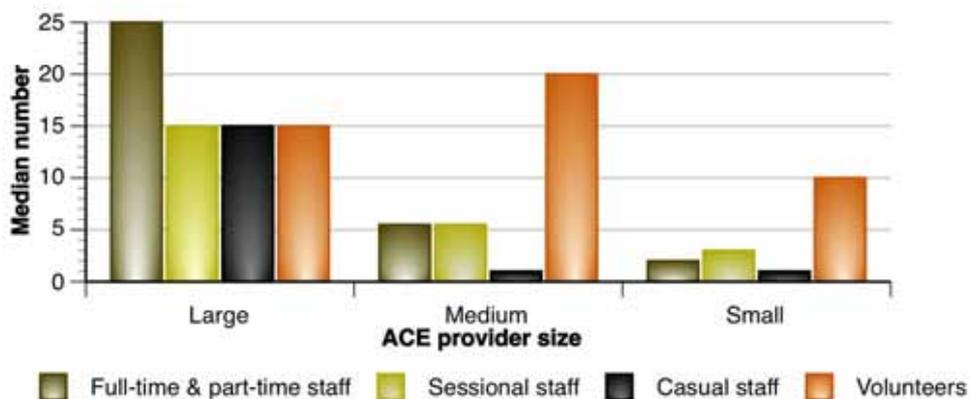
A workforce profile of ACE providers (CWCC cited in Volkoff & Walstab 2007) reported that 91 per cent of ACE providers had volunteers. In particular, small and medium ACE providers (those with an annual turnover of less than \$100 000, or between \$100 000–\$500 000) were more reliant on volunteers than large providers (those with an annual turnover in excess of \$500 000). Across Victoria, it is estimated that there could be as many as 16 000 volunteers assisting ACE providers.

ACE providers are also significant employers in their own right. It is estimated that Victorian ACE providers have 6000 sessional staff appointments<sup>6</sup>, and employ around 1800 casual staff.

Figure 3.2 profiles the workforce composition of ACE providers by size.

Figure 3.2

**WORKFORCE COMPOSITION**



Source: CWCC cited in Volkoff & Walstab 2007, p. 27.

**3.4 ACE programs in Victoria**

In 2006, total reported provision by ACE providers was 368 608 module enrolments, with a total of 10.9 million student contact hours. The programs being studied by ACE learners in Victoria are set out in Table 3.1.

Table 3.1

**PROGRAMS STUDIED BY ACE LEARNERS IN VICTORIA**

ACE program category	Proportion of student contact hours (per cent)
Adult literacy and numeracy	24
Employment skills	12
VCE / VCAL	3
Vocational	41
Enrichment	20

Source: Volkoff & Walstab 2007.

Table 3.2 sets out the distribution of government funded provision in ACE providers across ACE program categories in 2006.

<sup>6</sup> This figure refers to sessional appointments, rather than individuals employed. Persons employed on a sessional basis may work for more than one ACE provider.

Table 3.2

**GOVERNMENT-FUNDED PROVISION IN ACE PROVIDERS BY PROGRAM CATEGORY, 2006**

ACE program category	Module enrolments (per cent)	Student contact hours (per cent)
Adult literacy and numeracy	18.25	31.05
Employment skills	19.26	16.63
VCE / VCAL	2.36	5.36
Vocational	60.12	46.96

Source: ACFE Board 2006.

**3.5 ACE learners in Victoria**

In 2006, the ACFE Board funded over 49 000 learners, or approximately 38 per cent of total activity reported by ACE providers (ACFE Board 2007). ACFE Board funding reached a relatively greater proportion of learners in regional areas than those living in metropolitan areas — 47 per cent of the ACE learners lived in non-metropolitan regions, whereas around 27 per cent of Victoria's population lives in non-metropolitan regions (ACFE Board 2007).

In line with State Government priorities in 2006, 41 percent of ACFE Board funded learners had low basic skills (less than Year 12 or equivalent). Of these learners with low basic skills, 36 per cent had a previous schooling level of Year 9 or less. In addition, it is evident that ACE learners do use ACE as a platform for further education — 74 per cent of those studying a Certificate 1 or below in 2004 progressed to a Certificate II or above in 2005 (ACFE Board 2007).

**3.6 ACE and work in Victoria**

A recent study of ACE learners (Walstab 2007), found that among those who were employed, many reported benefits of their ACE study for their employment:

- 73 per cent said that their study helped with tasks they do at work;
- 61 per cent said it taught them skills to help them get a better job;
- 47 per cent said that it helped them to get a job, and
- 26 per cent said that their study helped them to set up or run a business.

Among those ACE learners who were unemployed in 2005, by 2006:

- 68 per cent reported that their study had taught them skills to help them get a job; and
- 58 per cent said that their study had helped them to get a job.

These figures support the notion that ACE plays an important role in building human capital in a manner that is accessible to some of the least educated Victorians, supporting the development of generic employment skills and specific vocational skills. As noted by a research report into ACE pedagogies in Victoria:

ACE teachers or practitioners draw on a wide range of strategies, approaches and pedagogies to foster and nurture generic skills development. These skills and approaches are intrinsic to and connect with the cultures that characterise ACE centres, ACE environments, and ACE places: what we have called, ‘the pedagogies of pACE’ (Sanguinetti et al. 2004, p. 6).

### **3.7 ACE pedagogical approach in Victoria**

A key strength of ACE teaching and learning environments is the flexibility to tailor activities to meet the particular needs and interests of learners. Critical to this is ACE’s combination of a learner-centred pedagogical approach within supportive, community-based learning environments (Sanguinetti et al. 2004). This approach distinguishes ACE from other more formalised educational institutions, and provides adult learners with alternative learning pathways.

Victoria’s ACE pedagogical framework is set out in Table 3.1. The framework was developed in conjunction with ACE teachers, and highlights the importance of the local, place-based nature of the ACE sector. The framework aligns five ACE pedagogical principles with four pedagogical dimensions, which are:

- *the teacher* — the personal, social and attitudinal characteristics of ACE teachers;
- *the teaching* — the practices, approaches, methods, strategies and purposes;
- *the place* — the geographical, social and institutional contexts of ACE; and
- *the curriculum* — the content, purposes and approaches to assessment (Sanguinetti et al. 2004).

Table 3.1

**VICTORIA'S ACE PEDAGOGICAL FRAMEWORK**

Principles of ACE pedagogy	Dimensions of ACE pedagogy			
	Teacher	Teaching	Place	Curriculum
<b>Focus on learners and their needs</b>	Is engaged with learners and their learning on a personal level	Is developmental (starting from where learners are at and consciously helping them to progress)	Embodies collective values: commitment to education, to community service and to the ACE sector itself	Prioritises learner needs through creative assessment for accredited curricula
<b>Continuous learning for work and life</b>	Is reflective and open about their own practice and professional learning journey	Is largely (but not exclusively) experiential	Is a strongly networked community of teaching and learning practice	Is oriented towards generic skills for employment, life and further study
<b>Building learning on and within real-life contexts</b>	Is able to improvise and take risks	Fosters skills of critical literacy	Is community-owned and is engaged in community building locally	Is contextualised (in terms of local, community and individual issues, interests and needs)
<b>Sharing power — empowering people and communities</b>	Is aware of relations of power	Includes various strategies to empower learners	Is led by management committed to enabling learning processes and staff needs	Is negotiated wherever possible (i.e. learner respected as key player and partner in the learning)
<b>Many roads to learning</b>	Is patient and able to put trust in the learning process	Is multi-layered and eclectic	Creates a sense of belonging	Opens pathways through accredited, non-accredited and enrichment programs

Source: Sanguinetti et al. 2004.

## Chapter 4

# Market benefits of ACE

*This chapter estimates the economic contribution made by ACE to Victoria.<sup>7</sup> This contribution is made from the additional production at work of Victorians who have increased their human capital through undertaking ACE studies.*

*The chapter has three components. The first component provides an overview of the concept of human capital, with particular reference to ACE. The second component estimates the value of the human capital expected to be developed by ACE in Victoria over the next 25 years. The final component estimates the fiscal implications, for both the Victorian and Commonwealth Governments, of the increase in human capital attributable to ACE.*

### Key points

- *ACE has a substantial effect on both labour force participation and productivity rates.*
- *The additional GSP attributable to ACE in the 25 year period 2007 - 2031 is estimated to be \$16.6 billion (discounted in constant 2007-2008 dollar terms).*
- *The combined value of the Victorian Government's investment in ACE and taxation revenue generated on the basis of the increase in GSP in the period 2007 - 2031 is estimated to be \$21.7 million (discounted in constant 2007-2008 dollar terms).*
- *Over the period 2007 - 2031, it is estimated that the Commonwealth Government will collect tax revenue of \$4.26 billion (discounted in constant 2007-2008 dollar terms) arising from increased incomes associated with completion of ACE study.*

## 4.1 What is human capital?

### Overview

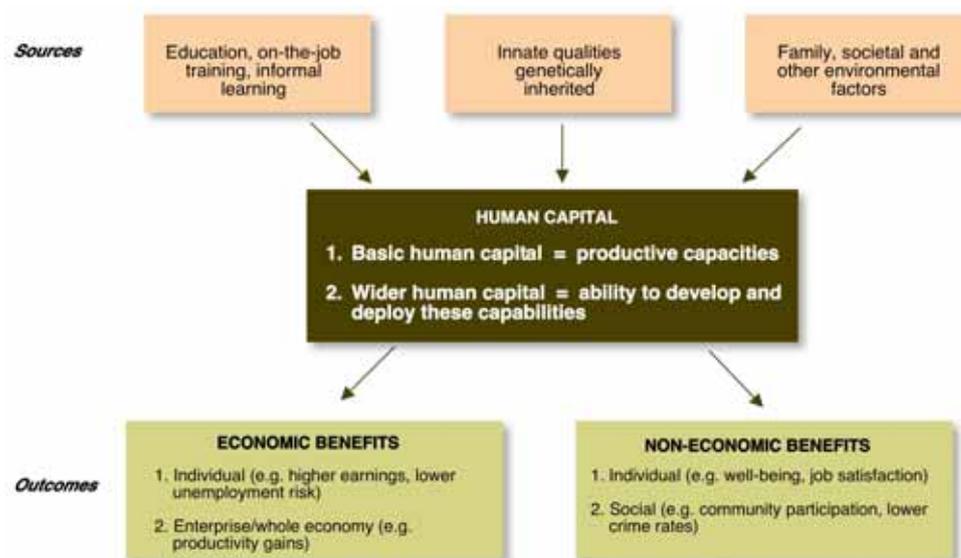
The concept of human capital is a natural extension to that of physical capital. Physical capital, such as a factory, has a value through being a source of both current and future flows of income and wealth (Rosen 1989). So too does human capital, with the early work by Nobel prize winner Gary Becker in the 1960s defining human capital as the skills, knowledge and health instilled in an individual that is able to generate a financial return through employment and increased wages (Becker 1993). Human capital does not just include skills or wage earning ability; human capital also includes the ability to make better decisions about one's life in general.

<sup>7</sup>

The analysis reported in this chapter uses unit record data from the Household, Income and Labour Dynamics in Australia (HILDA) Survey. The HILDA Project was initiated and is funded by the Australian Government Department of Families, Housing, Community Services and Indigenous Affairs (FaHCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this chapter, however, are those of the authors and should not be attributed to either FaHCSIA or the MIAESR.

There are a number of sources of human capital. Formal education, innate qualities, and family and societal environment interact with each other to form human capital, which is represented through the increased productive capacity of individuals. The outcomes of human capital comprise both economic and non-economic benefits (also referred to as market, and non-market or social benefits respectively). Figure 4.1 below provides a high level overview of human capital, comprising its sources, aspects and outcomes.

Figure 4.1

**HUMAN CAPITAL: SOURCES, ASPECTS AND OUTCOMES**

Source: OECD 2002, p. 120.

A key facet of human capital theory is that governments or students do not make human capital investments simply through allocating money or time to attending ACE courses. Rather, education only increases an individual's human capital to the extent that the study generates a future return. This is an important distinction — governments or students may *finance* ACE, however a human capital investment is only made insofar as the person receiving the education is able to obtain a future return from that education. If the future return is low, it can be said that only a small human capital investment has been made. Put another way, a government or individual could spend a great deal of money on ACE, but only end up making a small investment in human capital.

### **Components of human capital**

The early economics research in this field saw human capital as providing an alternative explanation to human ability when examining differences in individual earnings. Furthermore, this research took the approach that *acquired* human capital was able to explain labour market outcomes such as wages and income inequality.

The definition of human capital has evolved to encompass not just skills and knowledge generating a financial return through increased wages, but to also include personal and social welfare. This broader definition is reflected in an OECD perspective on human capital:

The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (OECD 2002).

With this broader definition of human capital now in common use, it is appropriate to disaggregate human capital into a number of components. This disaggregation distinguishes between market and non-market benefits, and between benefits that accrue to the individual who has undertaken the human capital development (private benefits), and benefits that accrue to others (public benefits). Table 4.1 provides this breakdown, with a number of examples of market and non-market benefits reported, allocated between private and public benefits.

Table 4.1

**COMPONENTS OF HUMAN CAPITAL DEVELOPMENT ATTRIBUTABLE TO ACE**

Benefit	Private	Public
<b>Market benefits</b>	<ul style="list-style-type: none"> <li>• Increased productivity, leading to increased wages from paid employment</li> <li>• Stepping stone to higher education that then leads to market benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Productivity spillovers — more educated workers are able to increase the productivity of colleagues</li> </ul>
<b>Non-market benefits</b>	<ul style="list-style-type: none"> <li>• Health and wellbeing</li> <li>• Enjoyment of the ACE environment</li> <li>• More efficient household management</li> <li>• Other benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Social capital</li> <li>• Volunteerism and giving</li> <li>• Decreased crime</li> <li>• Intergenerational benefits</li> <li>• Other benefits</li> </ul>

Source: Allen Consulting Group.

Market benefits are those benefits that are ‘traded’ in the market economy and reflected in economic measures such as GDP (e.g. increased labour force participation and labour productivity). A further market benefit associated with ACE is the ‘stepping stone’ effect — ACE study is able to lead to further education (such as TAFE or university) which then leads to market benefits.

Non-market benefits are those benefits attributable to human capital investment, which are not traded in the market economy. Public non-market benefits are the externalities (or ‘spillover’ benefits) experienced by the wider community. Private non-market benefits are those benefits not traded in the market economy, but are accrued by the individual who made the human capital investment. Examples include improved health and wellbeing, and the value of knowledge not rewarded in the market economy.

Labour market returns associated with human capital investment are mostly a private benefit — much of the financial benefit goes to the individual who is working. However, there are also significant public returns from increasing human capital, including reduced levels of crime, the effects of increased earnings and taxes that finance the health care and education of others, and even the ability of voters to make better decisions at the ballot box (McMahon 2006; Moretti 2005).

### ***Literature on the market benefits of ACE***

Although there is extensive research on the market benefits of school, vocational and university education, there is little research on the market benefits of ACE-type education. ACE-type education includes studies equivalent or similar to ACE, such as certificate level qualifications.

For example, recent Productivity Commission research using the HILDA Survey and controlling for other factors has estimated that Year 12 completion increases the probability of labour force participation in males by 5.7 percentage points, compared to only completing Year 11 or lower. Higher qualifications have an even more profound effect, with a degree or higher increasing the probability of labour participation in females by 16.9 percentage points. However, ACE-type education is not specifically examined, with diploma, Certificate III and IV level education grouped together. Further, Certificate I and II level education is grouped with 'Year 11 or lower' education, and no analysis at all is undertaken of single-unit ACE studies. The lack of analysis of single-unit ACE study is a consequence of the HILDA Survey not asking any questions about whether respondents have undertaken this form of study (Laplagne, Glover & Shomos 2007).

One study examined the relationship between adult education and labour market earnings using the National Child Development Study (NCDS) from Great Britain. This study considered whether educational qualifications awarded in middle adulthood (aged 33–42 years) affect labour market earnings in men. Earnings are measured by gross hourly wages, with educational levels considered ranging from school-equivalent completion to postgraduate education. The study found that there were no genuine returns to qualifications completed in adulthood, as these returns were already present before the qualification was awarded due to pre-existing abilities and skills (Silles 2007).

In key skill areas targeted by ACE, such as literacy amongst adult migrants, Canadian research suggests that literacy amongst university-educated migrants would eliminate about two-thirds of the immigrant earnings disadvantage among university-educated workers. Furthermore, the same research suggests that literacy amongst native-born Canadians is as important for earnings as it is for migrants (Ferrer, Green & Riddell 2006). A limitation of this study is that it does not examine the effectiveness of programs aimed at improving adult literacy.

## **4.2 Valuing the market benefits of ACE**

### ***Introduction***

Drawing upon the above discussion, this section provides estimates of the economic benefit to Victoria from ACE in the 25-year period 2007 to 2031. The methodology is first outlined, followed by documentation of the results of our analysis. The Victorian Department of Treasury and Finance was consulted during the development of the methodology.

The underpinning research question to be answered by this analysis is: 'by how much is Victorian Government funded ACE study over the period 2007 to 2031 expected to increase production, and thus labour market earnings and Gross State Product over the same period?'

### *Methodology*

The methodology for this economic benefit analysis was developed on the basis of the available administrative and population survey data sets. The nature of ACE, whereby individuals may undertake study ranging from one or two modules to a full certificate, posed significant methodological challenges.

### *Data sources*

The key data sets used to undertake this analysis were:

- the HILDA Survey;
- ACFE Board student record data;
- Victorian Department of Planning and Community Development population forecasts; and
- Australian Bureau of Statistics (ABS) labour force survey results.

A number of other ABS survey data sets were also used for aspects of the analysis.

It should be noted that following much consideration, the results of the ACE Longitudinal Study (2004-06) have not been directly used in the economic benefit analysis. This decision was taken as the ACE Longitudinal Study only surveyed ACE participants, meaning that no comparisons could be made between non-ACE and ACE students. However, useful comparisons are able to be made between the ACE Longitudinal Study, and the HILDA analysis, particularly for labour force transitions.

### *Analysis method*

The method applied in estimating the extent to which ACE study may increase labour market earnings and Gross State Product (GSP) is detailed in Table 4.2.

A key facet of the estimation process was analysing the HILDA Survey to identify whether, on average, individuals who have undertaken ACE-type study have a higher annual wage income than individuals with no existing qualifications. The higher wage earned as a consequence of ACE-type study is the 'wage income premium'. ACE-type study was defined as a Certificate I to IV, with individuals with no existing qualifications identified on the basis of having only Year 11 or below level education. This analysis was undertaken separately for males and females, and for the age groups 25–49 and 50–59. The analysis was limited to Wave 5 of the HILDA Survey.

Another feature of the analysis was estimating the certificate-equivalent of ACE study. This stage is critical as a large number of ACE students undertake only a handful of ACE modules, comprising fewer SCHs than contained in a full certificate qualification. Such ACE study is assumed to have a benefit proportionate to the number of contact hours in certificate-level study. This assumption is considered reasonable because in many cases modules of study are subject to the same accreditation and quality requirements when undertaken individually or as part of a certificate program. Furthermore, only those SCHs considered as having a market benefit were included in the analysis, comprising all reasons for study with the exception of personal interest and self-development.

The accumulation of education in the Victorian population is known as the human capital stock, with the size of the stock attributable to ACE estimated as part of our analysis.

Table 4.2

**STAGES IN VALUING THE MARKET BENEFITS OF ACE - METHOD**

Stage	Detailed method
Estimate effect of ACE-type study upon individual income	<ul style="list-style-type: none"> <li>Using HILDA Wave Five, estimate difference (wage income premium) between average annual income for males and females aged 25–49 and 50–59, with ACE-type education as highest qualification (i.e. any certificate), and individuals with lower level of education (Year 11 or below)</li> <li>Estimate average income for age groups below 25, and above 59, on basis of hours worked relative to 25–49 and 50–59 age groups</li> </ul>
Identify ACE student contact hours (SCH) with market benefit	<ul style="list-style-type: none"> <li>Using 2006 ACFE student data, identify ACFE funded SCH with market-benefit related reason for study (all reasons except personal interest and self development)</li> <li>Estimate proportion of ACFE funded hours with a market benefit reason for study</li> </ul>
Forecast ACE student contact hours with a market benefit	<ul style="list-style-type: none"> <li>Estimate market-related benefit SCH per capita, by age group and gender, in years 2004–2006</li> <li>Forecast future market-related benefit SCH per capita using population forecasts (assumes average SCH per capita by age and gender for 2004-06 increases with population growth)</li> </ul>
Estimate future human capital stock	<ul style="list-style-type: none"> <li>On basis of forecast SCHs in period 2007-2031, estimate future Victorian human capital stock attributable to ACE, factoring in population ageing and movements in and out of the work force</li> <li>Convert human capital stock measured in SCH to certificate equivalent</li> </ul>
Value future human capital stock	<ul style="list-style-type: none"> <li>Value future human capital stock (total wage income attributable to ACE) using estimated income premium attributable to ACE</li> <li>Estimate net present value of future human capital stock, discounting with Treasury capital indexed bond rate</li> </ul>
Estimate GSP impact of future human capital stock attributable to ACE	<ul style="list-style-type: none"> <li>Estimate GSP impact of income premium attributable to ACE, dividing 2006 Victorian Gross State Product per employee week, by Victorian total average weekly earnings</li> <li>Estimate net present value of increase in GSP, discounting with Treasury capital indexed bond rate</li> </ul>

Source: The Allen Consulting Group.

**Key assumptions**

The key assumptions associated with the methodology are explained below.

*Wage income premium is attributable to ACE study*

The analysis assumed that the difference in average annual income in HILDA Wave Five between individuals who have completed ACE-type education, and individuals who have no existing qualifications, is due solely to ACE-type education. The analysis did not seek to control for other differences between individuals that may affect the size of the wage income premium attributable to ACE-type study. It was not possible within the scope of the project to undertake this econometric analysis.

Further, the analysis of wage income encompasses:

- increases in income that may be received by people already in employment who increase their productivity through ACE

- ACE contributing to people increasing their participation in the labour force.

Increased participation as a consequence of ACE could involve people entering full or part-time employment following unemployment or a period of non-participation, or a movement from part-time to full-time employment.

#### *Linkage between ACE module study and certificate-level study*

The assumption that ACE study is analogous to certificate-level study was discussed with a number of ACFE staff. This assumption was considered appropriate given that, in many cases, ACE module study may contribute towards a formal certificate qualification. Furthermore, individual modules are often subject to the same accreditation and quality requirements of a full certificate. As part of this assumption it was estimated that there were approximately an average of 500 student contact hours in a certificate.

#### *Growth in ACE study in line with population growth*

To forecast future ACE SCHs, the modelling first estimated SCH per capita by age group and gender. The model then applied these estimates to DPCD projections of Victoria's population. A key assumption was that ACE delivery grows in line with population growth by gender and age group.

### **Results**

#### *Estimating the effect of ACE on income*

The results of the estimation of the market benefits attributable to ACE are reported in Table 4.3, indicating that ACE has a substantial effect upon both labour force participation and productivity. These estimates are broadly in line with other research, and estimates published by the Australian Bureau of Statistics (ABS 2006). The effect of ACE upon employment status is reflected in these estimates, with individuals with less than Year 12 education and not in employment having wage income equal to zero.

Of particular significance is the finding that there is a smaller wage premium from ACE-level education in females. This finding is consistent with other labour economics research. On average, women work fewer hours per week, and have a lower labour force participation rate than men. This difference is largely explained by the wide range of effects of child-bearing upon female employment (Office of Women, 2007).

Table 4.3

**STAGES IN VALUING THE MARKET BENEFITS OF ACE - SUMMARY RESULTS**

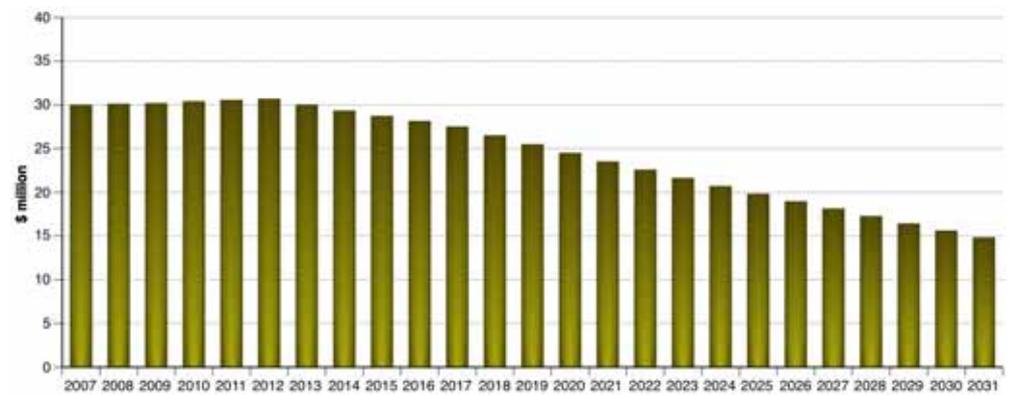
Stage	Summary results		
Estimate effect of ACE-type study upon individual income	Average annual wage income premium		
	Males		
	Females		
	Age 25-49	\$12 829	\$1 336
	Age 50-59:	\$8 316	\$2 205
	Additional annual wage premium derived on basis of hours worked		
	Males	Females	
	Age 15-19:	\$3 830	\$ 481
	Age 20-24:	\$9 651	\$1 368
	Age 50-59:	\$8 316	\$2 205
Age 60-64:	\$5 468	\$1 180	
Age 65-69:	\$1 241	\$ 110	
Identify ACE student contact hours (SCH) with market benefit	<ul style="list-style-type: none"> <li>Estimated that in 2006, 63.7 per cent of Victorian Government funded SCH had a market benefit</li> </ul>		
Forecast ACE student contact hours with a market benefit	<ul style="list-style-type: none"> <li>Estimate of average 0.6 SCH per capita in 2004-2006 with a market benefit</li> <li>Estimated that market benefit SCH to grow from 4.53 million in 2007, to 5.082 million in 2031</li> </ul>		
Estimate future human capital stock	<ul style="list-style-type: none"> <li>On basis of estimated average student contact hours for certificate-level study (500 hours), calculated that certificate number equivalent of ACE human capital stock to grow from 8746 in 2007, to accumulated human capital stock of 205 655 in 2031</li> </ul>		
Value future human capital stock	<ul style="list-style-type: none"> <li>Estimated annual value of wage income attributable to ACE completions between 2007 and 2031, to grow from \$30 million in 2007, to \$819 million in 2031</li> <li>Net present value of increased income estimated to be \$7.5 billion</li> <li>Net present value of future income from ACE completions in 2007 only estimated to be \$202 million</li> </ul>		
Estimate GSP impact of future human capital stock attributable to ACE	<ul style="list-style-type: none"> <li>GSP impact estimated to be 2.13 times the wage income effect, increasing from \$63.7 million in 2007, to \$1.7 billion in 2031</li> <li>Net present value of additional GSP attributable to ACE estimated to be \$16 billion</li> </ul>		

Source: The Allen Consulting Group.

Figure 4.2 reports the estimated annual income earned in the period 2007 to 2031, by individuals who had completed their ACE-studies in 2007. The slight increase in the value in the period 2007 to 2012 reflects this cohort moving into higher income age groups, whereas the decline from 2013 onwards reflects exits from the labour force due to ageing. These estimates are discounted to 2007-08 dollars, using the Treasury capital indexed bond rate (2.46 per cent). The net present value of this future increase in wage income is \$1.3 billion.

Figure 4.2

**VALUE OF INCREASED HUMAN CAPITAL FROM ACE STUDY IN 2007 (DISCOUNTED IN CONSTANT 2007-08 DOLLARS)**



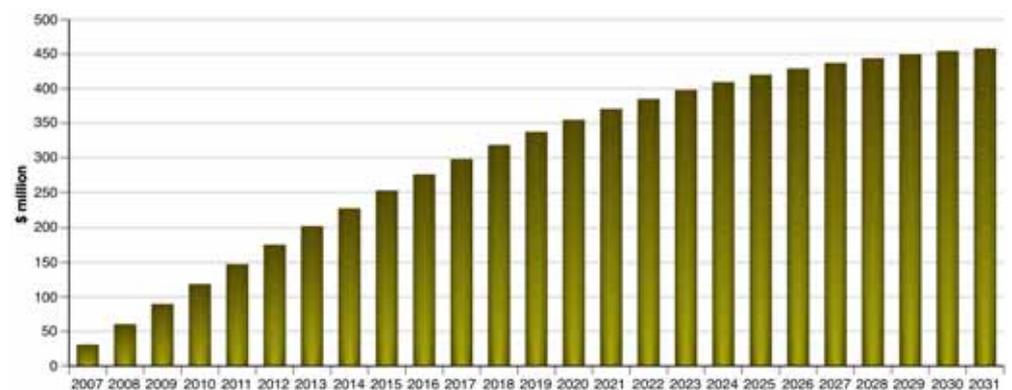
Source: The Allen Consulting Group.

Figure 4.3 indicates the annual value of the human capital stock (or additional wage income) earned over the period 2007 to 2031, by individuals completing ACE over this same period. These estimates are discounted to 2007-08 dollars, using the Treasury capital indexed bond rate (2.46 per cent). The net present value of this future increase in wage income is \$7.5 billion.

These estimates reflect the accumulation of human capital stock over the period 2007 to 2031, growing rapidly in the earlier years as ACE study is completed each year. The slow growth in the later years reflects the effect of discounting, and also exits from the labour force as a consequence of retirement.

Figure 4.3

**VALUE OF INCREASED HUMAN CAPITAL FROM ACE STUDY BETWEEN 2007-2031 (DISCOUNTED IN CONSTANT 2007-08 DOLLARS)**



Source: The Allen Consulting Group.

Analysis of ABS national accounts and weekly earnings data suggests that on average, the GSP impact of increased wage earnings is a multiple of 2.13. Applying this estimate to the above results suggests that the additional production attributable to ACE-type study will increase Victorian GSP by \$16 billion over the period 2007–2031. Furthermore, it is estimated that ACE study over the period 2007 to 2031 will contribute \$955 million to Victorian GSP in 2031, up from a contribution of \$124 million in 2007 and \$621 million in 2017.

### 4.3 Other labour market effects of ACE

The HILDA Survey data set and the ACE Longitudinal Study were also analysed to identify whether there is a difference between the labour force transitions of individuals who have undertaken ACE-type study, and those with no previous qualifications (Year 11 or below). In particular, analysis was undertaken to ascertain whether there are differences between individual transitions from unemployment to employment (full or part-time), on the basis of having undertaken ACE-type study.<sup>8</sup>

The results of the HILDA analysis of individuals with no previous qualifications are provided in Table 4.4, indicating the labour force status of survey respondents in 2005 on the basis of their labour force status in 2001. For example, of those males who had no existing qualifications in 2001, and did not undertake any ACE-type study between 2001 and 2003, 44.09 per cent of those unemployed in 2001 were in full-time employment in 2005. Among females, only 12.33 per cent of women reporting being unemployed in 2001 were still unemployed in 2005. In contrast, the majority of both males and females reported as not being in the labour force in 2001 reported not being in the labour force, or unemployed, in 2005.

Table 4.4

#### LABOUR FORCE TRANSITIONS AND INDIVIDUALS WITH NO PREVIOUS QUALIFICATION

Labour Force Status in 2001	Labour Force Status in 2005			
	Employed - FT	Employed - PT	Unemployed	Not in labour force
	(per cent)	(per cent)	(per cent)	(per cent)
<b>Males</b>				
Employed – Full time	83.09	6.82	0.72	9.37
Employed – Part time	40.11	35.87	3.29	20.72
Unemployed	44.09	17.43	24.51	13.97
Not in labour force	8.72	7.26	0.77	83.24
<b>Females</b>				
Employed – Full time	59.6	22.36	2.16	15.88
Employed – Part time	20.11	56.71	2.03	21.15
Unemployed	18.82	32.97	12.33	35.88
Not in labour force	2.09	9.19	1.74	86.97

Source: Allen Consulting Group

<sup>8</sup> The analysis reported below was independent of the results reported in section 4.2.

Table 4.5 reports the labour force transitions reported in the ACE Longitudinal Study, indicating the labour force status of respondents in 2004 and 2006. Although the longitudinal study is over a different time period to the HILDA analysis reported in Table 4.4 for individuals with less than ACE-level education, the findings are instructive.

Among females reporting being unemployed in 2004, 62.77 per cent were either in full or part-time employment in 2006. This contrasts to 51.79 per cent employment in 2006 among women with no existing qualifications who reported being unemployed in 2001. This increase in labour force participation as a result of ACE is in line with the human capital policy directions being pursued by the Victorian Government as part of the National Reform Agenda.

The labour force transitions for males who have undertaken ACE studies are not as favourable, with 25.93 per cent of males reporting being unemployed in 2004 still unemployed in 2006. This contrasts to 24.51 per cent for males with no existing qualifications who were unemployed in 2001 and still unemployed in 2005.

Table 4.5 also reports a significant movement into employment of women who were not in the labour force in 2004. Of women not participating in the labour force in 2004 and who undertook ACE study, 37.62 per cent were in employment in 2006. This contrasts to only 11.28 per cent employment in 2005 amongst women with no existing qualifications, and who were not participating in the labour force in 2001. As in the above analysis of individuals with no previous qualifications, the majority of male and females reported as not being in the labour force in 2004 reported not being in the labour force, or unemployed, in 2006. However, the ongoing state of not being in the labour force was much less in women (55.45 per cent) than in men (87.88 per cent).

It should be noted that these results do not control for other factors that may influence labour force transitions, such as the completion of full-time study, having young children, or local economic conditions.

Table 4.5

**LABOUR FORCE TRANSITIONS AND INDIVIDUALS WHO UNDERTOOK ACE STUDY**

Labour Force Status in 2004	Labour Force Status in 2006			
	Employed - FT	Employed - PT	Unemployed	Not in labour force
	(per cent)	(per cent)	(per cent)	(per cent)
<b>Males</b>				
Employed – Full time	90.63	6.25	0.00	3.13
Employed – Part time	30.00	55.00	5.00	10.00
Unemployed	37.04	22.22	25.93	14.81
Not in labour force	6.06	0.00	6.06	87.88
<b>Females</b>				
Employed – Full time	75.76	21.21	3.03	0.00
Employed – Part time	28.57	58.29	2.86	9.71
Unemployed	24.47	38.30	13.83	23.40
Not in labour force	10.89	26.73	6.93	55.45

Source: The Allen Consulting Group.

#### 4.4 Fiscal implications

Estimates have also been developed of the fiscal implications for both the Victorian and Commonwealth Governments of the GSP attributable to ACE. These estimates have been developed following analysis of ABS National Accounts and Government Financial Statistics data identifying Commonwealth and Victorian Government taxation receipts as a share of Gross Domestic Product (GDP) and GSP respectively (ABS 2007g and 2007h). Victorian Government payments for ACE were estimated on the basis of current payment levels increasing in line with population growth, as reflected in the forecasts developed as part of section 4.3.

These results are presented below in Table 4.6.. The net present value of Victorian Government expenditure on ACE, and taxation revenue generated on the basis of increased GSP in the 25-year period 2007–2031, is estimated to be \$21.7 million.<sup>9</sup> This finding suggests that from the Victorian Government perspective, ACE will pay for itself over the period 2007 to 2031, generating \$21.7 million more in taxation revenues than what ACE is likely to cost over the same period.

As an indication of the long time frames over which ACE-study generates a return, the net present value to the Victorian Government of ACE-study in 2007 alone is estimated to be \$25.2 million. This estimate is based upon government payments for the provision of ACE in 2007, and taxation receipts over the following 25 years. It is estimated that on the basis of Victorian Government expenditure on ACE in 2007 (\$33.6 million), it will take until 2019 for this expenditure to be returned through Victorian Government taxation revenues.

<sup>9</sup> These estimates of taxation receipts attributable to ACE were estimated on the basis of Victorian Government taxation revenues as a percentage of GSP, and of Commonwealth Government taxation revenues as a percentage of GDP in 2005-06.

The Commonwealth Government is also expected to benefit significantly from Victoria’s expenditure on ACE. For every dollar the Victorian Government collects in taxation, the Commonwealth Government collects almost six dollars.<sup>10</sup> Over the period 2007 to 2031, the Commonwealth Government is expected to collect taxation revenues from ACE study in 2007 alone with a net present value of \$345 million. Furthermore, study in Victoria’s ACE sector over the period 2007 to 2031 is expected to generate \$4.26 billion in taxation revenues to the Commonwealth Government over the same period.

It should be noted that the analysis in this chapter does not include the benefits associated with Commonwealth Government funding of ACE, comprising \$14.7 million in 2006-07. This Commonwealth expenditure can be expected to generate a relative return in line with that from Victorian Government expenditure.

Table 4.6

**FISCAL EFFECTS OF ACE IN VICTORIA**

	Payments	Receipts	Net present value
<b>ACE in 2007 only</b>			
Victorian Government	\$36.7 million	\$61.9 million	\$25.2 million
Commonwealth Government	Welfare savings <sup>a</sup>	\$345.2 million	\$345.2 million
<b>Total</b>	<b>\$36.7 million</b>	<b>\$407.1 million</b>	<b>\$370.4 million</b>
<b>ACE over 2007 to 2031</b>			
Victorian Government	\$741 million	\$763 million	\$21.7 million
Commonwealth Government	Welfare savings <sup>a</sup>	\$4.26 billion	\$4.26 billion
<b>Total</b>	<b>\$741 million</b>	<b>\$5.02 billion</b>	<b>\$4.28 billion</b>

Note: Payments and receipts are discounted. The benefits of ACE in terms of the improved health and wellbeing of participants, further discussed in Chapter 5, have not been incorporated into these fiscal estimates. As a result, these estimates likely understate the actual fiscal benefits of ACE.

a = Unable to estimate welfare savings given available information.

Source: The Allen Consulting Group.

There is a strong likelihood that the Commonwealth Government also benefits from the Victorian Government’s expenditure on ACE through lower levels of unemployment and welfare dependency among ACE participants. This lower level of unemployment would mean that the Commonwealth makes few welfare payments, such as the Newstart Allowance — the payment targeted to unemployed people. There may also be more indirect benefits to the Commonwealth Government through ACE contributing to the improved health and wellbeing of participants, and thus reducing dependency on other welfare payments such as the Disability Support Pension.

<sup>10</sup> In this analysis, the Goods and Services Tax (GST) is treated as a Commonwealth Government tax. Furthermore, Commonwealth GST collections attributable to ACE that are passed onto the states and territories, are not reported under Victorian Government receipts in Table 4.6..

The available data from HILDA and the ACE Longitudinal Study, however, is inconclusive in providing evidence on different levels of welfare dependency between ACE completers, and those with lower levels of education. For example, HILDA suggests that there is no difference in the unemployment rate of individuals who have undertaken ACE-type studies, and those who have no previous qualifications. This is an issue requiring further examination.

Finally, it is likely that there may be a number of indirect fiscal benefits associated with ACE studies. These include improved health status reducing utilisation of health services, and reduced anti-social activity such as crime reducing criminal justice system activity.

## Chapter 5

# Non-market benefits of ACE

*This chapter describes the non-market benefits that accrue from ACE in Victoria.*

### Key points

- *Non-market benefits of ACE are difficult to quantify, but are still real and significant.*
- *Social and non-market benefits of ACE study are estimated to be equal to or larger than the market benefits of ACE study.*

Estimating the complete range of benefits resulting from education — both market and non-market — is crucial to informing the education decisions of individuals, as well as determining the extent of any public subsidy (McMahon 1998). The non-market benefits of ACE are benefits attributable to ACE, which are not traded in the market economy. Non-market benefits may either be *private*, accruing to individuals participating in ACE, or *public*, the externalities (or ‘spillover benefits’) experienced by the wider community.

While non-market benefits are not readily quantifiable (Behrman, Crawford & Stacey 1997)<sup>11</sup>, they are nevertheless real and substantial, and should not be overlooked when estimating the value of ACE in Victoria. The social and non-market effects of education have been estimated to be equal to or larger than the market effects (Wolfe & Haveman 2001; McMahon 2004). In its report on human and social capital, the OECD observes the interrelationship between education, market and non-market (non-economic) returns, and economic performance:

The non-economic returns to learning in the form of enhanced personal well-being and greater social cohesion, are viewed by many as being as important as the impact on labour market earnings and economic growth. These personal and social goals of learning are not necessarily inconsistent with the goal of promoting economic performance, not least as well-rounded, flexible and adaptable individuals ready to continue learning through life are necessary for realising the economic goals of education (2001, p. 17).

Non-market benefits are likely to be particularly significant within the ACE sector given the range of outcomes to which it contributes beyond economic and employment outcomes, such as community participation and personal wellbeing. ACE institutions, programs and pedagogies tend to be oriented towards the enrichment of individuals, families and communities, where building social capital through ACE participation is viewed as supporting regional regeneration and community development (Townsend 2006, p. 4).

<sup>11</sup> Key conceptual and measurement challenges in quantifying non-market benefits include: establishing causality, measurement errors, double counting those non-market returns that overlap with market returns, and possible biases from unobserved variables. See McMahon (1998) and Behrman (1997) for a further discussion of these issues.

McMahon (1998) provides a framework for identifying the non-market benefits resulting from lifelong learning, noting that some benefits may be more or less apparent in different forms of learning. This framework is set out in Appendix B, from which the non-market benefits of ACE may be viewed as comprising a subset. Drawing from this framework, as well as the broader education and human and social capital literature, the following sections identify, discuss and scale (where possible) those non-market benefits resulting from ACE.

### **5.1 Private non-market benefits**

Private non-market benefits arise from economic activities that produce goods and services, which are not distributed through markets, and which accrue to the individual. While these benefits do not generally have readily identifiable market values, they are taken into account in production and consumption decisions.

Non-market benefits accruing to learners participating in ACE include:

- improved personal health and wellbeing;
- enjoyment of the ACE environment;
- more efficient household management; and
- other private non-market benefits.

Each of these benefit areas is discussed in turn below.

#### ***Improved personal health and wellbeing***

The research literature provides considerable evidence of the positive causal effects of education and social connectedness on improved health and wellbeing (Putnam 1993).

The literature identifies the following improvements to personal health and wellbeing as resulting from greater education or social connectedness:

- *reduced drinking* — individuals with greater levels of educational attainment are less likely to drink heavily (OECD 2001);
- *reduced smoking* — individuals with greater levels of educational attainment are less likely to smoke, and among persons who do smoke, those with more education smoke fewer cigarettes (Wolfe & Haveman 2001);
- *increased exercise* — individuals generally spend more time exercising as their level of educational attainment increases (OECD 2001);
- *reduced incidence of obesity* — as an individual increases their educational attainment, their likelihood of being obese declines (OECD 2001);
- *increased longevity* — individuals with greater levels of educational attainment have greater longevity, due to occupational choices (choosing jobs with fewer occupational hazards), greater information or skills in acquiring health-related information, fewer health reducing behaviours (such as smoking and drinking), and more appropriate health care usage (Wolfe & Haveman 2001; McMahon 2006);

- *improved wellbeing* — studies suggest that self-reported wellbeing increases with educational attainment, even when controlling for income (Blanchflower & Oswald cited in OECD 2001);
- *reduced mortality rates* — studies have found a link between the level of social and community ties and memberships in voluntary groups and mortality rates (House et al. 1982);
- *improved mental health* — individuals with greater educational attainment exhibit a lower prevalence of severe mental illness (Robins et al. cited in Wolfe & Haveman 2001); and
- *reduced risk of suicide* — studies indicate a link between social connectedness and a decrease in levels of suicide (Putnam 1993).

In a review of 132 research studies concerning the effects of education on health, Grossman and Kaestner (1997) estimate that the purely non-monetary effects of education in terms of better individual health, better spouse health, and better child health — after controlling for income, IQ and initial status — amounted to 40 per cent of the effect of education on earnings.

Within the adult education context more specifically, ACE has been shown to improve mental and physical health and wellbeing by engaging adults — many of whom may be socially marginalised — in a range of productive pursuits. As previously noted, a study of adults returning to learning in the United Kingdom (NIACE 2007) found that 89 per cent of learners reported that returning to learning had a positive impact on their mental health, while 87 per cent reported positive physical health outcomes.

Specific examples of the ways in which ACE can improve the social inclusion of participants — which positively affects wellbeing in a range of ways — include by:

- assisting long-term unemployed people to keep mentally active and in touch with the local community;
- enabling people with disabilities to participate in the community;
- providing opportunities for elderly people to learn and teach, assisting them to maintain mental health and interact socially; and
- assisting migrants to improve their English skills, enabling them to interact and integrate with the local community (Walstab et al. cited in Bowman 2006).

Within an Australian context, an analysis of educational attainment and health data (Stanwick et al. 2006) found a small positive relationship between education and measures of health and wellbeing. The authors found that those with certificate-level qualifications did not have substantially different physical and mental health to those with Year 11 or below qualifications. However, the authors also highlight the importance of significant *indirect effects* of education, such as the social benefits of learning environments and income levels, both of which were found to have a significant impact on health and wellbeing.

### ***Enjoyment of the ACE learning environment***

The ACE learning environment appeals to learners for a range of reasons. As examples, ACE learners may be discouraged from formal learning or be returning to education after time away from study, and find ACE environments to be informal, social and non-intimidating (Bowman 2006). Other learners may value the social interactions, enhanced personal relationships and sense of belonging that can be developed through ACE programs (Clemans et al. 2003).

While these benefits cannot readily be quantified, the enjoyment that participants derive from the ACE learning environment is likely to be a significant motivator for many ACE learners, particularly those participating in non-accredited or personal enrichment programs. A survey of ACE students in Australia found that nearly half of all students identified ‘making friends’ as an associated benefit of their ACE program (The Institute for Research into International Competitiveness cited in Birch et al. 2003).

### ***More efficient household management***

Greater levels of educational attainment have been shown to improve the efficiency with which individuals perform a range of aspects of household management (McMahon 1998). As examples, individuals with greater educational attainment (holding other factors constant) have been found to make better financial decisions, achieve greater rates of saving, and are more efficient at household purchasing (Wolfe & Haveman 2001). This likely occurs because more educated individuals are able to gain and process information that promotes more efficient decisions.

### ***Other private non-market benefits***

A range of other private non-market benefits resulting from greater levels of educational attainment are identified in the literature. Some of those that may result from participation in ACE in particular include:

- *more efficient labour market search* — there is some evidence that the costs of job search are reduced with increased education (Wolfe & Haveman 2001);
- *attainment of desired family size* — family planning has been shown to be related to education (Wolfe & Haveman 2001);
- *lifelong learning and continued learning* — there is a positive correlation between educational attainment and lifelong learning, which may be expressed as greater use of new technologies within the home, or heightened curiosity and educational endeavour (McMahon 1998); and
- *confidence* — surveys found that significant proportions of ACE participants report greater levels of personal satisfaction and confidence to undertake further study as a result of ACE participation (Birch et al. 2003).

## **5.2 Public non-market benefits**

Externalities are the social benefits from education that ‘spill over’ and benefit others and society as a whole. As these benefits cannot be captured privately, the incentives of individuals to invest in their education are limited to those factors that benefit them directly. In the absence of public funding or other incentives, their investment in education will occur at levels below the social optimum.

Non-market benefits accruing to society as a result of people participating in ACE include:

- increased social capital;
- volunteerism and giving;
- decreased crime;
- intergenerational benefits; and
- other public non-market benefits.

Each of these benefit areas is discussed in turn below.

### ***Increased social capital***

ACE is recognised as building social capital within communities, which is a well-documented indicator of an activity's wider benefit. Social capital can be defined as:

...the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development...it includes the shared values and rules for social conduct expressed in personal relationships, trust, and a common sense of civic responsibility (Productivity Commission 2003, p. 8).

In a study examining the role of ACE in contributing to the social capital of ten Victorian regions (Falk et al. 2000), the authors found evidence that ACE contributed to community wellbeing in all of the regions profiled. As set out in the study's findings:

ACE contributes to the development of social capital by, first, calling on existing networks, and second, generating new networks or connections. In other words, social capital building is not an incidental by-product of the way ACE providers operate. Social capital production is the *modus operandi* of ACE (Falk et al. 2000, n.p.).

The research literature emphasises the strong links between lifelong learning and social capital. Golding (2006, p. 4) observes that ACE promotes lifelong learning, as well as connecting communities and encouraging community engagement, such as through promoting volunteerism.

While ACE serves a pivotal role in building social capital and trust for the community as a whole, ACE is particularly recognised for providing accessible opportunities for vulnerable members of society, who may lack social power or trust. Within Australian society, such groups include those who are unemployed, in poor health, elderly, young or are recent immigrants (Townsend 2006).

The dichotomy of this situation, as surmised by Golding (2006, p. 4), is that small, poorly-funded, community-based organisations such as ACE are actually better positioned than are large, formal, commercial and fully funded organisations to reach and support those members of society most in need.

Many of the other public non-market benefits of ACE discussed below can be considered to be benefits and manifestations of strong social capital.

### ***Volunteerism and giving***

There is strong evidence to suggest that volunteerism and giving is strongly linked to education generally, and to ACE participation in particular.

Evidence from the United Kingdom illustrates a strong correlation between levels of education and membership of political organisations, environment or women's groups, charities, and resident and parent-teacher associations (Schuller et al. cited in OECD 2001). Similarly, a survey conducted in the United States found that people with some post-secondary education give voluntarily and generously of their time to community-service activities nearly twice as often as those with a high-school education, irrespective of income (McMahon 1998).

A longitudinal survey of ACE participants in Victoria showed strong growth in community participation and volunteer work among those participating in ACE. A greater proportion of all cohorts surveyed (full time, part-time/casual, unemployed, and not in the labour force) undertook some form of volunteer work in the year following the initial survey (2005), with an even greater proportion planning to undertake volunteer work in the next year (2006) (Walstab et al. 2005).

Literacy skills among adults have been shown to have a positive relationship with participation in voluntary community activities for several OECD countries (OECD & Statistics Canada cited in OECD 2001).

### ***Decreased crime***

There is an extensive research literature demonstrating the roles of education and social capital as reducing the incidence of violence and crime. As noted by the OECD:

...even controlling for poverty and other factors that might encourage criminal behaviour, communities characterised by i) anonymity and limited acquaintance among residents; ii) unsupervised teenaged peer groups; and iii) low level of civic participation, face an increased risk of crime and violence (2001, p. 54).

ACE provides opportunities to counteract each of the factors identified above, by contributing to the accumulation of social capital within a community, providing alternative learning pathways for disengaged youths, and promoting civic participation. As well as delivering ACE programs to learners, many ACE providers have a number of links within the community, and with youth in particular, such as through youth pathways programs, counselling services, and community initiatives (a practical example of this is the work of the Narre Community Learning Centre, as discussed in Appendix A).

However, there are some characteristics of the ACE sector which suggest that the direct educational benefits from ACE may decrease crime to a lesser extent than other forms of education. In particular, ACE participants are, on average, significantly older than students in other forms of education (Townsend 2006), however rates of criminal activity are generally much higher among adolescents than other age cohorts. Studies have shown the significance of the early years of childhood development as a determinant of outcomes in later life (including involvement in criminal activities), and as such, the immense value of conducting interventions (such as parental supports and pre-school initiatives) at this stage of life.

However, ACE — as a builder of social capital — also serves to prevent crime. ACE provides opportunities for volunteerism, civic participation and informal socialising, all of which are recognised elements of social capital (Graycar 1999).

### ***Intergenerational benefits***

An individual's educational attainment is a key determinant of the educational attainment of their children. As examples, children of parents with upper secondary attainment are more likely themselves to complete upper secondary education; are more likely to have higher levels of cognitive development; and have higher earnings potential. From an intergenerational health perspective, research indicates that children of parents with greater levels of education are less likely to be obese, have healthier teeth, and are less likely to be anaemic (McMahon 1998).

From a community perspective, children living in areas comprised of individuals with higher levels of educational attainment have an increased probability of completing secondary schooling, other things held constant (Wolfe & Haveman 2001). Similarly, the tertiary aspirations of males have been found to be positively correlated to the educational attainment of their parents (especially the mother's education), holding other factors constant (McMahon 1998).

The educational attainment of one generation also has positive impacts on the next generation, in terms of non-marital child bearing and crime-related activities. This occurs both through the direct relationship between parental human capital to the attainment of their children, and indirect effect through improving the human and social capital environment in communities where children are raised (Wolfe & Haveman 2001).

As a pathway to further education — and as an educational sector in its own right — ACE provides accessible programs that benefit learners, their children and their communities.

### ***Other public non-market benefits***

Other public non-market benefits of ACE and education more broadly that are identified in the literature include:

- *Knowledge dissemination* — as termed by McMahon (1998), the capacity of people to learn later in life and to adapt to new technologies is an enormous externality of education. Education assists people to learn and adapt throughout life, and assists with the diffusion of technology (Wolfe & Haveman 2001), without which the costs to the public would be significant;
- *Civic participation* — education is shown to be one of the most important predictors of political and civic engagement. Education has been shown to increase political participation (Verba et al. cited in OECD 2001); contribute to a better-informed electorate (Maynard & McGrath 1997); and support for free speech (Dee cited in McMahon 2006);
- *Health* — while there are positive health benefits for individuals participating in ACE and other forms of education and socialisation, there are further health benefits in terms of the extent to which greater care of individuals' health results in health benefits for others, such as through reducing the spread of infectious diseases. The literature notes, however, that these effects are likely to be modest (Wolfe & Haveman 2001); and

- *Environment* — education can promote behaviour that improves environmental quality, with more educated people having a greater propensity to undertake averting behaviour, respond to information programs and form risk perceptions for different types of environmental hazards (Smith 1997). Education also increases individuals' awareness and economic capacity to support positive environmental activity (McMahon 2006).

## Chapter 6

# Conclusion

ACE providers are characterised as being highly responsive to the changing needs of their communities and accessible to those learners likely to benefit from their programs. Victoria's ACE sector plays a pivotal role in implementing key government policy objectives by engaging in education those less likely to access other, more formal educational institutions, thereby lifting the skill levels across the spectrum of the adult community.

The ACFE Board funds registered ACE providers to deliver certain ACE programs, including adult literacy and numeracy, VCE and VCAL, employment skills and vocational programs. This funding is targeted to support identified priority learning groups, such as people with low levels of prior education and specific disadvantaged groups. In 2006-07, the Victorian Government provided \$33.8 million funding to the ACFE Board (ACFE Board 2007), a large proportion of which is then distributed to ACE providers through the Regional Councils of ACFE.

Government funding for the ACE sector — which supplements contributions made by learners, industry and other sources — recognises the distributed nature of the benefits resulting from ACE participation, which this study has found to be significant.

The *market benefits* of ACE include:

- *private benefits*, which accrue to individuals undertaking ACE study and comprise increased wages and more favourable labour market outcomes, due to the improvements in human capital that ACE study engenders in its learners; and
- *public benefits*, which accrue to the wider Victorian community and include a \$16 billion increase in GSP over 25 years and fiscal benefits to the Victorian and Commonwealth Governments attributable to the ACE sector.

While these benefits are considerable, the non-market benefits of Victoria's ACE sector are expected to be at least as substantial as the market benefits, if not more so, given the range of distributed outcomes to which ACE contributes beyond economic and employment outcomes, such as personal and community wellbeing.

The *non-market benefits* of ACE include:

- *private benefits*, such as improved personal health and wellbeing; enjoyment of the ACE environment; more efficient household management; and
- *public benefits*, such as increased social capital; volunteerism and giving; decreased crime; intergenerational benefits.

The total benefit of the ACE sector to Victoria is evidenced by the demonstrated extent of market benefits, and the nature and likely scale of non-market benefits. These benefits, relative to government investments in the sector to date, present a compelling case for government support of Victoria's ACE sector in the future.

## Appendix A

### Case studies

ACE activities in two local government areas are outlined — the metropolitan City of Casey and the regional Shire of Colac Otway — including detailed descriptions of the largest ACE providers in each. These case studies are used to illustrate the nature of the economic and community benefits derived from ACE activities.

#### A.1 The City of Casey

This section describes ACE activities in the City of Casey (Casey). Casey is located in Melbourne's south-eastern suburbs (see Figure A.1). It recorded a population of 214 959 people in 2006 and is growing strongly — Casey's population increases by an average of 121 people per week (City of Casey 2007).

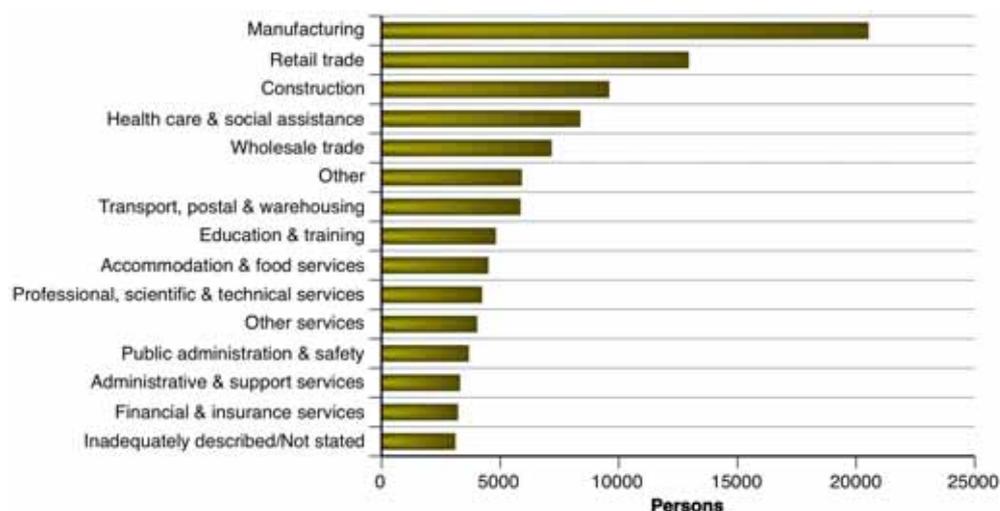
Figure A.1

#### CITY OF CASEY



Figure A.2 profiles Casey's industry structure in terms of the number of people employed in each sector.

Figure A.2

**CITY OF CASEY — EMPLOYMENT BY SECTOR**

Source: ABS 2007a.

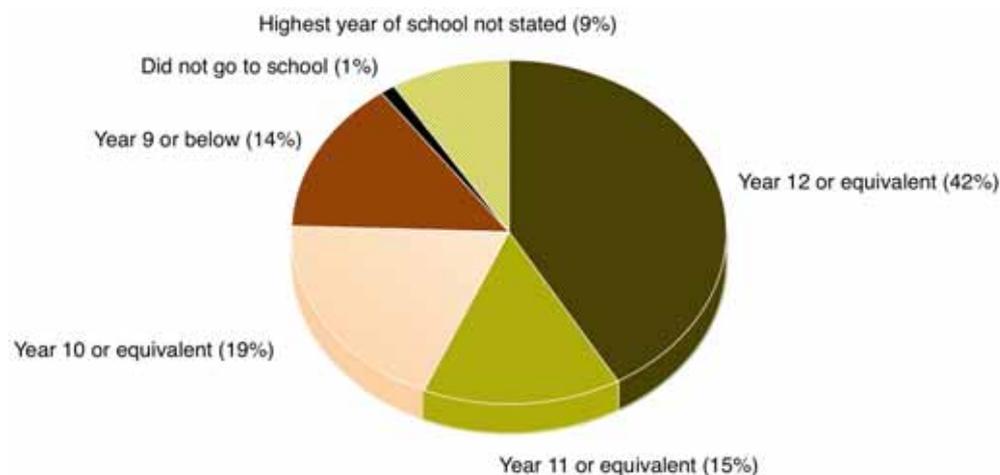
Note: 'Other' includes the following sectors: information media & telecommunications; rental, hiring & real estate services; arts & recreation services; electricity, gas, water & waste services; agriculture, forestry & fishing; and mining.

Casey's leading employment sector is manufacturing, which employs around 20 480 people, representing 20.3 per cent of employed persons. Other leading sectors by employment are retail trade, construction, health care and social assistance, and wholesale trade. This industry structure reflects a developing region, with manufacturing declining in its influence (despite its present significance), and strong growth in construction, retail and other services.

Casey's workforce has a strongly vocational orientation in terms of non-school qualifications. In Casey, a significantly larger proportion of persons have a certificate-level qualification rather than a university qualification — certificate-level qualifications (most commonly Certificate III and IV) are nearly twice as prevalent than bachelor, graduate or postgraduate qualifications (ABS 2007e).

As shown by Figure A.3, at least 15 per cent of Casey's over fifteen population who are no longer at school did not complete Year 10 or above.

Figure A.3

**HIGHEST YEAR OF SCHOOL COMPLETED**

Source: ABS 2007c.

In 2006, there were seven ACE providers delivering courses to 1719 students in Casey. Narre Community Learning Centre (NCLC) is the largest of these providers, with 697 students enrolled in 2006 (NCLC is profiled below). Other large ACE providers in Casey include: Merinda Park Learning and Community Centre (356 student enrolments); and Cranbourne Community House (314 student enrolments), which deliver a range of adult basic education, VET and non-VET courses.

There are four smaller ACE providers (those with fewer than 150 student enrolments) delivering courses in Casey, namely:

- Hampton Park Community House;
- Doveton Neighbourhood Community Learning Centre;
- Endeavour Hills Neighbourhood Centre; and
- Hallam Community Centre.

Smaller ACE providers tend to offer a smaller range of accredited courses, though all providers share a similar ethos of volunteerism, accessibility and community responsiveness.

***Narre Community Learning Centre***

NCLC is a well-established ACE provider and community institution, delivering a range of education and training courses and community and social services. In 2006, NCLC's annual revenue was \$1.65 million (NCLC Inc. 2007), and welcomes around 1500 people into its centre each week.

### *Service delivery*

While having a clear focus on training and development, NCLC provides a range of community and social services that support the needs of the local community. In 2006, NCLC delivered:

- 100 045 ACFE student contact hours (ACFE Board 2007); and
- 63 284 hours of health and community services — which are not funded by the ACFE Board — such as disability support and services (NCLC Inc. 2007).

NCLC's services include:

- *General education*, around 200–250 courses each year, which include:
  - *General interest*, including art, music, cooking and dance courses;
  - *Language*, foreign languages;
  - *Health and wellbeing*, including yoga, meditation and self-defence courses;
  - *Youth*, including programs to improve literacy, numeracy, and self-confidence;
  - *Kids corner*, including pre-kinder early childhood development programs and playgroups;
  - *Professional skills*, including bookkeeping, first aid, and public speaking;
  - *Literacy*, particularly English as a second language;
  - *Computers*, courses for general computer skills and programs;
- *Social services*, such as a youth-based referral program, disability support and services, awareness programs (e.g. breast cancer), and a neighbourhood house; and
- *Community services*, such as hall and venue hire (including management of the Old Cheese Factory in Berwick), craft shop, early childhood development (pre-kinder).

By number of enrolments, the most popular courses delivered at NCLC in 2006 were in the areas of:

- General education, 159 enrolments;
- Aged care, 66 enrolments;
- Retail, 36 enrolments;
- Business, 41 enrolments; and
- VCAL, 24 enrolments.

### *Management and operations*

NCLC is governed by a Board of Management, comprised of volunteer members. The Board appoints a Chief Executive Officer, who is responsible for day-to-day management.

NCLC employs twenty-four permanent staff (approximately twenty full time equivalents), and around forty sessional staff. NCLC is supported by volunteers across almost every aspect of its business. Volunteers, who are managed by a Volunteer Coordinator, donate in the order of 200 hours per week

NCLC draws its revenues from a range of sources. Government funding sources include (NCLC personal correspondence):

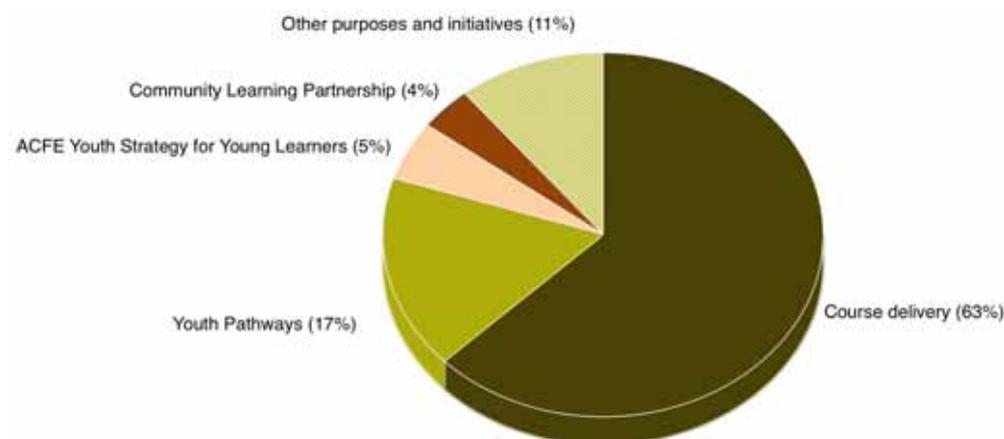
- *Commonwealth Government* — NCLC did not receive any Commonwealth funding in 2006, however it does occasionally receive project funding;
- *Victorian Government* — NCLC receives around 50 per cent of its revenue from the Victorian Government. Most of this funding is provided by the ACFE Board (\$726 369 was provided by the ACFE Board in 2006 (ACFE Board 2007)), with some funding provided by the Department of Planning and Community Development for NCLC's neighbourhood house function, and some DHS funding for child care provision; and
- *Local government* — the City of Casey provides direct financial support of less than \$20 000 per year, however provides extensive in-kind support through a peppercorn rental for NCLC's facilities, professional development opportunities for NCLC staff, and other forms of support.

In 2006, Narre CLC received \$726 369 ACFE Board funding, comprising of:

- \$455 938 for delivery;
- \$125 000 for Youth Pathways Program;
- \$38 000 for ACFE Youth Strategy for Young Learners;
- \$29 620 for Community Learning partnership; and
- \$77 811 for other purposes and initiatives.

Figure A.4

#### NCLC ACFE BOARD FUNDING COMPOSITION, 2006



Source: ACFE Board, unpublished data.

Fee-for-service activity accounts for 16 per cent of revenues, with 20–25 per cent of ACE learners accessing services on a fee-for-service basis.

### *Economic and social contribution*

NCLC offers a wide range of ACE programs that can develop the skills of learners to improve their occupational capabilities, or prospects for further study or employment.

NCLC particularly focuses on meeting the needs of young people in the area, such as through delivering VET in schools and its involvement in the Youth Pathways program. There is an emphasis on supporting young learners through transition stages and NCLC has developed strong linkages with local businesses and other organisations to provide pathways for ACE learners. As an example, NCLC works closely with the local Chamber of Commerce to secure work placements and mentoring opportunities for learners. Such linkages often flow from NCLC staff taking the initiative to become involved in other community organisations and leveraging the opportunities to benefit both NCLC and the other organisation.

NCLC endeavours to be accessible, inclusive and responsive to its local community, which includes some groups with high needs for social services. To this end, NCLC occasionally waives course fees for those experiencing particularly high need and low capacity to pay.

NCLC fulfils a vital community service by providing referral services to other government and non-government supports. People presenting to NCLC who may not be ready to undertake an ACE program are provided with assistance and referrals that meet their more immediate needs. People who require some form of assistance but feel unsure about seeking it or about who they should approach to gain assistance feel comfortable accessing NCLC. As an organisation that sees around 1500 people each week, many of whom are experiencing disadvantage, the non-threatening, integrated services delivered by NCLC provide an opportune time for interventions. This is an invaluable community service that directly assists community members in need of help, whose capacity or likelihood of accessing that help unaided is low.

More broadly, NCLC provides input into a range of relevant policy areas — such as education, youth and local government policy — through a range of channels. NCLC encourages staff to participate in networks, conferences and policy discussions to share their expertise with others and to ensure the needs of their community are considered.

NCLC has deliberately set out to respond to the needs of its local community through continuously revising the programs offered and complementing the services provided by other local, community and government organisations.

## **A.2 Colac Otway Shire**

This section describes ACE activities in the Shire of Colac Otway (Colac Otway). Colac Otway is located in Victoria's south-west, encompassing the towns of Colac and Apollo Bay (see Figure A.5). In 2006, Colac Otway had a population of 20 297, with Colac — a key regional industrial, commercial and service centre — accounting for around 12 000 people.

Figure A.5  
**COLAC OTWAY SHIRE**

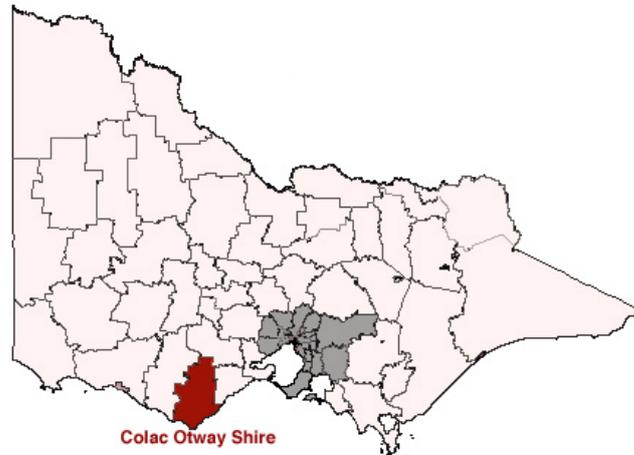
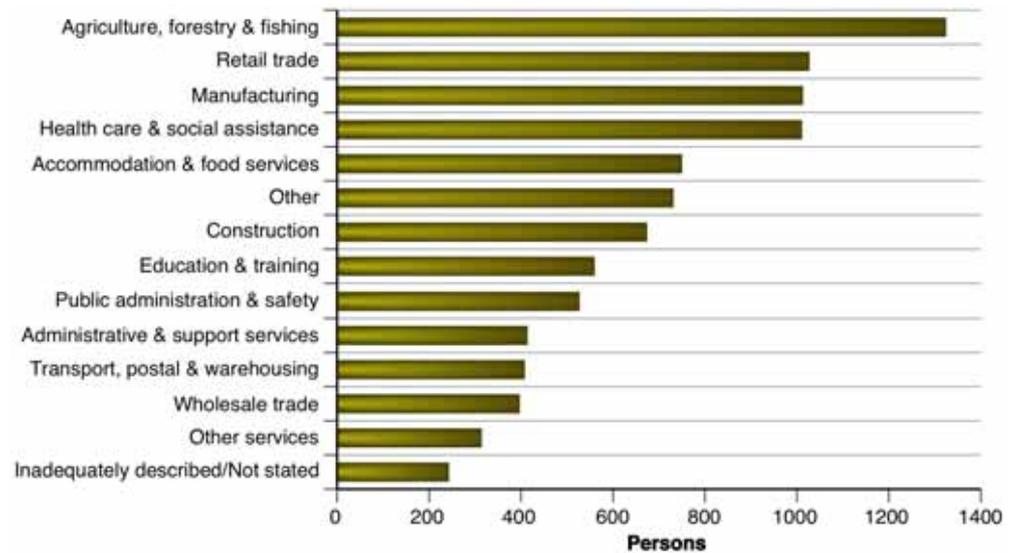


Figure A.6 profiles Colac Otway’s industry structure in terms of the number of people employed in each sector.

Figure A.6  
**COLAC OTWAY SHIRE — EMPLOYMENT BY SECTOR**



Source: ABS 2007b

Note: 'Other' includes the following sectors: mining; electricity, gas, water & waste services; rental, hiring & real estate services; arts & recreation services; information media & telecommunications; financial & insurance services; and professional, scientific & technical services.

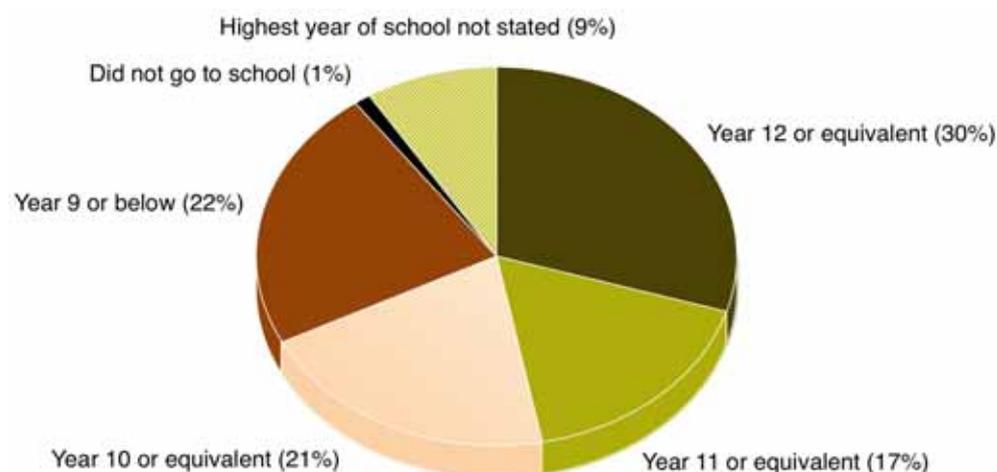
Colac Otway’s leading employment sector is agriculture, forestry and fishing, which employs around 1320 people, representing 14.1 per cent of employed persons in the Shire. Other leading sectors by employment are retail trade, manufacturing, health care and social assistance, and accommodation and food services. This reflects an industry structure centred on primary industries (principally timber, fishing, cropping and dairying), downstream manufacturing industries, and tourism.

Reflecting this industry and employment structure, the qualifications of Colac Otway’s workforce has a strongly vocational orientation. Within Colac Otway, there are more than twice as many certificate-level qualifications held (most commonly Certificate III and IV) than bachelor, graduate or postgraduate qualifications (ABS 2007f).

As shown by Figure A.7, at least 23 per cent of Colac Otway’s over fifteen population who are no longer at school did not complete Year 10 or above.

Figure A.7

**HIGHEST YEAR OF SCHOOL COMPLETED FOR PERSONS NO LONGER AT SCHOOL**



Source: ABS 2007d.

In 2006, there were 853 ACE course enrolments at ACE providers delivering programs in the Colac Otway region and four ACE providers, namely: Otway Community College (then ‘Colac Adult and Community Education Inc’), Geelong Adult Training and Education Inc, Karingal Inc, and Otway Health and Community Services. In 2006, 753 of course enrolments were at Otway Community College, making it the largest ACE provider in the Shire. Otway Community College is profiled below.

### **Otway Community College**

Otway Community College has been a growing presence within the Colac area, and represents a significant training provider, business and community institution. Since 1994, when Otway Community College had an annual turnover of around \$200 000, it has expanded the scope and scale of its services to now provide a suite of education and community services generating annual turnover of around \$2.6–\$2.7 million. Throughout this evolution, Otway Community College has captured opportunities for new business processes and service areas, and consistently demonstrated its commitment to innovate and respond to changing community needs.

#### *Service delivery*

Otway Community College has expanded from being a small adult education provider, delivering a core ACE curriculum of literacy, numeracy, and adult education, to become a significant adult education and training provider involved in a broad range of services. These services include:

- *Education and training* — courses may be accredited or non-accredited, and include:
  - *general education*, including VCE, VCAL, General Education for Adults, ESL, and literacy and numeracy courses;
  - *vocational education*, including business and administration, hospitality, training in licensed practices (such as forklift driving), and traineeship programs;
  - *general interest*, including art and craft, cooking, dance, fitness, gardening, philosophy, writing and public speaking;
- *Disability services* — Otway Community College provides:
  - *training*, through Adult Training Support Services;
  - *leisure, recreation and community access*, for people with high support needs, through NEXUS;
  - *vocational training and employment*, through the Botanic Café and Gallery, which employs and trains people with moderate support needs; Design a Copy, which employs around eight people with intellectually disabilities; and a range of supported employment programs for people with a mild intellectual disability;
- *Employment services* — including the Community Jobs Program, which provides paid work and training to certain unemployed people; Job Placement Employment and Training; and ACE Works, which assists people to transition to ongoing employment by providing training and experience working for the Shire;
- *Business development* — Otway Community College provides fee-for-service training and consultancy across a range of areas; and
- *Community services* — Otway Community College provides counselling, supported housing, community transport and other services in response to community needs.

By number of course enrolments, the most popular courses delivered at Otway Community College in 2006 were in the areas of:

- Hospitality, 178 enrolments;
- Disability and aged care, 138 enrolments;
- Primary industries, 82 enrolments;
- General education, 38 enrolments; and
- VCE / VCAL, 35 enrolments.

#### *Management and operations*

Otway Community College is governed by a Committee of Management, comprising seven volunteer members, who are each elected for two-year terms. The Committee appoints a Chief Executive Officer, who is responsible for day-to-day management. Management aims to optimise the benefits delivered to the community by limiting operational costs through initiatives such as the sharing of policies, procedures and forms with similar types of organisations.

Otway Community College employs 73 people (approximately forty-three full time equivalents), positioning the organisation as one of Colac's ten leading employers. Otway Community College is supported by a small number of volunteers who assist primarily with ESL classes.

Otway Community College draws its revenues from increasingly diverse sources. While government remains a significant source of funding (around 91 per cent of revenues), Otway Community College attracts funding to achieve multiple educational, economic and social policy imperatives. An overview of government funding sources is set out in Table A.1.

Table A.1

#### **GOVERNMENT FUNDING SOURCES**

<b>Government</b>	<b>Program or service</b>	<b>Sponsoring agency</b>
<b>Commonwealth Government</b> (around 9 per cent of revenue)	Job Placement Employment and Training	The Department of Employment and Workplace Relations
	Disability Business Services	The Department of Families and Community Services and Indigenous Affairs
	Youth Pathways	The Department of Education, Science and Technology
<b>Victorian Government</b> (around 81 per cent of revenue)	Approved education and training services	The ACFE Board
	Disability programs	The Department of Human Services
	Community Jobs Program	The Department of Innovation, Industry and Regional Development
<b>Colac Otway Shire Council</b> (less than 1 per cent of revenue)	Funding (not specified)	Colac Otway Shire Council

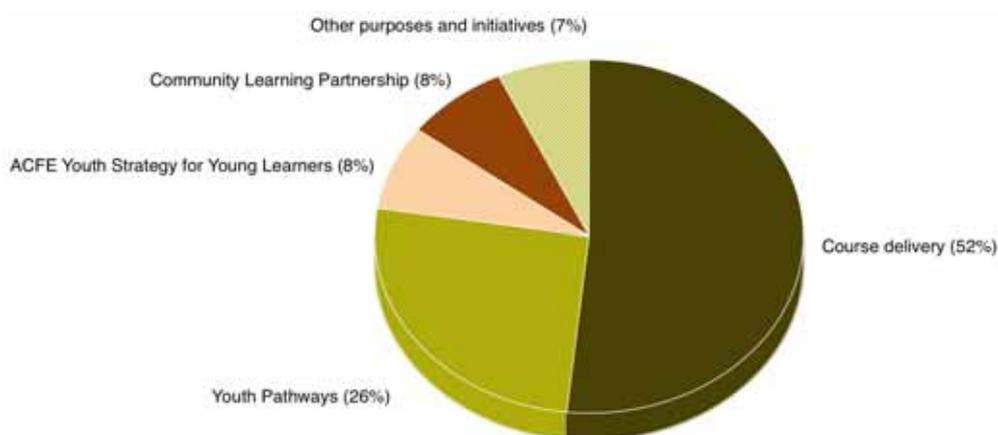
Source: Otway Community College, personal correspondence.

In 2006, Otway Community College received \$384 494 ACFE Board funding, comprising of:

- \$199 095 for delivery;
- \$100 000 for Youth Pathways;
- \$30 000 for Community Learning Partnership;
- \$29 353 for ACFE Youth Strategy for Young Learners; and
- \$26 046 for other purposes and initiatives.

Figure A.8

#### OTWAY COMMUNITY COLLEGE ACFE BOARD FUNDING COMPOSITION



Source: ACFE Board, unpublished data.

Additionally, Otway Community College generates around 9 per cent of revenues through fee-for-service activities. As an established RTO, Otway Community College is regularly engaged to deliver services through sub-contracts and other fee-for-service arrangements. As examples, Otway Community College is regularly sub-contracted to deliver courses for TAFEs, AMES and some government-sponsored employment training programs. These arrangements provide benefits to both the contracting organisation and Otway Community College, in terms of:

- *for the contracting organisation*, Otway Community College provides a local, established training provider with infrastructure, expertise and curricula to deliver a range of courses; and
- *for Otway Community College*, these arrangements offer additional, diverse income streams and add scale to their operations.

#### *Economic and social contribution*

The range of services delivered by Otway Community College is determined by the Committee of Management through the strategic planning process. Otway Community College has demonstrated its capacity to respond to changing industry and community needs:

- *Changing industry needs* — Otway Community College regularly reviews its education and training programs to ensure that services meet the needs and expectations of learners and local industry. Otway Community College works closely with local industries, and has previously provided programs tailored to the forestry, dairying, transport and laundry sectors. As these sectors have matured and others have developed, Otway Community College has adjusted its services accordingly. As an example, Otway Community College has expanded its range of health and aged care training programs in response to the growth of the industry in the region. Students of these programs regularly secure ongoing employment prior to completion.
- *Changing community needs* — Otway Community College delivers a range of services that have arisen from unmet community needs. As an example, a number of migrants from Sudan and China have recently settled in the Colac Otway region. As well as providing ESL courses and vocational training to these migrants, Otway Community College has also provided assistance with accommodation, child care and transport. Otway Community College recently purchased a people mover vehicle to enable Sudanese migrant women to attend class and take their children to child care. By addressing the transportation constraints facing the Sudanese women, Otway Community College enabled them to access ESL classes — a crucial intervention as gaining proficiency in English is a key enabler in assisting migrants to participate fully in their community and to secure employment.
- *Employment outcomes* — across the main areas of vocational course delivery, which are: Certificate II and III in Aged care and Disability; Certificate II & III in Business; Certificate II in Community Services; Certificate II in Integration Aide; and Certificate III in Personal Support (HACC) over 70 per cent of learners achieve employment outcomes.

In addition, Otway Community College has been catalytic in its involvement in a range of community initiatives over the last ten years. As examples, Otway Community College convened a group called the Colac Otway Project for Youth Strategies, which then developed a series of Youth Strategies which were adopted by the Colac Otway Shire, and founded the South-West Disability Network of disability services.

As a flexible, efficient and cost-effective training platform, Otway Community College is well suited to tailor its services to regional need, bridging the gaps left by more formal education providers.

*Appendix B*

## Conceptual framework for analysing the social benefits of education

McMahon (1998) provides a conceptual framework and survey of empirical research relevant to the identification, measurement and valuation of the market and non-market benefits of lifelong learning.

Table B.1 and Table B.2 set out those private and public non-market benefits resulting from lifelong learning, noting that those relating to ACE in Victoria — as a distinct education and learning sector — are likely to comprise a subset of those identified by the framework. As examples, child care benefits to parents would not apply to ACE given the mature age of ACE learners, while reductions in deforestation would not apply given Victoria’s level of development and system of support payments and entitlements.

Table B.1

**PRIVATE NON-MARKET BENEFITS OF LIFELONG LEARNING**

<b>Health effects</b>	<ul style="list-style-type: none"> <li>• Reduced infant mortality</li> <li>• Lower illness rates</li> <li>• Greater longevity</li> </ul>
<b>Human capital produced in the home</b>	<ul style="list-style-type: none"> <li>• Children’s education enhanced</li> </ul>
<b>More efficient household management</b>	<ul style="list-style-type: none"> <li>• Higher returns on financial assets</li> <li>• More efficient household purchasing</li> </ul>
<b>Labour force participation rates</b>	<ul style="list-style-type: none"> <li>• Higher female labour force participation rates</li> <li>• Reduced unemployment rates</li> <li>• More part-time employment after retirement</li> </ul>
<b>Lifelong adaptation and continued learning</b>	<ul style="list-style-type: none"> <li>• Use of new technologies within the household</li> <li>• Obsolescence: human capital replacement investment</li> <li>• Curiosity and educational reading; educational television / radio</li> <li>• Utilisation of adult education programs</li> </ul>
<b>Motivational attributes</b>	<ul style="list-style-type: none"> <li>• Productivity of non-cognitive skills</li> <li>• Selective mating effects</li> <li>• Divorce and remarriage (potentially negative returns)</li> </ul>
<b>Non-monetary job satisfaction</b>	<ul style="list-style-type: none"> <li>• Non-monetary job satisfaction</li> </ul>
<b>Pure current consumption effects</b>	<ul style="list-style-type: none"> <li>• Enjoyment of classroom experiences</li> <li>• Leisure time enjoyment while in school</li> <li>• Child care benefits to parents</li> <li>• Hot lunch and school-community activities</li> </ul>

Source: McMahon 1998.

Table B.2

**PUBLIC NON-MARKET BENEFITS OF LIFELONG LEARNING**

<b>Population and health effects (controlling for income)</b>	<ul style="list-style-type: none"> <li>• Lower fertility rates</li> <li>• Lower net population growth rates</li> <li>• Public health</li> </ul>
<b>Democratisation (controlling for income effects)</b>	<ul style="list-style-type: none"> <li>• Democratisation</li> <li>• Human rights</li> <li>• Political stability</li> </ul>
<b>Poverty reduction and crime (controlling for income)</b>	<ul style="list-style-type: none"> <li>• Poverty reduction</li> <li>• Homicide rates</li> <li>• Property crime rates</li> </ul>
<b>Environmental effects (controlling for income)</b>	<ul style="list-style-type: none"> <li>• Deforestation (for cooking, and export, given low education)</li> <li>• Water pollution</li> <li>• Air pollution</li> </ul>
<b>Family structure and retirement (controlling for income) impacts</b>	<ul style="list-style-type: none"> <li>• Higher divorce rates</li> <li>• Later retirement</li> <li>• More work after retirement</li> </ul>
<b>Community service effects of education (controlling for income)</b>	<ul style="list-style-type: none"> <li>• Time volunteered to community service within income strata</li> <li>• Generous financial giving within income strata</li> <li>• Knowledge dissemination through articles, books, television, radio, computer software and informally</li> </ul>

Source: McMahon 1998.

## Appendix C

### Source material

Adult, Community and Further Education Board 2006, *Adult, Community and Further Education Board Annual Report 2005-06*, [www.acfe.vic.gov.au/abtpub.htm](http://www.acfe.vic.gov.au/abtpub.htm), viewed 30 August.

Adult, Community and Further Education Board 2006b, *Guidelines and Criteria for Registration as an Adult Community Education Organisation with the ACFE Board*, Victoria.

Adult, Community and Further Education Board 2007, *Adult, Community and Further Education Board 2007, Adult, Community and Further Education Board Annual Report 2006-07*, Melbourne.

The Adult, Community and Further Education Board 2007b, About ACFE, <<http://www.acfe.vic.gov.au/abt.htm>>, viewed 15 October 2007.

The Adult, Community and Further Education Board 2007c, *Funding Policy and Guidelines 2007*, Melbourne.

Adult Learning Australia 2006, *The value of ACE providers — A guide to the evidence base*, <[www.ala.asn.au](http://www.ala.asn.au)>, viewed 30 August 2007.

Australian Bureau of Statistics 2006, *Education and Training Experience, Australia 2005*, Cat. No. 6278.0, Canberra.

Australian Bureau of Statistics 2006, *Year Book Australia 2006*, Cat. No. 1301.0, ABS, Canberra.

Australian Bureau of Statistics 2007a, *2006 Community Profile Series — Casey (C)*, Cat. No. 2001.0, ABS, Canberra.

Australian Bureau of Statistics 2007b, *2006 Community Profile Series — Colac Otway (S)*, Cat. No. 2001.0, ABS, Canberra.

Australian Bureau of Statistics 2007c, *2006 20680 — Highest Year of School Completed by Age by Sex for Persons no longer at school — Casey (C)*, ABS, Canberra.

Australian Bureau of Statistics 2007d, *2006 Census Tables: 20680 — Highest Year of School Completed by Age by Sex for Persons no longer at school — Colac-Otway (S)*, ABS, Canberra.

Australian Bureau of Statistics 2007e, *2006 Census Tables: 20680 — Non-School Qualification: Level of Education by Age by Sex — Casey (C)* ABS, Canberra.

Australian Bureau of Statistics 2007f, *2006 Census Tables: 20680 — Non-School Qualification: Level of Education by Age by Sex - Colac-Otway (S)*, ABS, Canberra.

Australian Bureau of Statistics 2007g, *Australian National Accounts: State Accounts*, Cat. No. 5220.0, Canberra.

- Australian Bureau of Statistics 2007h, *Government Finance Statistics, Australia, 2005-06*, Cat. No. 5512.0, Canberra.
- Bardon, B 2006, *Community education and national reform: discussion paper*, Department of Education, Science and Training, Canberra.
- Becker, G 1993, *Human capital: a theoretical and empirical analysis, with special reference to education*, third edition, University of Chicago Press, Chicago.
- Behrman, J 1997, 'Conceptual and measurement issues', in Behrman, J & Stacey, N (eds.), *The Social Benefits of Education*, University of Michigan Press, pp. 17–67.
- Birch, E, Kenyan, P, Koshy, P & Wills-Johnson, N 2003, *Exploring the social and economic impacts of adult and community education*, NCVER, Adelaide.
- Bracks, S 2001, *Growing Victoria Together*, Melbourne.
- City of Casey 2007, Population, <[www.casey.vic.gov.au](http://www.casey.vic.gov.au)>, viewed 7 November 2007.
- Colac Adult and Community Education Inc. 2007, A Guide to Colac ACE, <[www.colacace.com.au](http://www.colacace.com.au)>, viewed 25 October 2007.
- Colac Otway Shire Council n.d., Colac Otway Shire Fact File, <<http://www.colacotway.vic.gov.au>>, viewed 24 October 2007.
- Clemans, A, Hartley, R & Macrae, H 2003, *ACE outcomes*, NCVER, Adelaide.
- Comings, J, Sum, A & Uvin, J 2000, *New skills for a new economy: adult education's key role in sustaining economic growth and expanding opportunity*, Massachusetts Institute for a New Commonwealth, Boston.
- Considine, M 2004, *Building Connections — Community Strengthening and Local Government in Victoria*, Review paper prepared for Local Government Victoria, Department for Victorian Communities, Melbourne.
- Cross, J 2004, *Adult learning: Removing barriers, not creating them*, Adult Learning Australia paper presented at the APEC Symposium on Lifelong Learning, Taipei, July 2004.
- CWCC 2007, *The changing face of community business: ACE Providers Business Survey*, Report to the Adult, Community and Further Education Board, Melbourne.
- Department of Education, Science and Training 2003, *You can too — Adult learning in Australia, a consultation paper*, Canberra.
- Department of Planning and Community Development and the Adult Community and Further Education Board 2007, *Request for Quotation: Economic Benefit of Investment in Adult Community and Further Education (ACE) in Victoria*, Melbourne.
- Falk, I, Balatti, J & Golding, B 2000, *Building Communities: ACE Lifelong Learning and Social Capital*, Language Australia, Melbourne.
- Ferrer, A, Green, D & Riddell, W 2006, 'The Effect of Literacy on Immigrant Earnings', *Journal of Human Resources*, vol. 41, no. 2, pp. 380-410.

Fretwell, DH & Colombano, JE 2000, *Adult Continuing Education: An Integral Part of Lifelong Learning, Emerging Policies and Programs for the 21st Century in Upper and Middle Income Countries*, World Bank Discussion Paper, Washington.

Golding, B 2006, Getting connected: Insights into social capital from recent adult learning research, paper presented at the *Adult Learning Australia Conference*, Melbourne, 24 November.

Graycar, A 1999, Crime and social capital, Australian Institute of Criminology paper presented at the *Australian Crime Prevention Council Conference*, '19<sup>th</sup> Biennial International Conference on Preventing Crime', Melbourne, 20 October.

Grossman, M & Kaestner, R 1997, 'Effects of education on health', in Behrman, J and Stacey, N (eds.), *The Social Benefits of Education*, chapter 4, pp. 69–124, University of Michigan Press.

Heckman, J and Masterov, D 2007, The productivity argument for investing in young children, T.W. Schultz Award Lecture at the Allied Social Sciences Association annual meeting, Chicago, January 5–7.

House, J, Robbins, C & Metzner, H 1982, 'The association of social relationships and activities with mortality: Perspective from the Tecumseh community health study', *American Journal of Epidemiology*, Vol. 116, No. 1, pp. 123–140.

.id 2007, City of Casey: Community Profile, <<http://203.84.234.220/Profile/Casey/Default.aspx?id=109>>, viewed 25 October 2007.

Kosky, L 2002, *Knowledge and Skills for the Innovation Economy*, Melbourne.

Kosky, L 2004, *Future Directions for Adult Community Education in Victoria*, Melbourne.

Laplagne, P, Glover, M & Shomos, A 2007, *Effects of Health and Education on Labour Force Participation*, Staff Working Paper, Productivity Commission, Melbourne, May.

Machin, S 2006, 'Social Disadvantage and Education Experiences', *OECD Social, Employment and Migration Working Papers*, Paris.

Maynard, R and McGrath, D 1997, 'Family structure, fertility and child welfare', in Behrman, J & Stacey, N (eds.), *The Social Benefits of Education*, University of Michigan Press, pp. 125–174.

McMahon, W 1998, 'Conceptual Framework for the Analysis of the Social Benefits of Lifelong Learning', *Education Economics*, Vol. 6, No. 3, pp. 309–346.

McMahon, W 1999, *Education and Development — Measuring the Social Benefits*, Oxford University Press, New York.

McMahon, W 2001, 'The Impact of Human Capital on Non-Market Outcomes and Feedbacks on Economic Development in OECD Countries', in Helliwell, JF (ed.), *The Contribution of Human and Social Capital to Sustained Economic Growth and Well-being: International Symposium Report*, Human Resources Development Canada and OECD.

- McMahon, W 2004, 'The Social and Externality Benefits of Education', in Geraint, G and Johns, J (eds.), *International Handbook on the Economics of Education*, Aldershot, pp. 211–259.
- McMahon, W 2006, 'Education Finance Policy: Financing the Nonmarket and Social Benefits', *Journal of Education Finance*, Vol. 32, No. 2, pp. 264–284.
- Ministerial Council on Education, Employment, Training and Youth Affairs 2002, Ministerial Declaration on Adult Community Education, <[www.mceetya.edu.au](http://www.mceetya.edu.au)>, viewed 30 August 2007.
- Moretti, E 2005, 'Social Returns to Human Capital', *NBER Reporter*, Spring.
- Narre Community Learning Centre 2007, About us, <[www.narreclc.net.au](http://www.narreclc.net.au)>, viewed 25 October 2007.
- Narre Community Learning Centre Inc. 2007, *Annual Report 2006*, Melbourne.
- NIACE, The National Institute of Adult Continuing Education (England and Wales), 2003, *Learning and Health*, NIACE Briefing Sheet, <[www.niace.org.uk](http://www.niace.org.uk)>, viewed 5 November 2007.
- O'Connell, P 1999, *Adults in Training: An International Comparison of Continuing Education and Training*, the Organisation for Economic Cooperation and Development — Centre for Educational Research and Innovation, Paris.
- Office for Women 2007, *Women in Australia 2007*. Commonwealth of Australia, Canberra.
- Office of Training and Further Education (n.d.), *Training and Further Education in Victoria: ACE Providers*, Victorian Government.
- Organisation for Economic Co-operation and Development (OECD) 2001, *The Well-being of Nations: the Role of Human and Social Capital*, OECD, Paris.
- Organisation for Economic Co-operation and Development (OECD) 2002, 'Rethinking human capital', in *Education Policy Analysis 2002*, Paris, pp. 117-131.
- Organisation for Economic Co-operation and Development (OECD) 2004, *Education at a Glance 2004*, Paris.
- Productivity Commission 2003, *Social Capital: Reviewing the Concept and its Policy Implications*, Research Paper, AusInfo, Canberra.
- Putnam, R 1993, *Bowling Alone: The Collapse and Revival of American Community*, Touchstone, New York.
- Rosen, S 1989, 'Human Capital', in J Eatwell, M Milgate and P Newman (eds.), *The New Palgrave Social Economics*, W W Norton, New York.
- Sanguinetti, J, Waterhouse, P, Maunders, D, & 22 teacher co-researchers 2004, *The ACE Experience: Pedagogies for Life and Employability*, May.
- Silles, M 2007, 'Adult education and earnings: Evidence from Britain', *Bulletin of Economic Research*, vol. 59, no. 4, pp. 313-326.

Smith, VK 1997, 'Effects of education on health', in Behrman, J & Stacey, N (eds.), *The Social Benefits of Education*, University of Michigan Press, pp. 175–218.

Stanwick, J, Ong, K & Karmel, T 2006, *Vocational education and training, health and wellbeing: Is there a relationship?*, National Centre for Vocational Education Research, Adelaide.

Townsend, R 2006, *Adult, community and public education as primary sites for the development of social capital*, Australian Journal of Adult Learning, Vol. 46, No. 2, pp. 153–174.

Volkoff, V & Walstab, A 2007, *Setting the Scene: Investigating Learning Outcomes with a View to the Future*, Report to the ACFE Board Victoria, Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne, February.

Walstab, A, Volkoff, V & Teese, R 2005, *ACE Connects: Building pathways to education, employment and community engagement. ACE longitudinal study — 2005 survey*, Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne.

Wolfe, B & Haveman, R 2001, 'Accounting for the Social and Non-market Benefits of Education', in Helliwell, JF (ed.), *The Contribution of Human and Social Capital to Sustained Economic Growth and Well-being: International Symposium Report*, Human Resources Development Canada and OECD.